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# OCCUPATIONAL STRESS AND HEALTH AMONG HOME HEALTH CARE WORKERS

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# ABSTRACT

Home health care workers fill an essential role in the daily lives of elderly persons. However, the work is physically and emotionally exhausting. This mixed-methods study explicates sources of stress found in agency-based caregiving in the post-industrial economy. Agencies operate under a highly regulated legal and organizational framework, but little is known about how to reduce sources of job strain to better protect workers' health. Drawing on existing occupational health stress theories (Karasek; Siegrist; Landsbergis) and sociological stress theory (Pearlin; Fenwick & Tausig), this study explores how workers' experiences and agency characteristics are related to home health care worker's occupational health and self-rated health.

Multinomial logistic regression models estimate the health impacts of occupational stressors among home health care workers using data from the CDC's National Home Health Aide Survey (n=3,235). Qualitative analysis feature the analysis of both agency executives' and home health care workers' narratives (n=45) from nine upstate New York home care agencies. By interrogating upper and mid-level management in addition to the workers, the agency's inner workings were made more transparent.

Detailed results upheld Demand/Control/Support and Effort-Reward Imbalance theories while also demonstrating that discrimination on the job and double burden care routines are negatively associated with health. Unexpectedly, blacks were less likely to report injuries than whites. The finding suggests black are under-reporting and may be at risk for occupational health inequality because they are not accessing workers' compensation. Aides report financial strain, exposure to poor working conditions and lack of respect on the job as centrally important. Agency leaders' responses vary, but generally concede that high-level stressors "trickle down" and can become work-related stressors for home health aides. Lack of training and low-quality training are also implicated in impeding progress in addressing home care workers' health.

Demand for home health care workers is urgent as the baby boomers age into later life. Policy work in a changing health care system requires coordination at the federal, state, and agency levels to achieve appropriate compensation, updated training, greater access to occupational health care and healthier work conditions - leading to improvement in the quality of home-based long-term care.

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Eric Zoeckler
*…my joint heir in the grace of life, my friend, and my love*

and

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# CHAPTER 1
# HOME CARE WORKERS' STRESS AND HEALTH

Home health care workers serve the elderly by providing a wide variety of domestic, personal care and medical services, often filling an essential role in the daily lives of elderly persons. As with family caregivers or informal caregivers, the work of paid home health care workers is physically and emotionally exhausting (McCaughey et al., 2012, 2014; Markannen et al., 2014) and yet provides an opportunity to engage in highly meaningful work (Diamond, 1992; Stone, 2010). Home health care workers frequently work under precarious work arrangements for low wages and in poor work conditions (Stone, 2004; McCaughey, et al., 2012). Furthermore, the pathways to high quality training and appropriate pay scales for the workers are impeded by public policy that keeps reimbursement rates for paraprofessional services low and severely restricts home health care agencies from offering pay rates commensurate with more effective recruitment and retention strategy.

In spite of these difficulties, home health aides express a desire to avoid burnout, to be respected for the valuable work they are doing in the community, and to pursue more pathways for professional development leading to increased wages (Stacey, 2011). But with demanding schedules and unclear work arrangements, like many other low-wage workers, care workers experience unstable and unpredictable work lives. They report financial strain, wage theft, hazardous conditions at work, difficulty accessing health care via workers' compensation, and an overall lack of dignity on the job (Zoeckler, Lax & Zanoni, 2015). Home health care workers face a variety of occupational health risks including musculoskeletal injury from unsafe patient handling, diseases arising from exposure to blood-borne pathogens via needle sticks, and exhaustion from long hours (Markkanen et al., 2014).

Work conditions involve intense physical and emotional labor in a complex social environment with unique pressures arising from the web of relationships among the patient, the patient's family members, the home health care agency and the worker. Additionally, for the home health care worker, the client's home becomes a workplace that is not always the same from day to day and is difficult to regulate.

Psychosocial exposures, such as work-related stressors, may also impact home health aides' health negatively. Most researchers who study occupational stress characterize job strain as a condition in which high demands are placed on the worker in combination with low control over how the job is done, which is additionally moderated by low workplace support (Karasek & Theorell, 1979). Additionally, job strain is believed to be the result of an imbalance between high effort and low reward (Siegrist, 2000). These factors are likely impacted by emerging or underappreciated sociological factors that affect stress levels, such as changing economic or institutional conditions. However, little is known about these sources of strain occurring in home health aides or how they might be reduced.

Connecting the experience of work-related stressors to workers' health requires an advanced understanding of how stress arises and persists in health care settings. The study I present in this dissertation provides this needed information by addressing a central research question: What kinds of workplace and social stressors are associated with general self-reported health and occupational health? As this dissertation unfolds, the statistical model attempts to not only isolate variables known in extant literature to impact general and occupational health, but also to expand the social context to the agency-level (Pearlin, Schieman, Fazio, & Meersman 2005; Muntaner, Solar, Vanroelen, Martinez, Vergara, Santana, Castedo, Kim, & Benach 2010; Schnall, Dobson, & Landsbergis 2016).

## RESEARCH AIMS

This research examines the occupational stressors and health among health care workers paid to care for the elderly in their homes. Both home health care agency characteristics and individual home health care workers' experiences are studied, nationally and in New York State. This study augments existing theoretical models by relating new factors arising from the nature of agency-based caregiving work, the post industrial economy, and the changing nature of families. The research design involves two phases, quantitative and qualitative, respectively. Phase I leverages the CDC's Home Health Aide Survey (n=3,377) and Phase II features analysis of both agency executives' and home health care workers' narratives. By interrogating upper and mid-level management in addition to the rank and file workers, this research aimed to make the agency's inner workings more transparent.

This research addresses questions about how work-related stressors and health can be characterized for this occupational group and enhances the extant literature on work-related stress by drawing on sociological frameworks for conceptualizing the processes leading to work-related strains (Pearlin, 1989). This research aims to discover the nature of the mediating relationships between exposure to stressors and health outcomes, as may be found in the nature of the work itself, agency-level factors, and socio-demographic characteristics. In Phase I, I explore these mediating concepts in stages with statistical modeling. Stages included:

1. Work-Related Stressors: Worker Level
2. Socio-demographics
3. Agency-Level Buffers: Training and Support
4. Work Arrangements
5. Agency Characteristics

In the phase two, I engaged in observation of nine home health agencies and also conducted 45 interviews to analyze the experiences of home health care workers and gain agency leaders

perspectives to further understand these mediating factors and their relationship to the home health aides' health.

Both the quantitative phase and the qualitative phase of the research have direct policy implications with fiscal consequences, but more importantly policy goals work toward alleviating occupational health burdens for home health care workers by promoting a stabilization of working life through more informed work organization, better work arrangements and better wages.

## BACKGROUND/CONTEXT

The current health care delivery system in the U.S. relies heavily on the patient him/herself, friends and family of the person in failing health to provide for most basic health care needs. However, collective concern about unmet caregiving needs has spawned community-based organizations that attempt to improve the job quality of care workers of the elderly and infirm (Poo, 2014). They provide advocacy and informational clearinghouse functions for both the long-term care workers and other advocates. These organizations, and others like them, educate members, and advance political platforms to address the unique concerns of home health aides.

Between 1938 and 1974, all domestic service work was excluded from regulation under the Fair Labor Standards Act (FLSA) because this kind of work was considered private and not subject to regulation by the government (Lippett, 2011, p. 3). In 1974, the FLSA was amended to include domestic service and provides that employees be compensated for overtime, but paid care work delivered in private homes, paid for by third parties, or done by untrained personnel was exempt from the law under the "Companionship Exemption" and other exemptions outlined

in Section 552. As the long-term care industry has expanded rapidly, health care employees have increasingly challenged the government to fully acknowledge care work being done in private homes as legitimate work under the FLSA and not be subject to the "companionship exemption" (Fowler vs. Incor, 2008). On September 17, 2013, the U.S. Department of Labor extended FLSA protections--including minimum wage and overtime pay--to home care workers nationwide, effective January 1, 2015.

In a general atmosphere of low wages and low regulation mainly due to market pressures to keep costs down, regulatory agencies have noted non-compliance with existing labor laws in the case of home health care workers (Janz 2005; Bernhardt, Spiller, & Theodore 2013). In a survey of "unregulated work" it was found that home health care comprised 4.4% of all unregulated work and moderately serious "wage and hour" violations were the most frequently noted violations in the overall regulation of this industry (Bernhardt, Spiller, & Theodore, 2013).

## Defining Home Health Care Work

Home health care work has been defined in a variety of ways. The North American Industry Classification System developed in 1997 by the Office of Management and Budget for use by federal agencies, places paid home care work in two industries:

1.) Home Health Care Services (NAICS 621610)

> This industry comprises establishments primarily engaged in providing skilled nursing services in the home, along with a range of the following: personal care services; homemaker and companion services; physical therapy; medical social services; medications; medical equipment and supplies; counseling; 24-hour home care; occupation and vocational therapy; dietary and nutritional services; speech therapy; audiology; and high-tech care, such as intravenous therapy. (U.S. Census http://www.census.gov/econ/isp/sampler.php?naicscode=621610&naicslevel=6#)

2.) Services for the Elderly and Persons with Disabilities (NAICS 624120)

> This industry comprises establishments primarily engaged in providing nonresidential social assistance services to improve the quality of life for the elderly, persons diagnosed with intellectual and developmental disabilities, or persons with disabilities. These establishments provide for the welfare of

> these individuals in such areas as day care, nonmedical home care or homemaker services, social activities, group support, and companionship. (U.S. Census http://www.census.gov/econ/isp/sampler.php?naicscode=624120&naicslevel=6#)

The U.S. Department of Labor has created at least two occupation names for the kind of paid home care workers. One of the areas is "Healthcare Support Occupations." In this category are "home health aides" that

> provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.

Another area where the Bureau of Labor Statistics recognizes paid direct care workers is "Personal Care and Service Occupations." In this category are "personal care aides" that

> assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals. May provide assistance at non-residential care facilities. May advise families, the elderly, convalescents, and persons with disabilities regarding such things as nutrition, cleanliness, and household activities" (http://www.bls.gov/oes/current/oes_ny.htm#00-0000).

Other job titles or occupation names in use in the state of New York are "nurse aide," "home health aide," "personal assistant," "senior aide," "home care worker," "personal care aide," In many states, like New York State, varying levels of training are reflected in job titles. The work is physically and emotionally exhausting. Home health care workers often work extended shifts with no formal breaks, often must remain on call 24 hours a day and are exposed to heavy lifting and other poor working conditions (McCaughey et al., 2002; Markannen et al. 2014).

For the purposes of this study, the job title is less relevant than the specific criteria for selecting participants in the sample frame. In the NHHAS, home health care workers were eligible for the study "if they were: directly employed by the [home care] agency and provided assistance with ADLs, including eating, toileting, bathing, dressing and transferring" an elderly person with the care taking place in the home. Those providing only transportation or

companionship, for example, were excluded. As I am using the data from the NHHAS for the quantitative phase, I am adhering to the same selection criteria for participants in the qualitative phase. Similarly, I adhere to the NHHAS criteria for agency selection (Sondik, Madans, & Sisk, 2010, p. 6). These criteria provide close approximation of the current home health care workforce demographics. The home health care workforce is predominantly made up of women (91%), and non-whites (32% black, 17% Latino, 7% other). There are more foreign-born (24%) than in the general population and more than half work part-time (56%). Most have a high school education or less (58%).

## Home Health Care Provision as Low-Wage Work

Home health care workers earn very low wages. In 2013, average annual earnings were approximately $17,000 for a full time worker. In that same year, more than 20% of the home health care workforce relied on public health insurance (Markannen et al. 2014). In many ways the home health caregiving workforce mirrors the low-wage workforce more than the general health care workforce, sharing many of the most pressing concerns with those struggling to earn a living wage (Folbre 2012; Gerstel & Clawson 2014; Glasmeier & Farrigan, 2012). Low-wage work is different than other types of work. By definition, the pay is lower, but other specific problems including wage theft, insecure work arrangements, discrimination, and decreased attention to workplace hazards also tend to be more prevalent in low-wage work (Bernhardt, Spiller, Theodore, 2013).

The Great Recession left enduring economic scars with persistent recovery patterns that have created a proliferation of low paying jobs, while stalling mid-wage job growth. This situation has fundamentally altered the experience of work for thousands of workers and is

increasing income inequality to new heights (Bernhardt 2012; Plumer 2013). Most evidence indicates we can expect a very slow recovery with continued long-term unemployment and wage stagnation.

With the persistence of income inequality increasingly entrenched at a level not registered since before the Great Depression, the influence of the recent recession on income inequality is profound. The recovery from the recession is characterized as "unbalanced," because there are declining real wages in low-wage sectors, while at the same time the "lower wage industries constituted a high percentage of job growth relative to mid-wage job growth during the same period (National Employment Law Project, 2014).

Family income growth since 1980 demonstrates income inequality clearly (Mishel et al., 2012, p. 53-94). Those with the highest incomes were able to pull ahead at a faster rate than those with median incomes. Those with low incomes did achieve similar growth rates from time to time, but dominant patterns of stagnation were clear and never overcome, even before 1970. Patterns of income growth, trending over more than thirty years, demonstrate serious consequences of wage stagnation for workers of all ages (National Employment Law Project, 2014; Picketty & Saez, 2003). Young and middle aged adults struggle as they attempt to establish and maintain financial security for their families. Of those earning poverty-level wages, men now comprise 41.5% of the total, representing a large increase in that percentage since 1979. The reduction in the percentage of women earning poverty level hourly wages is indicative of women's moves into more than just "jobs to earn a little money on the side" toward more substantial full time employment in higher paying jobs. Yet, with so many more men working the low-wage jobs, it is likely that more households with children are comprised of couples

making ends meet with both earners earning poverty-level wages rather than households with one making the main sustaining wage and the other making a low wage.

## Disparate Health Risks for Low-Wage Workers

Risks of disease occurring are not equal among everyone in our society. The social standing and income level of a person may powerfully predict their risk of getting sick: the lower the income, the worse the health. Many researchers conclude that the more unequally wealth is distributed in a society, the poorer the health of those lower on the social ladder (Marmot, 1994; Kawachi et al., 1997; Wilkinson, 1996; Muntaner, 2009).

Because working adults spend so much of their time at work, it is important to become aware of the ways that work and the work environment impact health and contribute to disparities in health. Dangerous and stressful work conditions have always existed, but historically, at least some workers in difficult settings were compensated with higher wages and protective benefits to offset the built-in problem of monotony, exposure to hazards, and/or exploitive tendencies in management. With those protections largely absent in low-wage work, workers experience an increasingly elusive path to making a “decent living” under safe conditions (Williams & Rosenstock, 2015).

Low-wage jobs carry more occupational health and safety risks for workers than higher paying jobs. The resulting fatalities, injuries and illnesses force burdens on workers and their families. Increasing the proportion of low-wage jobs contributes directly to higher rates of chronic disease (Benach, et al., 2010, 2014; Muntaner et al., 2010; Leigh & Du, 2012) and disabling pain in the working population (Herin et al., 2014). This is especially disquieting because occupational illness is highly preventable. Leigh (2011, 2012) estimates costs for work-

related injury and illness (fatal and non-fatal) to be $39.1 billion annually, when both the medical and productivity costs for low-wage occupations are included in the analysis.

Temporary staffing and other low-wage work arrangements with high turnover rates have replaced fulltime work at living wages, allowing for a competitive advantage for employers who improve profit margins by cutting the costs they pay in wages and benefits. Employers become accustomed to the flexibility in their staffing plan, which translates into irregular work schedules (and paychecks) for workers. Hiring through temp agencies serves to shield employers from their legal obligations as employers, because the temporary employment arrangement makes less clear which entity (the employer or the temp agency) is responsible for maintaining a healthy workplace and provides an escape from strict compliance with health and safety standards. And temp agencies are able to strip away workers' benefits and pay wages well below the traditional rates (Plumer, 2013; Van Arsdale, 2013; Gonos & Martino, 2011; Purser 2009).

Low-wage jobs have become fundamental to the economy and it is crucial to examine this growing sector because those who work these jobs face the worst working conditions and are at serious risk of occupational injury or illness. The existence of low paying, precarious, temporary or unstable work arrangements creates a workforce at high risk of inadequate health due to the lack of a living wage, insecure work arrangements, potential for wage theft, poor health and safety conditions, lack of union representation and discrimination (Muntaner et al, 2010; Lipscomb et al., 2006). Those recently migrating to the United States are particularly vulnerable because they are more likely to find employment in low-wage, temporary jobs and more likely to experience discrimination on the job (Panikkar et al., 2013).

The job growth rate for home health care workers in New York State is 33% based on projections until 2022 (Table 1.1). These trends are likely to lead to increased poverty and

increased risk for work-related death, injury and illness. Current occupational stress paradigms require expansion to properly assess the wide variety of work-related stressors found in current social and economic conditions. Better quality of work life, increasing economic opportunities, and improvements in occupational health will require both workers and other advocates to generate a sustained effort for innovative solutions (Weil, 2014; Doussard, 2013; Fine, 2006; Baron et al., 2014; Freeman, 2004; Lax, 2006).

**Table 1.1: Home Health Care Work in New York State, May 2014**

| Job Title | Workforce Number (%) | Expected Growth Rate 2012-2022 | Median Hourly Wages 2014 |
|---|---|---|---|
| Home Health Aides | 146,550 (51%) | 45% | $10.37 |
| Personal Care Aides | 142,220 (49%) | 37% | $10.98 |
| Total Home Health Care Workers | 288,770 (100%) | 33% | $12.40 |
| All occupations | 8,810,950 (3.3%) | 11% | $19.65 |

(Bureau of Labor Statistics May 2014, http://www.bls.gov/oes/current/oes_ny.htm)

A multidisciplinary approach incorporating the fields of demography, sociology, epidemiology, labor studies, and gerontology will continue to elucidate the relationship between work-related stress and health to inform social policy aimed at improving work conditions at the agency and individual levels.

## THEORETICAL CONTRIBUTION

The relationship between work and health is complex and cannot be strictly divided between work-related health effects and non-work-related health effects. There is a relationship

between the two that is frequently ignored and certainly not well characterized. Factors relating work and health may or may not be purely additive, but are more likely connected through yet unobserved patterns. This research provides a more complete picture of mental and physical health of members of one occupation over time by examining not only the health conditions and mental states of the home health care worker, but also those social institutions involved in the employment of the home care workers. In this way, a foundation can be laid for discovery in the more complex way these areas are intertwined.

At first glance, understanding the relationship between work and health seem to consist of purely demographical and epidemiological questions. However, sociologists, anthropologists and gerontologist have explored aspects of paid care workers' lives related to health. In addition, fields, such as occupational epidemiology and occupational health psychology provide useful knowledge. In order to gain a more comprehensive understanding about the work-related stressors facing home health care workers, a variety of disciplinary lenses work together to elaborate new factors arising from the nature of caregiving work in the post-industrial economy.

Access to home health care worker experiences fills gaps in knowledge about service sector jobs in the New Economy, especially with regard to new types of physiological and psychological stressors that are emerging due to demanding work with low control, inadequate wages, poor workplace support and unstable work arrangements.

## RATIONALE

The mental and physical health of paid caregivers is impacted by not only conditions resulting from exposures at work, but also those social institutions involved in the employment of the home care workers. Psychosocial stressors taking place at work are a threat to good health

and contribute to the risk of chronic disease (Johnson, 2004). Conditions such as hypertension, cardiovascular disease, disordered sleep, musculoskeletal injury, anxiety, and depression have been implicated as the evidence mounts (Landsbergis, Schnall, & Dobson, 2009; Rugulies & Krause, 2008; Rugulies, Bültmann, Aust, & Burr, 2005). Links between this exposure and other conditions, such as musculoskeletal disorders, may also be emerging. Because occupational stress is a modifiable health risk, the redesign of work environments and changes in organizational culture can be implemented to ameliorate the threat.

Home health aides report finding deep meaning in their work and often request more training in how to do their job in a more effective way and how to do their job in a way that preserves their physical and mental well-being. They express a desire to avoid burnout. They express a desire to be respected as they are doing valuable work in the community. They express a desire for professional development pathways leading to increased wages.

Many elders are able to remain in their homes as they age and die when quality care is provided by nurses and nurse assistants in the home. The U.S. expects to face a growing need for caregiving occupations as the population ages. Training to undertake caregiving is minimal and specific health and safety training related to the care work itself is rarely adequate.

## SIGNIFICANCE

This research has potential to assist in shaping debates about the U.S. healthcare delivery system. Total federal spending on health care comprises nearly 18 percent of the nation's gross domestic product, twice the amount spent in most industrialized nations. In 2011, the U.S. spent nearly $554 billion to fund Medicare and Medicaid (21 percent of the total U.S. health care spent). Expenses related to the last six months of life amounted to about $170 billion, (28 percent

of Medicare spending) (Pasternak, 2015). But, with all these high costs, we have not always achieved high-quality long-term care and end-of-life care.

This research assists in defining occupational health conditions for the paid home health care workforce, elucidates health disparity at work, works against poverty-level wages and demeaning work, and seeking to improve quality of work. This research is aimed at reducing occupational health burdens for home health care workers and stabilizing a valid occupational pathway through improved pay, improved work organization, and increased social validation of this marginalized workforce. Paying attention to the home health care workers is expected to translate into improved quality of care for the elderly and disabled in their own homes, responding to an urgent need for cost-effective long-term care solutions as the baby boomers face their final years.

## DISSERTATION LAYOUT

Chapter 2 reviews defining literature, contrasting and blending theoretical traditions from public health, occupational health psychology and sociological literatures describing stress processes. Chapter 3 will define the mixed methods research design, giving rationale, study aims and analytical plans. Chapter 4 will explicate finding for the fully specified regression model, focusing on how theoretical traditions were upheld in the data analysis, while new factors emerged. Chapter 5 will feature the voices of the home health aides themselves as they narrate the way their working lives influence their mental and physical health. Chapter 6 centers on the insightful perspectives of seasoned agency executive leaders. Chapter 7 will connect the quantitative and qualitative findings, discuss strengths and limitations of this research, and generate policy recommendations.

# CHAPTER 2

# HOME HEALTH CARE WORKERS' HEALTH AND THEORETICAL MODELS OF OCCUPATIONAL STRESS

## LITERATURE REVIEW

### Home Health Care Workers and their Work-Related Experiences

Prior research has considered the work-related experiences of home health care workers from various vantage points. General and descriptive studies often define the home health care workforce. For example, Stone, Sutton & Bryant (2013) describe types of agencies, basic demography, job benefits and retention rates by merging data from the 2007 National Home Health Aide Survey (NHHAS) and the 2007 National Home and Hospice Care Survey (NHHCS). Another overview takes the NHHAS data further by describing employer and aide characteristics, aide motivation, initial training, continuing education, the work environment, pay rates, benefits, means tested public benefits participation, and injuries (Bercovitz et al., 2011). Using Current Population Survey data, a third notable overview notes historical trends over several decades with regard to labor force participation, pay, and benefits. The study also makes data recommendations calling for properly distinguishing home care workers from other health care workers (Yamada, 2002). Simpler overviews review basic themes regarding low pay, hazardous work conditions, and quality of care given to the elders (From et al., 2012).

Rewards and challenges have also been addressed in detail using qualitative data to assess the experience of "finding dignity in the dirty work" (Stacey 2005; Gabriel, 2004). Workers experienced pride and moral authority in their work and prized the autonomy afforded them in their day-to-day work plans. Caregiving satisfaction in home health care workers was

measured for differences among friends, family members or strangers to find that caregivers of all types were more satisfied if they felt more prepared for their role and if the quality of the relationship was high (Keitzman, Benjamin, & Matthias, 2008).

Subgroups take on importance in some of the literature about home health care work. For example, Ravovski & Price-Glynn (2012) used NHHAS data to assess "the risks and rewards of home care work and whether these are distributed equally among groups of workers by intersectional identity characteristics of gender, race and socio-economic status." Their findings examined satisfaction, discrimination and working conditions. For another example, a series of three journal articles by Butler addresses the issues related to older women engaging in the home care workforce. Butler used mixed methods (interviews, surveys) in eleven home health agencies in the state of Maine to make the case that since care needs are on the rise, women work longer and this poses unique challenges for worker health and safety (Butler, 2009). Older workers report staying in this work because of the need for money, they remain able bodied enough to carry out the work, and they are able to sympathize with their clients better because they can begin to relate to the issues of old age themselves. The recurrent theme was that the workers highly valued the autonomy the work schedule afforded them and they valued the companionship as a method for combating their own encroaching age-related loneliness. Low wages were problematic (Butler, Wardamasky & Brennan-Ing, 2012). In the most in-depth interviews, Butler used the constant comparison method of grounded theory and revealed richer themes including histories of low-wage employment, the presence of financial insecurity, and worker perceptions of the work as an "older person's job" (Butler, 2013).

Occupational Health of Home Health Care Workers

In recent years, several comprehensive summaries of home health care worker occupational health have been published. In 1999, an extensive analysis of occupational morbidity was undertaken using the West Virginia Workers' Compensation database to compare home health settings with nursing home- and hospital-based personnel. An overall incidence rate was 52 injuries per 1,000 workers per year. This rate was found to be similar to workers doing similar work in hospitals (46/1000), but lower than workers in similar roles in skilled nursing facilities (132/1000). Their injuries were mainly from overexertion, falls, motor vehicle accidents, being struck by an object, lacerations, burns or other (Meyer & Muntaner, 1999). A similar analysis of compensable injuries was undertaken using data from Washington State's Workers' Compensation Claims database in 2010. Injury patterns demonstrated a wider variety of non-fatal injuries to include bodily reactions, falls, upper extremity musculoskeletal injuries, over exertion, struck by an object, toxic exposure, vehicular collision, and lower extremity work-related musculoskeletal disorders (Howard & Adams 2010).

Frequently pointed out in the literature is the fact that the client's home is not a regulated workplace in the traditional sense. Brillhart, Kruse & Heard (2004) produced a useful analysis after interviewing over eighty participants. Results indicate that long lists of dangers in the community and in the home were generated, ranging from personal safety related to crime to poor sanitation and ventilation. In 2012, a study utilizing the NHHAS assessed the relationship between worker injury and organizational factors, agency characteristics and training/supervisory support. Final models demonstrated significant relationships between injury and lack of training, poor supervisor support, and turnover (McCaughey, et al., 2012).

Researchers analyzed lost time injury data from Oregon's Home Care Commission and, in addition, focus groups were incentivized and conducted employing structured discussions about perceived hazards in the workplace or barriers to safety in the work environment. Lost time injury data showed that back, knee, and shoulder injuries occur with moving clients. Qualitative work aligned with the injury data. In 2013, work-related injury rates were calculated from a stratified probability sample from the NHHAS. Home health aides who were white, who judged their workload to be inappropriate, and who worked more than one job were more likely to sustain a work-related injury. Interventions to improve safe patient handling and to address job satisfaction were recommended (Wipfli et al., 2012).

The most recent study to attempt a full characterization of the nature of home care work obtained data from 12 focus groups and 26 interviews in 15 health care agencies (Markkanen, et al., 2014). The study provides a comprehensive list of occupational health concerns along six major themes: Musculoskeletal disorders, violence and abuse, clients with difficult personalities, client's family or living situation, low wages and absent health insurance benefits, and the perception of society that aides are "taken for granted" as glorified babysitters/housekeepers and undervalued given the important work they engage in (i.e., administering medications, engaging clients milieu with cultural sensitivity, managing health care plans). Also reported as stressful were instances where aides became too attached to a client and first time visits. The study identified numerous hazards, including poor road conditions when traveling between clients, fall hazards, exposure to blood borne pathogens, exposure to infectious disease, potential for fire in the homes, poor indoor air quality, fumes from cleaning supplies, infestations of pests, dog bites, cat scratches, heavy lifting of the client, lacking pertinent information about a client's mental or physical condition, and interpersonal stress from feeling pressured to stay longer or take on tasks

outside the scope of what the agency allows. Interventions suggested by the study include work redesign and targeted training. Home health care workers would benefit from paid training that would enable them to evaluate the home environment and the client needs more extensively.

Quantifying hazardous occupational exposures and the resulting injuries and illnesses is challenging because there are a variety of pressures that cause under-reporting. It follows then, that achieving accurate data is even more difficult because the "worksite" is comprised of series of private residences for each home health care worker. An innovative survey was conducted by the University of Massachusetts, Lowell and the Massachusetts Department of Public Health in Boston. This survey captured home health care workers employed by both agencies (n=634) and by clients directly (n=615). Pre-clinical pain levels were especially concerning at 59%. These workers were in pain significant enough to take over the counter pain relievers, but not significant to seek medical attention. Since this measure is rarely addressed, little is known about how this percentage might compare with other workers. Injuries causing lost time in the previous year were sustained by 11%. Other exposures were verbal and physical aggression (19% and 7% respectively), exposure to needlesticks/sharps (2%), and indoor second hand cigarette smoke exposure (10%) (Quinn, et al., 2016).

Needlestick injuries and exposures to sharps are of heightened concern because the potential sequelae can be serious and even fatal. The nature and frequency of these exposures has been explored in the infection control literature (Beltrami et al., 2000; Backinger & Koustenis, 1994). Journals of nursing also contributed empirical work with specific findings that exposures were related to manipulating intravenous access ports (17%), improper disposal (15%), and errors during a blood draw (13.5%) (Haiduven & Ferrol, 2004). Chalupka, et al. (2008) published an insightful study on the surveillance of sharps injuries and blood exposures in health

care settings and methods for determining institution based causes and proposing innovative fixes. The study addressed the risks of HIV, HCV and HBV transmission and reported on differences in types of sharps encountered in the hospital versus home settings. And, while medical care costs related to these potential sequelae are delineated in this study as expected, the study added personal costs borne by personnel with sharps injuries. Anxiety, insomnia, and depression were common psychological symptoms. Nurses injured via sharps averaged one-half day of missed work. A detailed hierarchy of controls was suggested in addition to the identification of professionals who might be designated as an injury prevention team (Chalupka, Markkanen, Galligan, & Quinn, 2008). Studies from the field of occupational health focus on specific intervention approaches for home care workers focusing on differences in licensure (Lipscomb, et al., 2009), on unionized settings (Amuwo, Lipscomb, McPhaul, and Sokas, 2013), pathway models derived from key informants (Awumo, Lilpscomb, McPhaul & Sokas, 2013) and on techniques for identifying hazards during the home visits (Kriebel et al., 2014).

A similar body of empirical knowledge is being amassed to address musculoskeletal injuries due to poor ergonomic factors in home health care work environments. The incidence of both chronic and acute cases is very high and prevention has been elusive even in the face of serious legislative efforts to advance safe patient handling in all health care settings (Quinn et al., 2014; Quinn et al. 2016). Overextension injuries are common in home care settings due to improper workloads, postural strain, and unfeasible technological fixes (Galinsky, Waters & Malit, 2008). Some suggest an effective portable hoist or other equipment in addition to creating a “culture of ergonomics” (Parsons, Galinsky, & Waters, 2006; Beauvais & Frost 2014). Connections between psychological/psychosocial factors and physical factors are studied with rigor. Findings support that the risk of musculoskeletal complaints is related to not only physical

work conditions (i.e., standing in awkward postures), but also is related to perceived anxiety, supervisor cooperation, and having good information about the work environment (Brulin, et al., 1998).

Another group found that low supervisor support and the need for more equipment elevated odds of musculoskeletal injury (Arlinghuas, et al., 2013). Some have examined agency-level factors in addition to work performance measures by analyzing injury rates in addition to the distribution of tasks so that the proportions of troubling exposures across the home health client population could be categorized and related to the aides' assignments. Findings concluded that home health care companies could improve ergonomics and lower musculoskeletal injury rates by "developing a scheduling system that manages the exposure of aides to higher needs patients" (Czuba, Sommerich, & Lavender, 2012).

Workplace violence has garnered much attention in the press, but the reality of how it plays out in the lives of those involved is rarely followed closely. In a cross sectional study of workers' health outcomes, more than half the participants (n=1,214) reported experiencing either verbal aggression or workplace violence. This exposure was associated with higher stress levels, higher incidence of depressive symptoms, sleep problems and burnout (Hanson, et al. 2015). Home health care workers face serious health effects from assaults especially when working with patients with dementia or Alzheimer's disease (Galinsky et al., 2010). Long-term impact of workplace violence is underappreciated, but Galinsky et al. (2010) reviewed 21 studies in non-institutional care settings. Their findings indicate that alarming rates of home health care workers (92%) are exposed to client aggression or violence (Galinsky et al., 2010). Health effects can be direct due to an injury or more indirect for the way the injury instills a fear of return-to-work. Home care workers' were more likely to cut visits short, reducing the quality of patient care.

Questions about the effect of caregiver burden on the mental health of home health care workers are controversial. There is a large extant literature on caregiving burden (outside the realm of paid care work) and there is evidence that female home health care workers are at increased risk for depression (Madsen, et al., 2012) and among caregivers in rural areas, the added burden of isolation may increase depression (Butler et al., 2005). However, some have evidence that the burdensome nature of caregiving is an inflated concept, which does not acknowledge the meaning and importance found in caring for friends and family at that time in their life when they have become incapacitated (Amirkhanyan & Wolf, 2003). Few have examined what the double care burden means for those who care for people at work and at home.

Researchers have examined how work system risk factors influence permanent work disability among home health care workers (Dellve, Lagerstrom & Hagberg, 2003). Taking into account organizational factors like levels of supervision, ability to control the work, conflict resolution, physical demands and organizational distrust, a case control study was conducted. Factors associated with permanent work disability were poor ergonomics, time pressures, "lack of professional caring techniques," and violence. Others have studied the effectiveness of "employee-focused" leadership (Lee, 2012) and the reduction in workplace injury in home health care workers when supervisor support, employee engagement, and job satisfaction is high (McCaughey et al., 2014).

## Naming the Problems and Promoting the Voice of an Invisible Workforce

A select group of the papers not only described issues and problems association with home care workers, but were decidedly concerned with empowering workers by raising the level of awareness among the workers themselves. These articles focus on practical solutions

stemming directly from worker narratives (Ashley, Butler & Fishwick, 2010) or from retelling past worker struggles to obtain release from economic vulnerability through "visibility and support for their work" (Avery & McClusky 2013). Applying a "human-systems" approach, questionnaires and interviews were coded for task analysis, challenges in the work environment, and affective, cognitive, physical, and authority-related challenges. Findings suggest home modification, supporting isolated caregivers, and improvement in task redesign would be beneficial (Beer et al., 2014).

Other studies concerned with overcoming worker vulnerability focused on the ethics of troubling gift exchanges (Buch, 2014) and the benefits of unionizing the workforce (Gerrick, 2003). Others have examined suggestions for changing the work scheduling practices, improving wages, and benefits, discovered through workers' involvement in the study design (Nugent, 2008), and the consequences of consumer-directed care (Smith, 2007). Smith also reviewed Coke vs. Long Island Care at Home, discussing the story of Evelyn Coke's confronting of legal ramifications of the Fair Labor Standards Act (Smith, 2013). The ethics of client-directed care is addressed along with emerging ethical dilemmas of frontline workers (Stone & Yamada, 1998), especially regarding lack of authority and the sense of being caught in the middle of a triangle between the elder, their adult children and the agency.

These types of studies emphasize the marginalization of workers and engage in a grounded practical application. However, these researchers rarely, if ever, use stress process models to better understand empowerment processes or take into account how stress proliferation may be intervening to generate barriers to empowerment over time.

Occupational Stress

Working conditions all over the world have changed rapidly due to ongoing industrialization, globalization and the revolution in information technology. Traditionally, we think of physical hazards associated with work conditions, such as exposure to toxins, noise, dangerous heights, or poorly designed machinery. However, emerging from rapid modernization, psychosocial elements in the work environment are influencing work in ways that negatively affect well-being.

"Stress" is a popular concept conjuring images of frazzled executives, overworked blue collar workers, or energetic women trying to straddle competing roles. For serious examination, the term is quite vague, but it is an important concept because of the consequences to health that result from physiological changes in the body. The stressor stimulates arousal of the sympathetic nervous system that initiates a series of reactions resulting in the release of catecholamines, epinephrine, and norepinephrine. First described by Walter Cannon (Cannon, 1933) as the "fight or flight response," the release of these substances in the body can be perceived as a kind of "cranked up feeling" (Taylor, 2006). In addition, the hypothalamic-pituitary-adrenal (HPA) axis, which is implicated in the stress process, is defined as

> a tightly-linked, interdependent endocrine unit which, with the systemic sympathetic and adreno-medullary systems, comprises a major peripheral limb of the stress system, the main function of which is to maintain basal and stress-related homeostasis (McGraw Hill Co. Inc., (2010).

According to Hans Selye, this HPA axis is activated during three phases of experiencing a stressor: alarm, resistance, and exhaustion (Selye, 1937). When repeatedly activated, the HPA axis can become dysregulated. Changes in the cortisol response are observed as a direct physiological effect. The degree of physical changes in the autonomic, neuroendocrine or immune systems is called "stress reactivity," and this differs in individuals. The connection between these changes and illness has been demonstrated by increased vulnerability to upper

respiratory illness in those with higher cortisol responses and increased numbers of negative life events (McEwen, 1998; Cohen, 2002).

The workplace environment is a potential source of multiple stressors. Concerns about physical hazards, social conflict, deadlines, or the threat of unemployment are just a few possible sources. Common terms that attempt to describe "stress" related to the workplace include: job strain, work stress, and occupational stress. Overall, these terms are attempting to describe the risks or hazards of the psychosocial environment at work. In order to conceptualize these psychosocial hazards more concretely, a conceptual shift is required. The idea of stress as an individual self-reported phenomenon requires a more precise definition as "an exposure to psychosocial work stressors" (Gordon & Schnall, 2009). This shift is important because an individual coping mechanism may not be enough to overcome the burden these stressors place upon health. Introducing carefully constructed variables in sociological context improves understanding about how home health care agencies generate stressors in the lives of home health care workers through their day-to-day operations. Since minimizing stressors for home health care workers at the organizational level is an important goal of primary prevention, understanding the agency's role in relation to the home health care worker's role is crucial.

## Work-related Stress & Health through Occupational Health Paradigms

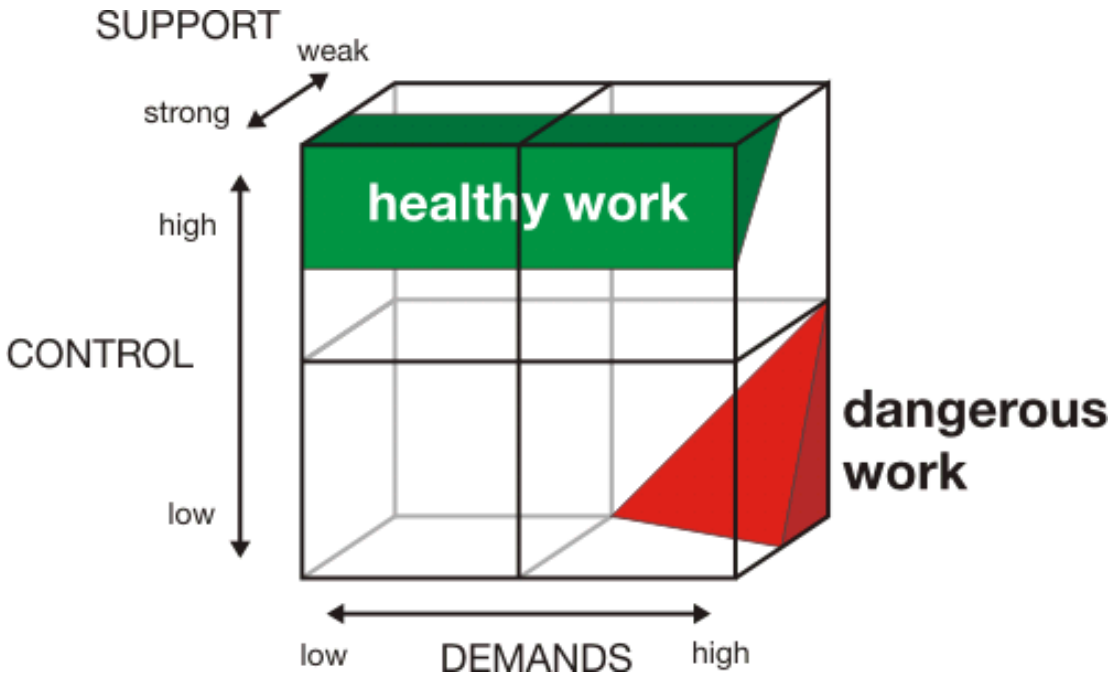
### *The Tale of Two Major Theories about Work Related Stressors*

For the last two decades, two major theorists have proposed models explaining the processes that connect psychological and social pressures with physical un-wellness. Karasek at al. (1981) have developed a model explaining that ill health can be an outcome of job strain. As

shown in Figure 2.1, when work tasks place excessive demand on the individual and this is combined with too little control over the work methods, work conditions are pressured and uncomfortable. Over time, this unhealthy pressure, it is theorized, causes increased cardiovascular disease and other poor health outcomes. (Karasek, Baker, Marxer, Ahlbom, & Theorell, 1981)

Figure 2.1 Karasek and Theorell's Model of Demand/Control with Support

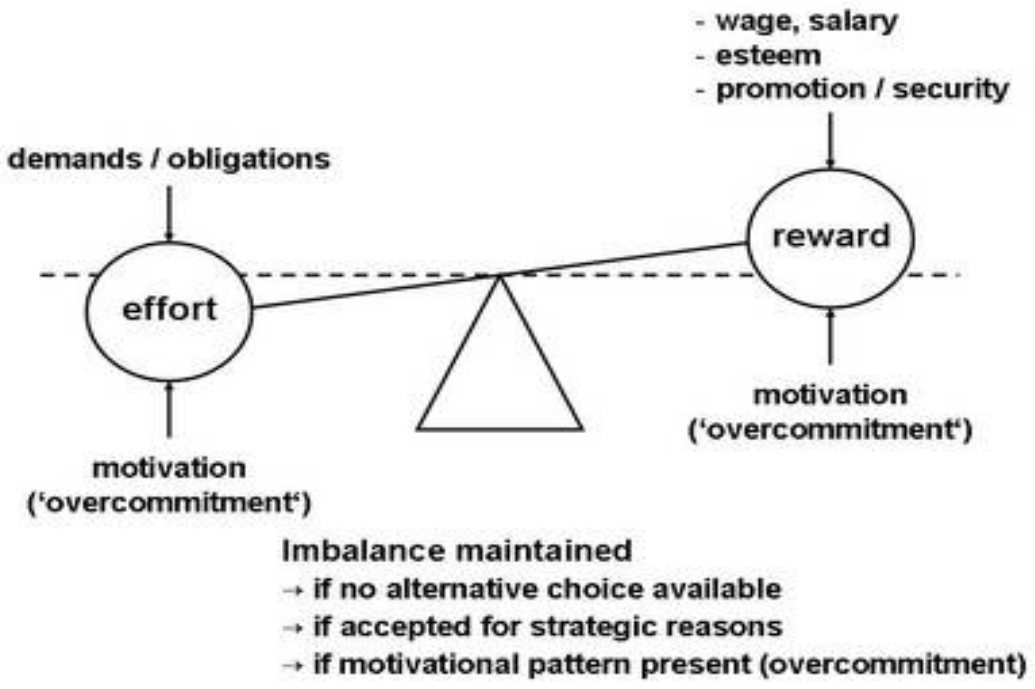
(diagram from Aborg, 2010)




In Siegrist's model, shown in Figure 2.2, poor health outcomes result from an imbalance between efforts at work and the rewards gained from doing the work. Based on both the extrinsic nature of the work itself and the intrinsic feelings and attitude toward work, Siegrist's theory is

based, in part, on theories of social reciprocity wherein work is considered a social contract through which various kinds of rewards are channeled (Siegrist, 2000, 2010).

Figure 2.2 Siegrist's Model Effort-Reward Imbalance




These two models are consistently applied by occupational health researchers, especially to determine the strength of association between the work conditions and cardiovascular disease (Siegrist, 2010). Associations in these epidemiological lines of research are often significant. Other research designs using measures of ambulatory blood pressure (Steptoe, Siegrist, Kirschbaum, & Marmot, 2004), heart rate variability (Vrijkotte, Doomen, & van Geus, 2000), or measures of cortisol levels have also demonstrated an association between effort-reward imbalance and differences in these biological patterns suggestive of disease (Hurwitz, Netterstrom, & Hansen, 2006; Bellingrath, Weigl, & Kudjelka, 2008).

Psychosocial stressors were found to increase risk of myocardial infarction with an odds ratio of 2.02 for men and 2.19 for women by combining data from both models. Generally speaking, men were more likely to suffer cardiovascular disease due to Karasek's job strain and women more likely to suffer if they experienced Siegrist's effort-reward imbalance in a pattern of over-commitment (Peter, Siegrist, Hallqvist, Reuterwall, Theorell, & Study Group, 2002).

By the year 2000, at least of decade of empirical work specifically related to the work place was underway. American researchers focused intently on psycho-social elements in the work environment that had been causally connected to disease states, especially cardio-vascular disease. As popular conceptualizations of "stress" became common buzzwords in the American vernacular, new definitions emerged, newly validated measures were constructed, and empirical work ensued.

There is ongoing improvement in the understanding of biological mechanisms involved in the stress response that may be causally linked to cardiovascular disease (Chandola, et al., 2008), but determination of the exact physiological mechanisms is still lacking. No precise causal physiological mechanism has been fully demonstrated, although both normal and dysregulated patterns have been explored (Shapiro, Jamner, Goldstein, & Delfino, 2001).

Karasek's model has received more attention than Siegrist's. The job strain model has been examined longitudinally. De Jong and colleagues have found support for the central assumption of the demand-control model. The following figures show the interaction between the variables that illustrate the model. Low decisional authority under both emotional demands and cognitive demands produced reduced job satisfaction, whereas with high decisional authority, under both emotional and mental demands, increased job satisfaction was observed. Low decisional authority, under both emotional and mental demands, produced significant

increases in psychosomatic complaints, whereas high decisional authority under both cognitive and emotional demands decreased psychosomatic complaints. Low decisional authority was also related to higher sickness absence rates, whereas higher decisional authority was related to reduced sickness absence (de Jonge, van Vegchel, Shimazu, Schaufeli, & Dormann, 2010).

At least 46 studies have linked cardiovascular disease with the job strain (Schnall, Schwartz, Landsbergis, Warren, & Pickering, 1998; Belkic, Schnall, & Baker, 2004). Recent research by Collins, Karasek and Costas (2005), utilizing Karasek's model, "assesses whether regulatory limitations of nervous system control (sympathetic and parasympathetic autonomic) could be one of the important pathways." In this study, Collins et al. measured heart rate variability taken from Holter monitor readings for healthy employed males. A continuous ECG reading was taken over 48 hours starting in the morning on a work day, through the work day and on through a resting day. For the psychological component, multiple types of job strain assessment according to an effective triangulation method (Theorell & Karasek, 1996) were employed so that validity could be enhanced. Their conclusion is succinctly and eloquently stated here:

This study supports the hypothesis that job strain is associated with ambulatory electrocardiograph indices of cardiovascular regulation in a pathogenic manner. The findings implicate autonomic deregulation under job strain conditions, providing a putatively powerful explanation of heart disease, as well a potential explanation of ‘‘work relatedness’’ for other stress-related chronic diseases (Collins, Karasek, & Costas, 2005).

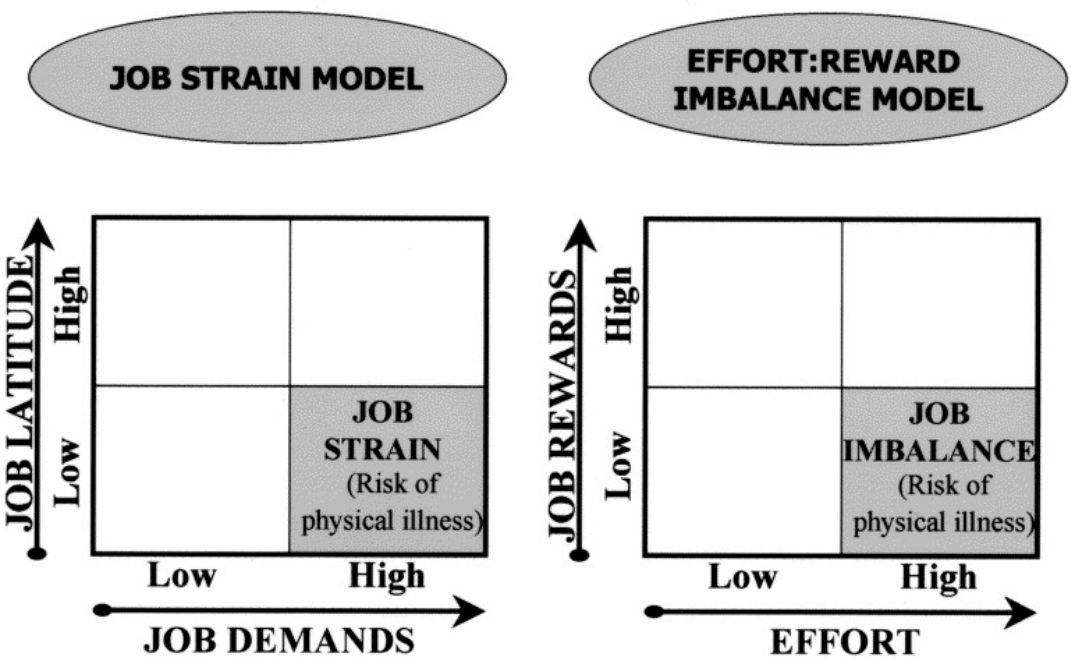
Researchers have assessed other conditions using these major theoretical models to examine associations between job strain and various factors including: depression (Dragano, Ying, Moebus, Jockel, Erbel, & Siegrist, 2008), musculoskeletal pain (Rugulies & Krause,

2008), anger (Smith, Roman, Dollard, Winefield, & Siegrist, 2005), burnout (Robinson, Clements, & Land, 2003), and psychological disorders (Bultmann, Kant, Kasl, Beurskens, & van den Brandt, 2002).

When specific trades or occupations delineate hazards in the unique work environs, certain professions are studied because this is able to demonstrate the phenomenon very clearly due to the specific nature of the constructs in question. At other times, specific occupations are studied because uniform sampling is more conveniently accessed. Specific occupations that have been studied include: nurses (Robinson, Clements, & Land, 2003), bus drivers (Aust, Peter, & Siegrist, 1997), senior executives and physicians (Ghosh, 2000), and blue collar workers (Siegrist & Klein, 1990).

Because each model seems to capture a different side of the coin of work-related stressors, it would make sense that a combination of both would facilitate the explanation of the relationship between work-related stress and health. Figure 2.3 juxtaposes both theories.

Figure 2.3 Job Strain (Karasek/Theorell) side-by-side with Job Imbalance (Siegrist) Model




Because these models have produced bodies of empirical evidence over time, when taken together they form a basis for identifying work-related stressors. Side by side, we observe that in both models, the lower right quadrant locates jobs associated with higher risk of physical illness. Jobs with low latitude and high demands (Karasek's Job Strain Model) correlate with the jobs with low rewards and high effort (Siegrist's Effort-Reward Imbalance Model). Conditions that foster these job characteristics are prevalent in many occupations. These models simultaneously explain higher risk of injury and/or illness on the job because home health care workers experience high physical and emotional demands with little say in how care plans are developed, while at the same time receiving very low pay and low appreciation for their role on the health care team.

*Models Explaining Occupational Stress and Health Disparities*

Within the vastness of the work-related stress literatures can be found a constant deepening and enriching of the research demonstrating disparate health (Schnall, Dobson and Landsbergis, 2016). Owing to the high prevalence of chronic disease associated with workplace stress and the hopefulness that conditions can be improved upon, researchers have attempted to trace potential explanatory mechanisms. Along the way, some have well noted that occupational health is experienced by workers disparately according to socially unjust distinctions (Baron et al. 2014; Nixon et al. 2011). Discrimination by gender, race, class and other factors accounts for increased disease burden of those who often already experience disadvantage due to intersectionality of these types of injustices.

There are a number of proposed models that chart different types of explanatory courses and carve out parts of the problem of work-related stress and health (Lipscomb et al., 2006; Muntaner et al. 2010; Benach et al. 2010. For example, Hester Lipscomb and colleagues make clear connections between surveillance and work-related injury, including psychosocial exposure. This model recognizes that the severity of the illness or injury, the accuracy and timeliness of diagnosis and treatment and the ability to alter work exposures are very important, but often ignored, mediating factors.

Muntaner et al. (2010) and Benach et al. (2010) propose both micro- and macro-level models of “employment relations and health inequalities.” These articles offer short explications of relationships between material inequalities, work conditions, and health outcomes being experienced in disparate fashion. Power relationships, government institutional structures, employment arrangements, and work conditions are modeled. In addition, other factors such as the health care system and social/family networks are included.

Drawing directly from Muntaner, a model proposed by Landsbergis et al. (2014) characterizes job stress as a component of poor occupational health, which is also seen in disparate proportions in the population. Taking into account the new economy (less manufacturing, more service jobs and more precarity) stress at work is posited as only part of the overall conception of occupational health and this work takes into account more than only physiological aspects of the stress response, but also considers psychological and behavioral mechanisms of work characteristics or conditions. This work stands as an example of using work-related stress paradigms embedded within a more comprehensive model that does not ignore socio-economic position and other institutional factors while also addressing work stress phenomenon. Work-related stressors don't happen in isolation from socially-constructed circumstances that develop and persist both in the workplace and community environments.

*Overlaps, Distinctions, and Future Blending*

Interdisciplinary work on occupational stress has been characterized by quantitative modeling and competing lines of research. Karasek developed the central model in occupational literatures on work-related stress with his demand/control. Around the same time, Siegrist offered the "effort-reward imbalance" theoretical model. Others developed more extensive models to clarify work-related stress comprehensively as well. Recalling that work and stress produce poor health effects, Smyth et al. (2013) cover the relationship between stress and disease through a structural and functional analysis. The work of Paul Landsbergis exemplifies how Karasek's research has been expanded toward more timely topics of "occupational health disparities." Because of the robust nature of these lines of inquiry, it is not unusual to see the

concepts developed by these models incorporated into stress process modeling studies as useful measures, creating interdisciplinary overlap.

But, occupational health researchers only sometimes create deeper explorations (Lax & Klein 2008). Generally, they tend to ignore historical inputs, temporal measures, and turning points in either workers' lives or that of business cycles. In addition, stress processes are also ignored, while "stressors" continue to be treated as exposures to be ameliorated. They are not characterized fully by their emergence, severity, organization, or proliferation. Cultural contexts both inside and outside of the workplace are frequently underappreciated in occupational health paradigms.

Contemporary public health researchers must grapple with questions of how to demonstrate the utility of increasingly complex statistical models that are less justifiable (possibly due to their hyper focus on job design) and more irrelevant in light of vibrant critiques paving new pathways via more formal analysis of social determinants or other avenues of inquiry. Wainwright & Calnan (2002; 2013) provide poignant critique of the traditional demand/control and effort/reward imbalance by delineating specific limitations. Chiefly, they find current theories too tightly connected to medical models that pathologize stressors as "exposures" at the expense of more complete models that might acknowledge the social construction of "stress" and consequent belief systems that develop as a result of applying these ideas in self-reinforcing workplace practices. Ultimately, these views threaten the classic research lines with sometimes lethal theoretical blows. These impulses influence this research by reinforcing the need for infusion of sociological theory with existing models.

Studying the impact of work on health should be deeply seated in a fuller theoretical frame, in order to develop the more pressing questions around the most harmful sources of strain.

What are the socially structured inner workings of institutions and are there upstream factors that have not been incorporated in popular work/stress models? How can theory about work-related stress include socio-economic segments, macro-economic changes, other institutional factors and social contexts to improve our understanding of how organizations or other social structures increase stressors (both in number and severity) and which, in turn, impact health? What connections between elements in the work environment, the home environment and the community/neighborhood level conditions might be posed? In short, occupational health research can be distinguished from sociological models in its sometimes profound lack of contextuality. Addressing health inequalities via inquiries into intersectionality requires more than lean epidemiological thought processes that tend to ignore meaningful social contexts and treat "stressors" like a physical exposure in a biomedical frame.

## Medical Sociology: Foundation for Research on Health Inequality

Connecting work and health requires an understanding of basic medical sociological theory to explain the disparate health experiences of different groups in light of social phenomenon. First, the overarching concepts of social epidemiology, help create research based on the centrality of social conditions as causal mechanisms for population-level health outcomes. For example, researchers might address questions regarding the social contexts and social determinants of health by characterizing health inequality in light of race, class, gender, education, and providing a sociological foundation for answering questions about how health inequalities emerge and persist (Link 2008; Ross & Mirowsky 2010; Anspach2010; Takeuchi, Walton & Leung 2010; Williams & Sternthal 2010; Dubowitz, Bates & Acevedo-Garcia 2010; Ross & Wu 1996).

An examination of health inequalities benefits from full consideration of measures of social capital and other similar measures, which came to social epidemiology through political science, in order to spur on understanding about the power and control that social structures exert over health (Kawachi et al., 1997; Kawachi 2010; Wickrama et al. 1997). Other examples might consist of studies establishing basic definitions of socioeconomic position, income inequality, discrimination, social integration, social networks, social capital and how all of these relate to disparate health outcomes (Berkman & Kawachi 2000). Layering these types of analyses within research designs produces rich and varied analyses.

In addition, current economic issues of the day can be taken up specifically as social phenomenon. An example of a "social determinant" might be the condition of working in "precarious employment" as a predictor of quality of health (Benach et al., 2014). This article attempts to establish links between historical, political, and economic factors influencing health through precarious employment. Forming models that do not ignore labor markets, welfare state policies, government influence, and countervailing political forces offer better promise of translation of emerging research findings into effective policy to improve population-level health.

While most better occupational health models are not ignoring social contexts, it may be that foundations of medical sociology are often not fully considered. Public health frameworks emphasizing epidemiologically styled inquiry often attempts to "control for" social processes but do not concentrate more focally on social conditions as "fundamental causes of health inequalities" (Link & Phelan 2010). Without research designs that reflect sociological connections between micro- and macro-level variables, the errant tendency to blame individuals for socially reproduced conditions will persist.

## Sociological Foundations of Stress Processes

Stress process models provide a central framework for this research. While medical doctors and psychologists persistently focus on the individual experience, sociologists strive to include the social structures and attempt to imagine potential buffers of poor health outcomes. In addition, stress is often characterized in terms of immediate exposure and subsequent abatement. The problem with this is that many health outcomes are the likely result of chronic stress processes embedded in interconnected social experiences (Pearlin, 1989). To understand the relationship between social status and health, Pearlin examines the sociological conditions that engender stress proliferation and/or the mediation of the course of events over time. His theory "rests on multiple conceptual components, each of them potentially related to the status placement of people in the hierarchical arrangements of the society" (2010, p. 208). When stress processes are related to both socio-economics and health, secondary stressors occur and may even give rise to clusters of cumulative adversity. These may be particularly more evident during transitions such at obtaining work or changing jobs. Work-related transitions have unique patterns that influence health long-term (Blair & Reid, 2008; Wickrama et al., 2012).

Thoits (2010) engaged in a clarifying, historical review of stress research depicting stress as damaging and unequally distributed in society by social class, marital status, ethnicity, and gender. Stress is further depicted as proliferating over the life course, and the author gives minority group status elevated significance because the stressors are compounded by discrimination. Policy solutions are envisioned at the individual, meso- and macro-levels. Thoits' discussion is sophisticated, contains an extensive and careful description of central contributors to current literature, and calls for more comprehensive measures of work-related stressors. Thoits focuses on five thematic areas within sociological literatures.

1. Chronic strains, persistent stressors, ongoing difficulties.
2. Regarding both physical and mental health disparity: As Pearlin has observed, “People’s standing in the stratified orders of social and economic class, gender, race, and ethnicity have the potential to shape the contexts of people’s lives, the stressors to which they are exposed, and the moderating resources they possess” (Pearlin 1999:398–99).
3. Discrimination stress is different and additional, even disproportionate.
4. Stress proliferates over the life course (Pearlin 2005) – ripples, spreads, multiply; intensify within one life, across generations via important relationships.
5. Social support, high mastery, self-esteem buffer effects of stressors

Aneshensel began to extend Pearlin’s work when the American Sociological Review published two substantive articles delineating the “competing conceptual and analytical models” of “social structure, stress and mental health (Aneshensel et al. 1991) and reviewing the “Epidemiology of Social Stress” (Turner et al. 1995). Aneshensel et al. argue that socio-medical models that attempt to explain stress as an independent variable for specific mental health diagnoses are flawed because stress would be better viewed as an intervening variable and that specific diagnoses are not a proxy for all possible stress-related outcomes. Her findings underscored the idea that stressors function as mediators.

Just a few years later, Turner, Wheaton and Lloyd (1995) explore the epidemiology of stress, calling into questions the inadequacy of life event measures. Because “unmeasured differences in stress exposure across social statuses parade within research findings as vulnerability differences” (Turner et al. 1995, p. 106), the authors assessed the cumulative burden of stress (“operant burden”) to account for the relationship between social status and mental health. Gender differences demonstrate that current stressors are impactful (Quick & Moen 1998; Reiker, Bird, & Lang, 2010). Chronic stressors are conceptualized as contributors to social class differences in mental health. Turner et al. demonstrate clear connections between systematic stressors and mental health outcomes and contributed to reorienting the field to examine social locations found in status, roles, and social organization as producers of stress.

Levels of exposure alone could not explain variation in stress processes if these were focused solely on individual vulnerabilities.

Another paper demonstrating stress processes especially focused on the "systematic assessment of proliferating stressors" captured data from AIDS caregivers (Pearlin, Aneshensel, & LeBlanc 1997). Using a multi-wave panel study, the authors examined how primary and secondary stressors created pathways to depression measures controlling for background contexts. While the study raised new questions, it also demonstrated a "clear structural basis whereby primary stressors come to disrupt activities and relationships in external domains" (Pearlin, Aneshensel, & LeBlanc 1997, p. 234).

These foundational articles begin to describe, in brief, some of the merits of the sociological stress process model. Other sociologists have made significant contributions to the study of stress as well.

*Tausig and Fenwick: Work and Mental Health in Social Context*

In 2011**,** Tausig and Fenwick published a book that summarized their research program that took place over 20 years and formally introduced a model of occupational stress in a social context. Rather than solely focusing on individual processes and behaviors, their model incorporated the macro-structural elements of political economy and then matured as they sought to construct a comprehensive sociological explanation for stressful job conditions (Tausig and Fenwick 2011, p. v). They have aimed to "develop new ways to think about the origins of health disparities" in their sociological framework.

They provide contextual analysis of the various contributions and limitations of the Demand-Control theory and then offer in-depth treatment of organizational determinants,

institutional factors, socioeconomic position in segmented labor markets with an emphasis on post-Fordist work arrangements, and the deleterious effects of macro-economic change.

With linkages explicated, Tausig and Fenwick move to explain their sociological model of job stress (Tausig and Fenwick 2011, p. 165) that characterizes job stress within two main contexts: 1.) social determinants of health and 2.) Stress process models. Utility of the model is based on the premise that job stress is connected to heath disparities via systemically driven conditions with both proximal and distal sources of strain.

Tausig and Fenwick's model tie their perspectives together by leaning on "fundamental causes of disease explanation" in combination with "the sociological study of stress process." In their study of the social determinants of health, they seek to also apply the study of the labor market process (Tausig and Fenwick 2011, p. 3). Tausig and Fenwick see worker health and well-being as the direct result of job conditions, which are influenced by the labor market and the organizational structure of the workplace. Indeed, extant literature has emphasized these relationships; however, Tausig and Fenwick further define antecedents to include: structures of social inequality, developments in the macro-economy and the social institutional environment. Each of these has a hand in determining the labor market and the way organizations are structured (Tausig and Fenwick 2011, p.5).

Their model theorizes that these work structures result from both new forms of work arrangements and work organization, which is also affected by the specific occupation and the specific industry. Individual worker characteristics are inputs in the model as well. All of these factors are influenced by the state, the macro-economy and institutional norms. Essentially, what Tausig and Fenwick are proposing is that both the fundamental cause theory AND stress

processes are embedded in social characteristics that induce poor health, although there is potential for mediation by both social and personal resources.

Work, in their model, is viewed as a part of the social environment affected heavily by race, SES/Class, gender, and citizenship status and is a part of a constellation of domains from which stressors emerge. And, in this analysis, work can be seen as a function of the macro-economy in a bi-directional relationship with institutional norms acting upon the labor market that influences organizations and ultimately the job conditions experienced by the workers. These job conditions contain multiple exposures placing worker health at risk with exposure to stress being but one of them.

*Blending Theoretical Frames*

The work of Tausig and Fenwick and the work of Leonard Pearlin form two cornerstones. They overlap in that they both are deeply informed by social contexts. Tausig and Fenwick have augmented stress models by suggesting a model more inclusive of distal influences and social contexts (Tausig and Fenwick 2011, p. 180). Their model provides for an enhanced view of the way health status varies systematically by social status, race, and gender (Link & Phelan 1995).

With significant contribution to our understanding of the way stress is organized and proliferates already well established (Aneshensel et al. 1995), Pearlin et al. were strengthening connections between stress processes and the life course paradigm to explain the “long-range toll on health” that stress proliferation may generate. By thinking through the circumstances of trauma, out-of-sequence transitions, and role disruption, Pearlin et al. show how conceptual

perspectives can enhance our understanding of health inequalities rooted in socially structured norms (Pearlin, Schieman, Fazio, & Meersman 2005).

## Occupational Stress of Home Health Care Workers

This literature review extracted only a few papers exploring the work-related stress of home health care workers. Informal eldercare and the specific effect this has on the caregiver's work life has been considered more often (Trukeschitz et al., 2013). Sometimes unemployed family members are called upon to be primary caregivers of elderly relatives and Dellasega (1990) found that unemployed caregivers felt more stressed by the "expectations and dependency of their care recipient." Others focus on the entire family and find that stress processes may pose "adverse psychological outcomes" for all children of an elder needing care and not only the son or daughter doing the main caregiving (Amirkhanyan & Wolf, 2006).

Three main papers focus solely on jobs stress and job satisfaction among all types of long-term care facilities (not just in private homes). Denton (2002) studied job-related stress and job satisfaction during health care restructuring and found that "organizational change, budget cuts, heavier workloads, job insecurity, loss of organizational support, loss of peer support, and loss of time to provide emotional laboring" were associated with" increased job related stress and decreased levels of job satisfaction." Measuring personal stressor and job-related stressors, individual-level predictors of job satisfaction were entered in a hierarchical multiple linear regression model and twelve significant predictors explained 51% of the model variation. Ethnicity, personal health changes, pressures to attend, inadequate training, lack of permanent assignment, unfair compensation, poor benefits package, and high frequencies of negative interactions decreased job satisfaction among home health care workers (Ejaz, et al., 2008).

Delp, Wallace, Geiger-Brown & Muntaner (2010) applied the Karasek/Theorell model more strictly to connect factors related to job strain with overall job satisfaction in direct care workers. Physical demands were heavily operationalized as "demand," and remained among the most significant factors in the multivariate logistic regression models. Social support was a factor associated with job satisfaction and was also highly significant. In a different study, home care workers' job strain increased significantly when providing more than personal care for elders with high medical complexity (Moorman & Macdonald, 2012). Many of the studies attempting to measure work-related stress either do not stay close to any particular theoretical tradition or they do not construct measures with enough attention to non-physical dimensions of the work.

## Strengths and Limitations of the Literature

Literatures based in the field of public health/occupational health are often epidemiological in nature, focusing on specific health outcomes. Much of this work is well-funded and creates an empirical foundation along with an appropriate call for alarm because so much injury and insult could be prevented. However, the literature lacks coherence overall because it is especially weak in connecting socially structured phenomenon to poor work conditions. There is a tendency to situate thought at the worker level within the workplace and not consider broader social, political and cultural complexity. Also, on a slightly different note, there remains the urgent need to connect epidemiological knowledge to workable adjustments in the private homes of clients to create more effective prevention.

Occupational health research of very basic design should continue to lay more current knowledge about incidence and prevalence of occupational injuries and illnesses. However, measuring the connections between work and health as moderated by economic and social

structures must not be ignored. For example, levels of precarity in the work arrangements of home health care workers may promote poor health. Models should not ignore relevant socioeconomic variables around job conditions.

The sociological tradition draws upon a number of key theorists in the tradition of Pearlin, and Fenwick & Tausig. Pearlin's sociological processes of stress proliferation over time underscores the temporal nature of the way social forces act upon individuals' lives and influence health (Wheaton, 2010). The connections that Fenwick & Tausig provide between macro- and micro-level influences on mental well-being provide rationale for detailed examination of agency-level "behaviors."

Similarly, public health models described by Muntaner also buttress connections between employment conditions, such as labor force participation and precarious employment, work organization, health systems and health outcomes – all of which are actively operating in the home health care worker milieu. These strands of psychology, sociology and public health provide rationale for including variables in quantitative modeling and imperatives for ongoing qualitative inquiry. As Pearlin noted, important connections are being made in "overlapping and of mutual relevance" subspecialties in sociological theory (2010, p. 213). An exploration of this potential synergy is warranted because each of these three disciplines/fields provides clear ties between psychosocial stressors and social structures and then ultimately between stress processes and health.

When studying work-related stressors, in the case of home health care workers or for any workers, new questions form around specific life events related to job changes, historical circumstances related to labor force participation, or economic trends. All of the questions are further elucidated in light of classic variables, such as age, gender, class, ethnicity, and

geographical location. Additional advances may come from developing new variables around work/family interactions, noticing work-life disruptions, and thinking through how work-related transitions impact stress proliferation. More elaboration on work and health histories may enhance current methods in data collection as researchers seek out what may be "making or breaking" the trajectory toward either good or bad health.

## THE CONCEPTUAL MODEL

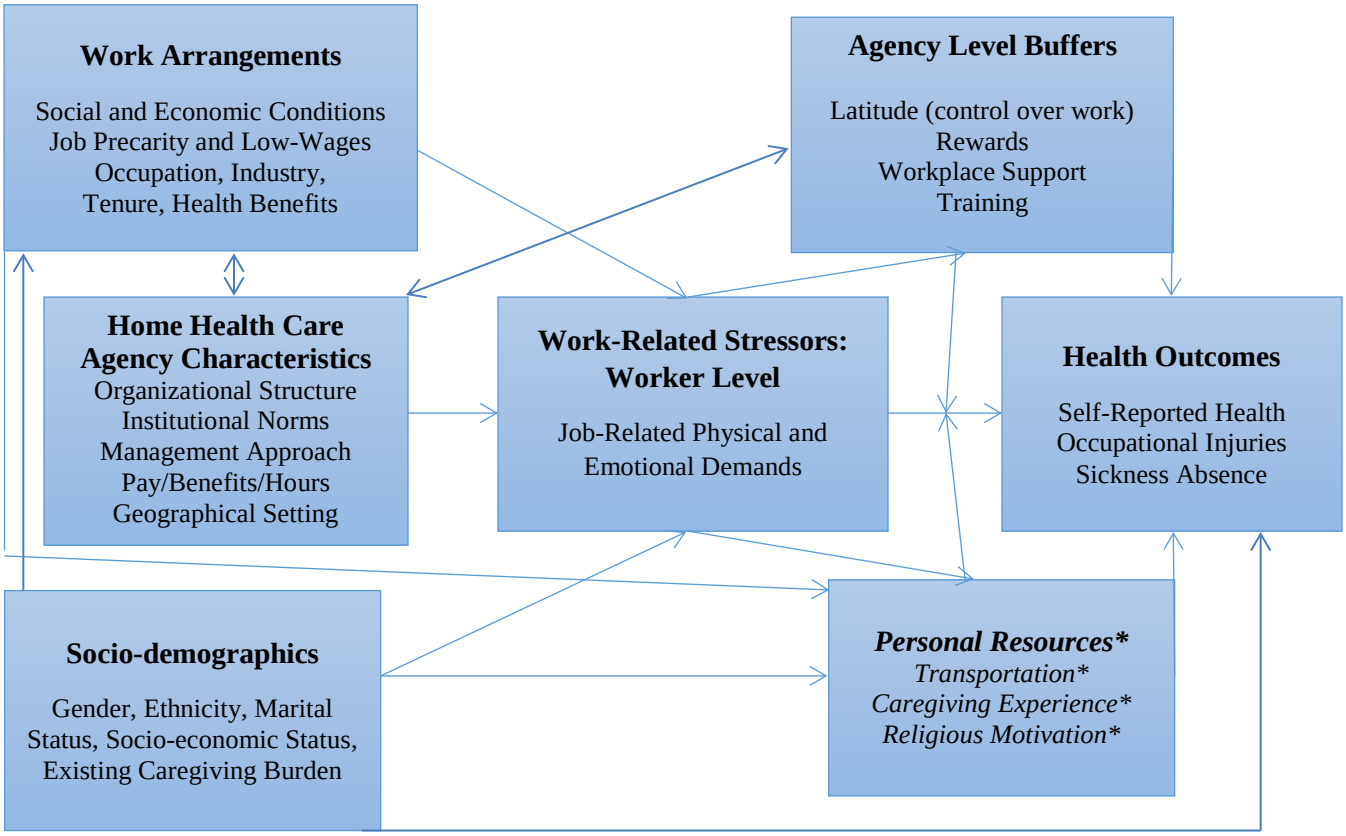
Home health care work is the fastest growing occupation of all low-wage occupations in the United States. While some have considered the long-term impact of caregiving within family (Aneshensel et al., 1995), to date, there is very little coherent research examining the effects of the work-related stress of home health care workers in light of a wider variety of social, economic and institutional factors. This study draws from psychological, sociological and public health theoretical frames. Calls for new research about work-related stressors abound (Thoits 2010; Landsbergis et al. 2000). Most of the obvious extensions require more longitudinal work, more detailed analysis of what constitutes a stressor, and work with new populations, such as low-wage workers or women (Moen 2011). Stress models in the theoretical tradition of Karasek & Theorell, and Siegrist provide rich variables for analytical plans, especially because of their robust findings connecting the demand/control/support phenomenon to poor health outcomes.

Examining the quality of work life for workers who are paid to care for the elderly in home settings requires an analysis of the social, economic, and political contexts. Understanding how mechanisms give rise to low wages, low-quality work arrangements, and result in poor occupational health outcomes is imperative especially because "individual-, meso-, and macro-level changes have potential to lessen stress exposure, foster empowerment, and enhance social

integration," (Thoits 2010, p. 548). Studying worker experiences at both the individual and agency level has the potential to generate more meaningful policy.

To create a model for this research focusing on health outcomes for home health care workers, I have translated concepts represented in existing literatures from the three strands: occupational health, sociological theory, and stress process modeling.

Figure 2.4 Conceptual Research Design




*indicates variables that emerged during qualitative phase. All other variables were operationalized and examined in both the quantitative and qualitative phases of the study.

In Figure 2.4, I provide the conceptual model applied for both the quantitative and qualitative phases of this research (Muntaner et al., 2010; Avison, Aneshensel, Schieman, Wheaton 2010; Fenwick & Tausig 2011). Italicized words with an asterisk indicate that those parts of the conceptual model that were uniquely expressed in the qualitative interviews. The model, once again, includes the theoretically informed categories, restated here:

1. Work-Related Stressors: Worker Level
2. Socio-demographics
3. Agency-Level Buffers: Training and Support
4. Work Arrangements
5. Home Health Care Agency Characteristics

The model visually demonstrates that while work-related stressors are related to specific health outcomes, a web of interrelated variables interact, directly and indirectly. Some are quite obvious and linear, such as the relationship between the institutional norms of the home health care agency and work-related job demands. Others follow more complex pathways. For example, home health care agency characteristics like "management approach" affect agency-level buffers like the availability of quality training. Less directly, this buffer alters the effects of work-related stressors on health outcomes. Some bi-directionality is also theorized. For example, an agency-level characteristic, such as a commitment to fully equipping aides with supplies for their work, may initially create an agency-level buffer that reduces job strain, but the positive outcome may reinforce agency norms of respect for home health aides' work in other ways, creating a bi-directional influence on agency-level characteristics.

## HYPOTHESES

The conceptual model suggests an expansive view of potential factors, but I am not able to fully test all aspects of the model given data limitations. However, the analysis does examine

the extent to which the relationship between exposure to stressors and health outcomes is influenced by work demands, worker control over how work is conducted, and agency-level factors, controlling for socio-demographic characteristics.

Occupational health has been defined by the World Health Organization as "the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people, and people to their jobs (ILO/WHO 1950)." This definition differs significantly from general definitions of health, which tend to focus less on work. While there are various ways to assess worker's health, this research examined a global measure of self-rated health and two measures of occupational health: days missing work and number of injuries. For this research, I hypothesized that both regression modeling and qualitative methodology will demonstrate that:

1. Socio-demographic factors are significantly associated with self-rated health and occupational health. Specifically, health outcomes are significantly worse for aides who:

    a. are older
    b. are married or partnered
    c. are not white
    d. have lower education levels
    e. have lower income levels.

2. Work-related stressors at the worker level are associated with worseself-rated health and occupational health. Specifically, health outcomes are significantly worse for aids with:

    a. high work demands
    b. low work control
    c. effort-reward imbalance
    d. racial discrimination on the job
    e. additional care burdens when not at work.

3. Agency level “stress buffers” are associated with worse self-rated health and occupational health outcomes and will be mediate the relationship between work-related stressors at the worker level and self-rated health/occupational health outcomes

    a. Types of training that include a mixture of classroom instruction and hands on material are associated better self-rated health and better occupational health outcomes.
    b. Workplace support from either the agency in general or the supervisor more directly reduces occupational health.
    c. The relationship between the worker’s work-related stressors and the health outcomes will be explained in part by the agency-level stress buffers.

4. Work arrangements (i.e., pay rates, health benefits) are associated with better self-rated health, while at the same time are associated with diminished occupational health.

    a. Aides with higher pay, longer tenure, health benefits and generally good benefits have better self-rated health.
    b. Due to increased reporting of occupational injury (and not that their actual work-related injury rates are higher), I expect aides with higher pay, longer tenure, health benefits and generally good benefits will have lower scores on occupational health measures relative to those who do not have higher pay and benefits. I expect better benefits encourages aides to report work-related health problems more frequently and utilize benefits for recuperation. I expect aides with lower pay and no benefits may be more likely to under-report occupational illness or injury and therefore have lower injury rates in the data, but that these rates are misleading and do not indicate that they have better occupational health.

5. Agency characteristics will be associated with self-rated health and occupational health, with the direction of the relationship varying across the following variables:

    a. rural/urban setting
    b. for profit vs. non-profit
    c. hospice vs. non-hospice
    d. chain affiliation vs. no chain affiliation

In addition, because qualitative work is exploratory in nature, I hypothesized that new or unique information might emerge about less well-known or less-recognized types of stressors home health aides experience and how those inter-relate with concepts in the model framework.

# CHAPTER 3

# STUDYING HOME HEALTH AIDES' STRESS WITH MIXED METHODS

Occupational stress is a modifiable health risk because redesigning work environments and changing organizational culture can control exposure work-related stress and reduce the associated health threats. Little is known about the work-related stressors of home health care workers. Completed in two phases, this research design examined mechanisms producing work-related stressors in the home health care workforce nationally and in New York State. This research asks how work-related stressors affect the self-rated health and occupational health of home health aides. Expanding upon extant literature on work-related stressors by drawing on sociological literature, this research aims to analyze the mediating relationships between exposure to stressors and health outcomes, as may be found in the nature of the work itself, agency-level factors, and socio-demographic characteristics. In Phase I, I explored potential mediators in stages with statistical modeling. Models added sets of variables corresponding to the conceptual model described in Figure 2.4.

1. Work-Related Stressors: Worker Level
2. Socio-demographics
3. Agency-Level Buffers: Training and Support
4. Work Arrangements
5. Agency Characteristics

In phase two, I engaged in observation of the home health agencies and also conducted 45 interviews to analyze the experiences of home health care workers and gain agency leaders perspectives to further understand the influence of these mediating factors and their relationship to the home health aides' health. Study constructs related to occupational stressors were assessed in both the quantitative and the qualitative phases of the study (Creswell, 2009; Tashakorri and Teddlie, 1998).

# METHODS

## Phase 1: Foundational Quantitative Work

Respondents participating in the CDC's National Home Health Aide Survey have described workplace conditions well, but to date no studies have fully focused on those measures related to work-related stressors collected by the survey. This research examined how a specific set of measures impact both general health and occupational health. Variables included socio-demographics, agency characteristics, work conditions, occupational health risks, and job quality.

### *Data*

Data for the analysis was drawn from the National Home Health Aide Survey developed by the United States Centers for Disease Control and Prevention and managed by the Division of Health Care Statistics. The survey design was based on a two-stage probability sample design, first sampling agencies (n= 1,545) and then a selection of random home health care workers employed by them, averaging 4.3 home health care workers per agency. Surveys (n= 3,377) were conducted between September 2007 and April 2008. From a nationally representative agency-level sample, a sample of home health aides was drawn and interviewed by telephone for a $30 incentive. Twelve topical areas of the work conditions were covered, such as agency characteristics, aide characteristics, motivation, and training.

Researchers have described the NHHAS survey (Sondik, Madans, & Sisk, 2010), but few have examined the measures related to work-related stressors collected by the survey. The NHHAS has collected a significant number of pertinent items to conduct the inquiry based on Karasek/Theorell models having included items measuring the theory's central constructs of job

demands, latitude, and workplace support. Also, constructs related to both the Siegrist model and Fenwick & Tausig models were measured with items inquiring about wages, benefits, and job stability. The NHHAS is a useful resource that has over 75 relevant questions related to job stability, personal economic circumstances, supervisor support, agency characteristics, recruitment methods, training, job resources, family life, patient relations, work environment, discrimination at work, and motives for working as a home health aide (Sondik, Madans, & Sisk, 2010). Relatively few have developed studies integrating these concepts with work-related stress models (Schieman 2013; Kalleberg & Marsden 2013; van de Ven et al., 2008).

This data set is underutilized (Baron, conversation June 3, 2015) and offered an ideal opportunity to construct measures at the individual level and agency-level. Because these numerous constructs may have new theoretical relevance to work-related stress in more service-oriented economies, I designed a study weaving both the Karasek/Theorell model and Siegrist's model with variables reflecting current economic and occupational conditions (Tausig and Fenwick, 2011; Huws, 2014).

*Occupational Health Risks*

While others have found relationships between high injury rates and poor training and lack of supervisory support (McCaughey et al., 2012), there is a lack of information derived from the NHHAS regarding the role of work-related stress exposure plays with regard to occupational health outcomes. Occupational health risks were inquired about with several items in the NHHAS questionnaire, including details about adequacy of health and safety training. Participants responded to questions that included frequency of injury, number of days missed due to injuries, injuries resulting from slips, trips, falls, needle sticks, animal or insect bites, burns,

workplace violence, lifting and other patient handling. Since the NHHAS provides variables for descriptive characterization of occupational health and safety of home health aides, descriptive tabling of data set a backdrop for the contextualization of the dependent variables related to occupational stress.

*Measures*

Five regression models featured three dependent variables (self-rated health, and two measures of occupational health) in light of agency characteristics, occupational risks, elements in the social environment including management style and socio-demographic controls. Regression modeling demonstrated significant predictors of both self-rated health and occupational health.

*Dependent Variables*

*Self-rated Health*

Health is defined by a self-rated scale. Participants were asked, “In generally, how would you say your health is?” Respondent choices were: 1= excellent, 2= very good, 3= good and 4= fair or 5= poor. Answers were recorded on a five-point scale (excellent, very good, good, fair, poor). For this analysis, the variable was collapsed to four categories by combining “fair” and “poor.” The variable was then reverse coded.

*Occupational Health: Days Missing Work*

The first occupational health measure is defined as the number of work days missed because of work-related injuries in the preceding 12 months, expressed in three categories (zero days, 1-5 days or 6 or more days). Zero days missing work was the reference group.

*Occupational Health: Number of Injuries*

The second occupational health measure records the number of times an individual was injured at work during the past 12 months (or since starting their job if it was less than 12 months).

*Independent variables*

Independent variables were entered in a multinomial regression model for each dependent variable with five sets of independent variables added sequentially. These variables were based on the following thematic constructs according to the conceptual model:

1. Work-Related Stressors: Worker Level
2. Socio-demographics
3. Agency-Level Buffers: Training and Support
4. Work Arrangements
5. Home Health Care Agency Characteristics

In addition to the conceptual model, based on extant theory, the construction of variables for this study relied upon methodological literature specifically recommended by Paul Landsbergis (conversation, 2015) to include methods chapters on occupational health psychology (Landsbergis et al, 2011), systematic reviews (Landsbergis, et al., 2000) and meta-analysis that shed light on scale validation (Landsbergis, Dobson, Koutsouras & Schnall, 2013), alternative formulations of job strain (Landsbergis et al., 1994), European comparisons of effort-reward

imbalance measurement (Siegrist et al., 2004), and review of the Copenhagen Psychosocial Questionnaire (Kristensen, Hannerz, Hogh & Borg, 2005).

*Model 1 includes and work-related stressors at the worker level.*

1. *Work-related stressors: worker level*

    a. *Job strain*

According to Karasek & Theorell, job strain is comprised of three workplace constructs: demand, control and support. Workplace demand refers to the both the difficulty and the pace of work assigned, which is referred to as psycho-social demand. Workplace control refers to the amount of latitude or decision making power that the employee possesses to carry out the assigned work. Workplace support is not an equivalent term for generic social support. Workplace support implies that the employee has been given adequate information or the appropriate equipment to accomplish assigned work. Ultimately, these three classic constructs – demand, control and support were measured per Landsbergis et al. (1994) to isolate the home health aides experiencing higher levels of job strain. Twenty-five items in the NHHAS were used to construct demand / control / support variables. First demand and control variables were constructed. Support variables appear in a later block of variables. Details about how these first two scales were constructed appear in Appendix A.

    b. *Effort-reward imbalance*

According to Siegrist, an effort-reward imbalance produces an unhealthy level of work-related stress. In this study, the effort-reward imbalance was measured by isolating those with

low job satisfaction and low wages because the presence these in combination indicates an effort-reward imbalance (Siegrist 2000; 2010).

Effort Reward Imbalance combines four items scored on a likert scale to create a score ranging between 4 and 16, capturing the idea that "this job is just not worth it." Higher scores indicate dissatisfaction with the current overall situation and more specifically are connected to a negative response indicating regretting taking their current job, regretting entering the field in the first place, and how much they avoid recommending that family or friends take a job as a home health aide. Details about how this scale was constructed appear in Appendix A.

*c. Other individual measures*

Additional measures of work-related stress included conditions related to individual home health aide work experiences that carry additional stressors not commonly addressed in Karasek or Siegrist models, but that other literature addresses and could be measured well in the NHHAS.

i. Experience of discrimination at work

ii. Greater than average self-reported existing care burdens in combination with the paid care work, often thought by some to generate a double burden, though negative health effects are not always found (Haukenes, et al. 2012).

*Discrimination*

Current workplace discrimination was measured by a yes/no question that asked, "In your current job, have you ever been discriminated against because of race/ethnicity?

*Care burden*

This variable describes additional caregiver burdens outside of work by combining two dichotomized items from the survey indicating additional caregiver burdens outside of work. Respondents were asked, “Are you caring for family/friend with a disability or health problem?” and “Did you miss time from work in past month to care for family/friend?”

*Model 2 adds socio-demographics*

2. *Socio-demographics*

Demographic control measures include some endogenous and some exogenous variables. Included were variables for the constructs of age, gender, ethnicity, education, marital status, income levels, and poverty status.

*Gender*

Gender is reported as male or female (1 = male, 0 = female).

*Age*

Age is reported in years according decades/categories:20-29, 30-39, 40-49, 50-59, and 60 and over.

*Race/Ethnicity*

Ethnicity was coded in three categories: white, black, and other. The reference category was white. Since Hispanic people occur in all three categories, it was reported as a separate variable (1 = Hispanic).

*Education level*

Education level was captured with 17 potential responses in the survey instrument. These were reduced to three categories: those who did not complete high school or the equivalent, those who did, and those who had more education than high school, including technical schools. The reference category was those who completed high school.

*Income*

Respondents indicated their income according to $10,000 increments indicating total household income in the last year using 9 categories. For this study, income categories were given in increments of $10,000. These categories were collapsed to three: less than $20,000, between $20,000 and $39,999, and over $40,000. The reference group was those making over $40,000 per year.

*Marital status*

Marital status was captured in six categories: married, living with partner, separated, divorced, widowed, or never married. Never married was the reference group.

*Poverty status proxy*

Respondents were asked if they were using a government program for medical needs and responses were recorded dichotomously (1 = yes).

*Model 3 adds variables related to buffering work-related stress by providing job-related resources. These comprise the "support" found in the demand/control/support model.*

*3. Agency-Level Buffers: Training and Support*

The presence of job-level support can take many forms, such as appropriate training, attention to skilled supervision, and general agency-level support. Characteristics of training programs (onsite or offsite, for example) include the types of training offered, the quality of supervisory support leading to competence in the workplace and the general levels of respect and appreciation that home health aides experienced were integrated into the second statistical model. Most stress models recognize that certain conditions buffer the effects of stressors. Measures available in the NHHAS to measure workplace-level support were particularly effective constructs. Measures to describe training, supervisor support, and agency-level support were available. For more details, see Appendix A.

*Training*

A training variable was created taking into account both training location and the type of training methods used. Six categories were developed to represent training conditions experienced by home health aides. Training was provided in two locations: either on-site or offsite through another training entity. The types of training included training conducted were

accomplished by mostly observing or doing hands-on work with patients, mostly classroom study, or an even split between hands-on and classroom study. Taken together, the training variable for the study included six categories combining these items from the survey indicating training location and training type, and including a reference group who reported that they have received no training.

*Workplace support/supervisor support*

This variable combines five items from the survey to create an overall score ranging from 4 - 20. The first variable is dichotomous (1 = enjoys working with supervisor) and the score is weighted by a factor of two because it is a more global measure. The four remaining items were scored on a four-point likert scale. Points in the score were also higher when the aide endorsed that the supervisor provided clear instructions, was supportive of career progress, provided positive feedback, and listened when worried about a patient's care.

*Workplace support /agency-level*

This variable combines five survey items to create a score. General indications of appreciation and respect are weighted by a factor of two. The score includes one point for each of three types of problems aides endorsed as making their job difficult or making them dislike their job. These problems were communicating with the agency in general, communicating with specific agency staffs, and the preferential treatment by the agency management related to staffing issues or documenting paperwork.

*Model 4 incorporates measures associated with work arrangements into the regression model.*

1. *Work arrangements*

Home health care workers do not always have union contracts that demand a living wage, benefits, sick leave and paid vacation. In fact, home health workers may or may not have the benefit of any of these conditions of employment. Frequent employment change due to layoffs and seasonal work, is very common in both casual work and more permanent low-wage jobs. The concept of "precarity" is explored by proxy using three measures related to work arrangements: job tenure, and two measures related to pay and benefits.

*Tenure*

Tenure was measured in two ways. For the first, the length of time working as a home health aide in any agency or employment arrangement was captured in detail, including seven categories ranging from less than six months to over twenty years. The reference group was those who worked six months or less.

Tenure was also measured by the number of months working at the current agency.

*Good pay*

Two survey questions about wages are summed to create a score indicating that the job was good paying (1 = yes). One variable simply asks if the job has good pay and the other asks is "pay is a problem that makes your job difficult" (1 = no).

*Health insurance benefits*

Two survey questions about the availability of health benefits, both for the aide and for his/her family, are summed to create a score. This score weights the availability of health benefits for the home health aide by a factor of 2 to emphasize the individual health of the home health aide.

*Good benefits*

This variable sums information from 17 survey items to create a score (from 0 – 23) ranging from about the range of benefits available to the home health aide through the agency where they are employed. Three questions are weighted by a factor of 3 because they comprise the workers' overall assessment of the benefits as "good." These survey items indicate that aides remain working in their current job to maintain benefits, their overall satisfaction with benefits, and alternately posed, if they found benefits problematic (reverse coded). More details about this scale construction are found in Appendix A.

*Model 5 adds agency characteristics of a structural or legal nature*

2. *Agency characteristics*

   Structural aspects of the home health care agencies as institutions were taken into account in the fully specified models to determine their association with health outcomes. Agency type (i.e., certified home health agency or other type), geographic location (urban vs. rural), and ownership (i.e., "for profit" vs. "not-for-profit").

*Agency type*

Agencies were differentiated between home health agencies, hospice agencies, and those who performed both functions. The reference group was home health agencies.

*Urban/rural*

Constructs of rural and urban population levels were reflected in the survey using federal definitions of metropolitan and micropolitan statistical areas. Respondents were asked if they worked in a metropolitan area (over 50,000), a micropolitan area (between 10,000 and 50,000) or an "other" area indicating a non-urban area (reference group).

*Ownership*

The ownership of an agency was captured in a dichotomous survey item indicating either "for profit" or "others." The reference group "others" agency ownership.

*Chain affiliation*

The chain affiliation was captured in a dichotomous survey item, with the reference group not being affiliated with a chain.

*Analytic Plan*

A series of multivariate analyses appropriate for categorical outcome measures were conducted culminating in a fully specified model that incorporated constructs from each of the theoretical approaches drawn together for this study. The CATMOD procedure in SAS fit the linear models to the functions of categorical data to facilitate calculations for multinomial

variables. Maximum likelihood estimation was employed for the analysis of the generalized logits for both dichotomous and polychotomous outcome measures.

All data are cross-sectional and were analyzed in SAS 9.4 using standard procedures for executing regressions to test the dependent variables. Results are reported in a series of tables leading to a fully specified model indicating variables of significance according to APA standard reporting methods. Analysis included appropriate efforts to satisfy the assumptions necessary for making judgments about significance as a weighted least squares (WLS) model.

The CATMOD procedure is versatile and useful because independent variables are categorical. Furthermore, variables are nominal, meaning they have no concept of ordering, and yet the CATMOD procedure performed a "generalized logits analysis" (SAS Institute, 2015; Agresti, 2007)

Phase 2: Qualitative Inquiry at Certified Home Health Care Agencies in Upstate New York

The qualitative protocols for this study included participant-observation at certified home health care agencies, key informant interviews with agency executives, and also with home health care workers. Touring the facilities and spending time with agency staff in frank discussion generated a deeper understanding of how the job strain is created and maintained and also how effort-reward imbalances are negotiated. Interview instruments were designed, and data were coded and analyzed to expand knowledge of the Karasek's model and of Siegrist's model, while also exploring Pearlin's stress process model. Home health care workers' narratives contained rich occupational histories and offered an open-ended opportunity for participants to express how job strain or effort-reward imbalance was developing, especially as they fully characterized the work conditions they were currently experiencing. Analysis of the discursive

narratives gave new knowledge about the impact of the social environment of the agency on work-related strains especially in context with other variables known to be related to stress levels at work.

*Selection Criteria for the NYS Home Health Care Agencies*

The sampling frame started with all certified home health care agencies (CHHA) registered with the New York State Department of Health (NYS DOH). Syracuse University Professor of Practice, Thomas Dennison, fostered connection to these nine home health care agencies and arrangements were made for 45 interviews, 18 of which were with agency executive staff at the highest levels of the organization. Connections and access to agencies were also developed via the New York State Home Care Alliance, an organization that advances home care agency interests statewide.

Selection criteria took into account the following factors: geographic coverage of NYS, city or town size, size of agency (measured by the number of home health aides on staff), and relevant organizational structures determined through consulting with key informants in the field. After each of the nine sites provided letters of cooperation and approval of the project was obtained from the Institutional Review Board of Syracuse University, qualitative protocols took place over two or three days at each site. At least sixteen hours of qualitative work occurred at each agency. Each agency granted several hours of access for participant observation. Formal consent for each interview was obtained according to ethical standards of social science researchers Syracuse University Institutional Review Board requirements. In-depth, semi-structured interviews with two key staff and three home health care workers took place in a confidential, undisturbed office setting. Interviews ranged from 45 minutes to 3 hours with most

lasting an hour and half. Face-to-face interaction was recorded, transcribed, and stored securely on a password protected data storage device. All persons interview received a gift card for $20 in appreciation for the time invested.

*Participant-Observation*

Observational activity varied to achieve a balanced approach, negotiating the tension inherent in attempting to blend in with operations in progress during the business day while the members of the agency are fully aware that a research project is underway. Specific activity as a participant observer was permitted in each agency, but the types of activity depended on the agency leader's decision. At times, I was able to blend into the work routines of the office. At other times I was able to frame the observation time as an attempt to understand her role as agency head. I was frequently able to observe typical operating activities when assuming a "shadowing" role. In this way, I gained access to the full range of the day's business, offering a quick window on the agency's functioning and current problems as they arose. In addition to observing internal agency spaces, I would also observe the physical perimeter of the agency along with the outdoor aspects of the facilities, especially watching for staff activity.

Selecting both the specific activity and specific location for spending the hours in observation depended on levels of access granted by the agency, my ability to engender quick trust and my ability to implement opportunity-sensing skills (i.e.,, making decisions on the spot about how much to blend in or alternately hang back). Recognizing variation in the way I was permitted to observe agency activity, I capitalized on any conversations or special opportunities for further connection arising from these interactions, especially if margins of time were worked into the protocols to allow for "off the record" comments that are sometimes as rich as the more

formal interaction inside the interview. Participant-observation at home health care agencies exceeded 50 hours in total.

*Analytical Plan*

Extensive observational field notes were written immediately following the participant – observation. Focused coding techniques were used to analyze for themes for development of a detailed analysis (Emerson, Fretz, & Shaw 2011; DeWalt & DeWalt, 2011). More attention was paid to connections that might improve knowledge about occupational stressors (Schonfield & Mazzola, 2013) within the context of home health care provision.

*Key Informant Interviews, Agency Leaders*

Agency leaders were generous with key information and insight related to the work-related stress for the home health care workers inside their organizations. Even when not directly involved with home health aides on a daily basis, they were in a unique position to describe mechanisms for structural pressures due to finances, regulatory constraints, or constellation of issues and how they may relate according to business cycles.

The agency leaders were asked to suggest a second key person in the agency who would have key agency knowledge. Most frequently the top agency leader suggested a managing supervisor of the entire group of home health aides. These were generally very seasoned professionals who have had extensive nursing backgrounds. Occasionally, the second interview was supplied by a chief financial officer or a chief operations officer.

The series of questions required some customization depending on their unique role and vantage point of the interviewee. Having the benefit of the perspective of three different levels of

authority represented in the interviews (upper management, middle management, and lower wage earners) added good triangulation of information. The interview guide for the agency leader and other key personnel appears in Appendix B.

Agency leaders were all women and, in fact, there were very few men involved in the executive levels of these nine agencies. Most of these women held a designation of either "executive director" or "chief executive officer." These women assumed a mentor-like stance in most cases, seemingly assuming that I was aspiring to take on a role of some importance in their field, as either a researcher or in an executive position. In some cases, the women assumed the posture of "agency representative," clearly desiring to represent the history, achievements and challenges of their agency with clarity and analytical strength.

Overall, agency leaders were generous with their time. Interviews were generally about 90 minutes, although some were pressed for time and gave interviews as short at 45 minutes and others seemed interested in imparting as much knowledge and wisdom as they could, lingering over the 2 hour mark. Interviews took place on-site at the agency in the agency leaders' offices. Generally, these offices were easy to find and well equipped. Offices had sufficient staff support, and signaled the leadership role by their location, size, and signage. Agency leaders were generally stylish and wore formal business attire (i.e., skirted suit, pant suit or jacketed dress with dress shoes, coiffure and make up.). This formality seemed *de riguer*, especially in larger agencies.

As an interviewer, I assumed the stance of a novice in the field of gerontology, explained the rationale for the study, expressed thankfulness for their time and thoughts, and proceeded with a fairly open-ended stance. Most interviews began with the interviewee discussing their work history as an ice breaker and these specific "journeys to the top" were often illustrative of

the history of home health care more generally. Mainly, I asked leaders to identify agency-level stressors that affect home health aides from their perspective. In addition, I asked leaders to cover issues and questions most pressing to them in their day-to-day work.

*Home Health Care Worker Interviews*

Every attempt was be made to select home health care workers who represented a wide variation of perspectives and experiences. However, access to workers was limited by the choices made by the agency executive leader. In every case, the leader claimed to be motivated to select aides based on the aides' availability only, citing that they would be at the mercy of the scheduling demands of the clients' needs. Yet, it was impossible to be entirely sure that any of the leaders was not motivated to select the more cooperative or sympathetic workers from her pool of available workers. Generally, interviews were set up ahead of time, generally by the administrative staff or the schedulers. Once on-site, the staffs convincingly assured me that they simply called available aides and that there was no favoritism at play.

For each agency, three interviews with home care workers were scheduled and there were no cancellations. The worker interviews were more structured than the agency staff interviews, in order to gauge worker reactions about issues that inform study constructs. The interview guide consisted of three successive parts. In the first part, the interviewee was asked a short survey of questions to gain basic information. In the second part, the worker provided an open ended narrative during which the home health care worker was be guided to share their occupational history in the context of their life story (Kreiswirth, 1992; Reissman, 2008; Chase, 2011). Features of a narrative approach reflect the theoretical impulse to include benefits that temporality, singularity, and ethicality that are found in narrative discourse (Charon, 2006, pgs.

39-62)). The third part of the interview, I specifically narrowed the focus of the interview to core study constructs/measures in order to ask more details about their experience of work-related stressors.

After consulting a number of relevant existing surveys (i.e., the NHHAS, the Job Content Questionnaire, the Quality of Work Life Module of the General Social Survey and the Demand Induced Strain Compensation questionnaire), I composed questions in light of the opportunities to probe for elaboration in an in-depth interview (Landsbergis & Theorell, 2000; van den Tooren & de Jonge 2008; de Jonge et al., 2008; Sondik, Madans, & Sisk, 2010). In addition, elements from The Employment Precariousness Scale (EPRES) developed by Vives, et al. in 2010 were included. Elaboration on themes of precarity included topics about the temporariness of employment status, vulnerability, rights and the exercise of rights, and disempowerment. The interview guide constructs are listed in Appendix C and their corresponding scripted questions appear in Appendix D.

*Analytical plan for interviews*

Qualitative data from interviews were recorded, transcribed and stored on secured computers. Material was coded for emergent themes. Interviews were conducted under the central assumption and the honest expectation that an interview is a conversational partnership in which responsive interviewing technique elicits vivid detail and nuanced depth (Rubin & Rubin, 2011; Crabtree & Miller, 1999).

Phase I and II Study Aims and Challenges

Ultimately, understanding the relationship between socially determined factors and health is of central importance. Therefore, this study hypothesized that agency-level characteristics, socio-economic conditions, and some individual work-related conditions would be related to workers' health, even while taking into account work-related stressors and also while controlling for common demographic factors. Quantitative findings were significant for both occupational health status and self-reported health. Qualitative findings added knowledge about potential mechanism for stress generation at the agency-level.

For the Phase I foundational quantitative work based on the NHHAS, the original limitations of the CDC data still apply. The data was collected just before the economic downturn of 2008, so it may understate financial strain and job precarity relative to this time period and at the same time be historically less relevant to current circumstances. In addition the study may be limited due to some low powered cells in the multinomial regression.

For the qualitative work, interviews and observations were focused on the central themes developed in the conceptual model with similar hypotheses, however interviews common challenges must be seriously considered. Bias toward the agency might have occurred due to workers fear of retaliation if they were to speak frankly about poor work conditions. Agencies may represent a set of more exemplary agencies than is the norm, especially because home care agencies with poor performance might have been reluctant to expose themselves to a researcher. This research project is limited because it ignores informal caregiving arrangements, between family and non-family members. This research project is limited to New York State. Other states may have different payment policies and worker protections, making it difficult to generalize findings to other states. The convenience sampling of home health aides drawn from the same

site as the agency leaders may also have weakened the study by creating concern that confidentiality might not be upheld. These, and other issues, will be discussed in more detail in Chapter 7.

# CHAPTER 4

## FACTORS PREDICTING HEALTH AND OCCUPATIONAL HEALTH WITH A MULTINOMIAL LOGISTIC REGRESSION MODEL

Low-wage workers bear unique and hazardous working conditions (Leigh, 2016). The problems of home health care worker align more closely with those of low-wage workers than workers involved in health care more generally (Folbre 2012). The depth provided by the National Home Health Aide Survey (NHHAS 2007) provides a unique opportunity to examine stress process models in a fast growing and vitally important low-wage occupation in the health care sector. In order to establish the relative importance of social factors and their impact on health, an exploratory study design helps "move beyond traditional accounts of demand, control and support" as Vanroelen et al. (2009) suggest is crucial.

Demand for home health care is expected to increase steeply over the next decade. Furthermore, the medical complexity of patients coming home to convalesce is creating a "hospital without walls" that increases strain on home care agencies who must supply high quality care utilizing a workforce that is seriously compromised with exploitive conditions, limited training and poor access to resources to address patient needs (Moorman & Macdonald 2012).

The CDC commissioned the NHHAS in conjunction with the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) due to the urgency related to the recruitment and retention of home health aides as a part of the general long-term care workforce. Focused on elements of job satisfaction, the survey was designed to help agencies with hiring, screening, training and retaining home health aides. While the data are limited in some ways due to that focus, the fact that the aides themselves answered so many

detailed questions about their working lives provided a richness from which a complex model describing their work-related stress could be developed.

As previously detailed in Chapter 3, cross-sectional data were drawn from the CDC NHHAS, a two-stage probability survey conducted via telephone between September 2007 and April 2008. Aides were sampled from 955 eligible agencies resulting in 3,377 aides completing the survey. To be eligible aides had to be working at the sampled agency, and were responsible to provide Activities of Daily Living (ADLs). At stage two, the unweighted response rate was 79% and the weighted response rate was 71%.

The survey instrument is comprised of twelve sections:

A Current employment
B Recruitment
C Education and training
D Job history
E Family life
F Management and supervision
G Patient relations
H Job satisfaction
I Job rating
J Work-related injuries
K Demographics
L Agency Leaver

The heart of the survey was to explore the process of recruitment and retention by focusing on job history, job satisfaction and comparisons with similar items answered by "agency leavers" to see differences between those who stayed and those who left an agency. Because findings should be interpreted in light of selection bias, it is important to note that individuals do not select into occupations with randomness. A number of factors influence who becomes a home health care worker. Chief among those reasons and consequential for this study, is that fact that the work of a home health aide requires a basic level of physical fitness. Therefore, it is unlikely that anyone in fair or poor health would undertake this work.

Variables included items about family life, but these sections on family life were sparser and did not include complements of questions about the way work and non-working life interface, such as work-family interference. There were several series of questions useful to this study including attention to health and safety in the workplace, supervisor characteristics and questions related to work demands, control, and rewards.

Survey findings indicated a vulnerable workforce at-risk for poverty due to low wages with over 10% receiving TANF, WIC or SNAP when surveyed. At that time the national mean for hourly wages was $19.56, but home health aides were only making an average of $12.31. Home health aides were generally experienced and found satisfaction in their work, reporting that they were committed to their field and to their current employer (Bercovitz et al 2010; Bercovitz et al 2011). For this present study, the sample was reduced from 3,377 to 3,235 in order to drop cases with missing data in variables required by the study model.

## CONCEPTUAL FRAMEWORK

A number of working frameworks seek to explain the associations between work conditions and health (Karasek, Baker, Marxer, Ahlbom, & Theorell 1981; Landsbergis, Greiner, Krause, Schwartz, & Theorell 2000; Siegrist 2000; Siegrist 2010; Sauter 2002; Lipscomb, Loomis, McDonald, Argue, & Wing 2006; Tausig & Fenwick 2011). This study takes these models into account, but defines them in terms of the stress process models developed by Leonard Pearlin and Carol Aneshensel, the goal being to demonstrate social pathways that connect agency structures to occupational health outcomes in a way that recognizes not only the environs in which stressors arise, but also the moderators and mediators of those strains. Ultimately, this cross sectional empirical work would assist to inform longitudinal work that

would more fully articulate stress proliferation over time (Pearlin 1989; Pearlin 1999; Pearlin, Schieman, Fazio, & Meersman 2005; Avison, Aneshensel, Schiemean, & Wheaton 2010).

## ANALYTIC APPROACH

To investigate the associations between the dependent and independent measures, I specify five multinomial logistic regression models. Using the CATMOD procedure provided by SAS 9.4 to model data for categorical variables produces a table showing the full set of contingencies. The CATMOD procedure estimates the model using "maximum likelihood (ML) estimation of parameters for log-linear models and the analysis of generalized logits" (SAS Institute, 2013).

The CATMOD procedure produces standard response functions using generalized logits. The default estimation method is maximum likelihood (ML). Responses are categorical meaning they have no inherent order. A logistic regression is performed on the generalized logits. The multinomial analysis estimates the odds of each category with the last category as the reference. The model to be fit is described using mathematical terms in Figure 4.1.

Multinomial Logistic Regression Model

$$\text{logit(y=1)} = \log\left(\frac{p(y=1)}{1-(p=1)}\right) = \beta_0 + \beta_1 \cdot x_{i2} + \beta_2 \cdot x_{i2} + \ldots + \beta_p \cdot x_{in} \text{ for } i = 1 \ldots n .$$

$$\text{logit(y=2)} = \log\left(\frac{p(y=2)}{1-(p=2)}\right) = \beta_0 + \beta_1 \cdot x_{i2} + \beta_2 \cdot x_{i2} + \ldots + \beta_p \cdot x_{in} \text{ for } i = 1 \ldots n .$$

… y=(k-1).

(Statistics Solutions, 2014)

Figure 4.1

The CATMOD procedure produces six tables. The first three tables consist of a data summary, and both the population and response profiles of the sample. The fourth table is simply a statement about the ML analysis indicates if the ML computations have converged. The fifth table gives the degrees of freedom and Wald Chi-Square with significance in an Analysis of Variance. Determination of model fit is obtained by interpreting the Likelihood Ratio for non-significance. The sixth and final table produced by the CATMOD procedure is the Analysis of ML Estimates. The contingency table lists beta coefficients for each category of each variable, calculated relative to the referent group for each variable, partitioning the variance by sources of potential influence on the model. Relative Risk Ratios can be determined from the beta coefficients. Wald Chi squares and their associated probabilities determine significance of the categories as delineated by the model.

The multinomial logistical regression was chosen over other options, such as an ordinal logistic regression or a Poisson regression largely because of the categorical nature of the public data set. Obtaining non-public data with more continuous variables might allow for more efficient and effective model estimation. Further discussion about analytical decisions and other limitations will appear in chapter 7.

# RESULTS

## Descriptive Statistics

Table 4.1 and Table 4.2 describe the statistical sample of the 3,235 home health aides.

**TABLE 4.1 DESCRIPTION OF THE SAMPLE, HOME HEALTH CARE WORKERS (N= 3235)**
**Individual Characteristics**

| | N | % |
|---|---|---|
| SOCIO-DEMOGRAPHICS | | |
| Gender | | |
| *Female* | 3137 | 96.97 |
| *Male* | 98 | 3.03 |
| Age | | |
| *20-29* | 354 | 10.94 |
| *30-39* | 602 | 19.94 |
| *40-49* | 969 | 28.63 |
| *50-59* | 913 | 28.22 |
| *60 and over* | 397 | 12.27 |
| Hispanic | | |
| *Yes* | 228 | 7.05 |
| *No* | 3007 | 92.95 |
| Race | | |
| *White* | 2299 | 71.07 |
| *Black* | 691 | 21.36 |
| *Other (non-white, non-black)* | 245 | 7.57 |
| Education Level | | |
| *Less than High School* | 410 | 12.67 |
| *High School or Equivalent* | 1642 | 50.76 |
| *More than High School* | 1183 | 36.57 |
| Annual Household Income | | |
| *Up to $20,000* | 612 | 18.92 |
| *Between $20,000 and $39,999* | 1537 | 47.51 |
| *Over $40,000* | 1086 | 33.57 |
| Marital Status | | |
| *Never Married* | 378 | 11.68 |
| *Married* | 1798 | 55.58 |
| *Living with partner* | 216 | 6.68 |
| *Separated* | 116 | 3.59 |
| *Divorced* | 558 | 17.25 |
| *Widowed* | 169 | 5.22 |

| | | |
|---|---|---|
| Government Program for Medical Needs (Medicaid)? | | |
| *Yes* | 354 | 10.94 |
| *No* | 2881 | 89.06 |
| HEALTH | | |
| Self-Rated Health | | |
| *Excellent* | 241 | 7.45 |
| *Very Good* | 882 | 27.26 |
| *Good* | 1200 | 37.09 |
| *Fair or Poor* | 912 | 28.19 |
| OCCUPATIONAL HEALTH | | |
| Work days missed (resulting from injury or illness in the preceding 12 months) | | |
| *None* | 2930 | 90.57 |
| *Between 1 and 5* | 167 | 5.16 |
| *6 or more* | 138 | 4.27 |
| Number of work-related injuries recorded in the past 12 months | | |
| *None* | 2635 | 81.45 |
| *One injury* | 464 | 14.34 |
| *Two or more injuries* | 136 | 4.20 |
| WORK-RELATED STRESSORS – WORKER LEVEL | | |
| | Mean | Standard Deviation |
| Work demands | 0.79 | 1.203 |
| Low work control | 3.50 | 2.71 |
| Effort-Reward Imbalance | 5.63 | 2.002 |
| Additional caregiver burdens outside of work | 0.25 | 0.524 |
| | | |
| | N | % |
| Racial discrimination on the job | | |
| *Yes* | 2883 | 89.12 |
| *No* | 352 | 10.88 |

| **TABLE 4.2 DESCRIPTION OF THE SAMPLE, HOME HEALTH CARE WORKERS (N= 3235)**<br>**Agency-Level Characteristics** | | |
|---|---|---|
| | N | % |
| AGENCY-LEVEL BUFFERS: TRAINING AND SUPPORT | | |
| Training (all training is self-reported) | | |
| *No Training* | 493 | 15.24 |
| *Hands-on training/ agency based* | 188 | 5.81 |
| *Hands-on training/ offsite training entity* | 249 | 7.70 |
| *Classroom training/ agency based* | 123 | 3.80 |
| *Classroom training/ offsite training entity* | 359 | 11.10 |
| *Mixed training methods / agency based* | 459 | 14.19 |
| *Mixed training methods / offsite training entity* | 1364 | 42.16 |
| | | |
| | Mean | Standard Deviation |
| Supervisor Support (respect, communication, praise, listens) | 6.59 | 2.353 |
| Agency-Level Support (respect, communication) | 19.00 | 1.574 |
| | | |
| | N | % |
| WORK ARRANGEMENTS | | |
| Less than 6 months | 72 | 2.23 |
| 6 months but less than one year | 62 | 1.92 |
| 1 year but less than 2 years | 134 | 4.14 |
| 2 to 5 years | 639 | 19.75 |
| 6 to 10 years | 618 | 19.10 |
| 11 to 20 | 1198 | 37.03 |
| More than 20 years | 512 | 15.83 |
| | | |
| | Mean | Standard Deviation |
| Tenure in months at current agency | 75.10 | 73.110 |
| Good pay? | 0.25 | 0.432 |
| Health insurance coverage through work? | 2.54 | 1.024 |
| Good benefits? | 14.53 | 3.122 |
| AGENCY CHARACTERISTICS | | |
| Agency Type | N | % |
| *Home Health Care Agency* | 922 | 28.50 |
| *Hospice* | 1152 | 35.61 |
| *Home Health Care Agency and Hospice Mixed* | 1161 | 35.89 |
| Metropolitan Statistical Area | | |

| | | |
|---|---|---|
| *Metropolitan* | 1244 | 38.45 |
| *Micropolitan* | 1161 | 35.89 |
| *Neither* | 830 | 25.66 |
| Ownership | | |
| *For Profit* | 997 | 30.82 |
| *Others* | 2238 | 69.18 |
| Chain-affiliation | | |
| *Yes* | 746 | 23.06 |
| *No* | 2489 | 76.94 |

The sample is overwhelmingly female (97%), reflecting the fact that the occupation is generally taken up by women. Figure 4.2 visually displays information about the age of home health aides in the survey.

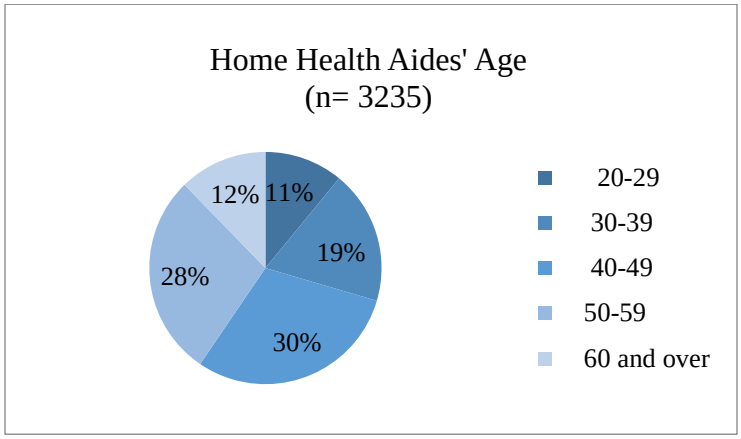



Figure 4.2

Approximately 70% of the home health aides in the sample were over 40 years of age.

The majority were white, although about 29% were not with 21.4% reporting as black and 7.6% reporting as “other.” At the same time, 7.1% reported as Hispanic. With further cross tabulation, ethnic breakdown could be more carefully determined: 3% were white and Hispanic, 0.5% were black and Hispanic and 5% reported that they were not white, Hispanic or Black

(likely Asian, Native American, those with mixed heritage, etc.). The sample seems to under-represent Latinos, given that they comprise approximately 20% of the U.S. population, based on the ACS (Kelly, Morgan, Jason 2011).

Just over half had completed high school or the equivalent, and only 12.7% did not complete high school. So, 36.6% possessed education beyond high school, either in college or other training environment. Household incomes ranged, with most reporting annual figures between $20,000 and $39,999. Most (62%) were married or partnered, but about 38% were separated, divorced, widowed or never married. About 11% were participating in a government program to meet medical needs at the time of the study (usually Medicaid).

The sample follows predictable patterns for self-rated health, in that most reported good or very good health, but some 28% reported being in fair or poor health and only 7.4% reported excellent health. Occupational health measures describe a sample comprised of 14% of home health aides injured once and 4% injured two or more times in the preceding 12 months. In addition, 4% reported missing work 6 or more days and 5% missing between 1 and 5 days due to an on the job illness or injury. Some 11% had experienced racial discrimination on the job.

Most frequently, home health aides report having had training that employs mixed methods (42%). Most aides were not new to their occupation, with only 8% having worked as a home health aide for less than 2 years. Figure 4.3 visually displays the number of years working as a home health aide in any agency.

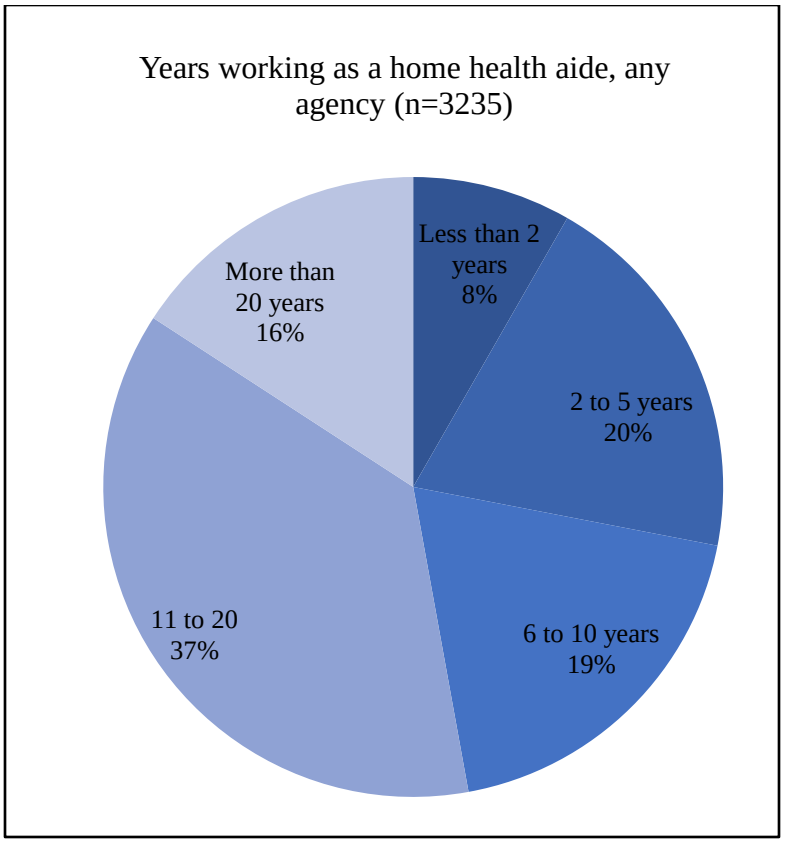



Figure 4.3

The average tenure at their current agency was 6.25 years (m=75.1 months, s.d. 73.110).

Home health aides working in an urban setting (38%), suburban or smaller city setting (36%) was more commonly reported, in this sample, than rural settings (26%). Most home health aides were working at an agency that offered home care without hospice services (64%), but some aides worked at agencies solely focused on hospice care (36%). Only 31% of the agencies were operating in a "for profit" capacity and only 23% were affiliated with a chain.

Scores were developed for the independent variables related to work-stress theories. Means and standard deviations are indicted here: Work demands (m=0.79, s.d. 1.203), Work control (m=3.50, s.d. 2.71), effort-reward imbalance (m=5.63; s.d. 2.002), and the presence of additional care work burdens (m=0.25, s.d. 0.524). Scores were also captured for the general

sense that the agency provided good pay (m=0.25, s.d. 0.432), provided health insurance coverage (m=2.54, s.d. 1.024), and generally good benefits (m=14.53, s.d. 3.122).

Figure 4.4 and Figure 4.5 visually display scores for the variables indicating work-related stress.

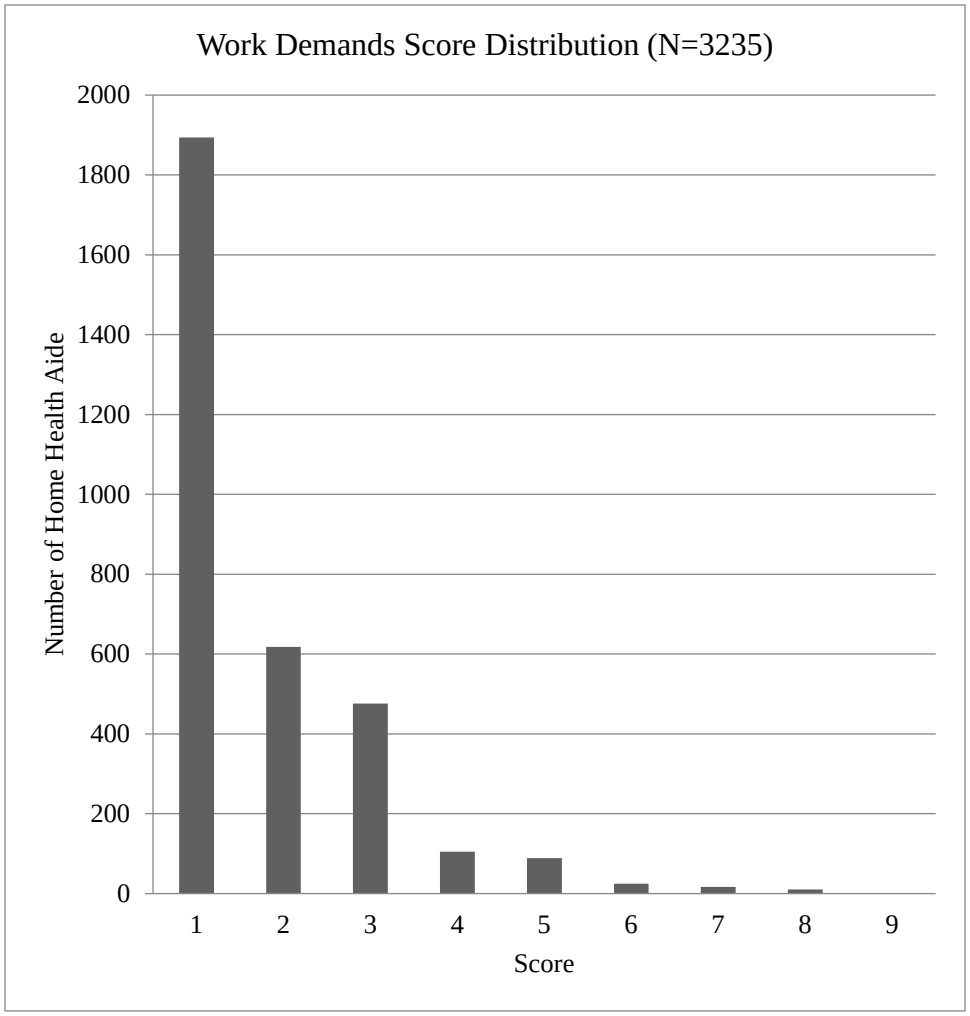



Figure 4.4

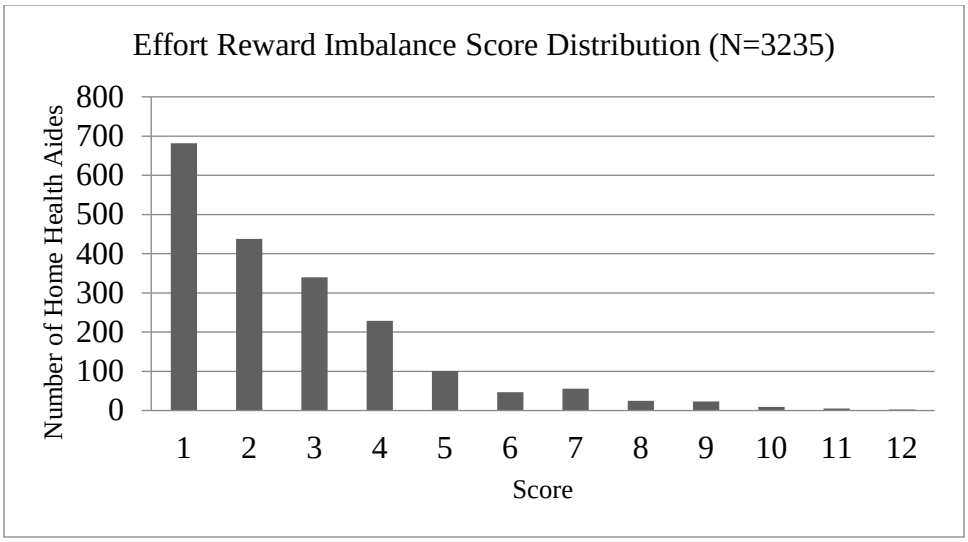



Figure 4.5

As indicated by the lowest score, many people do not register any concern about work demands or the imbalance between work and the rewards for work. But among those who do, the lower scores indicate work demands and Effort-Reward Imbalance are more prominent, while more severe stressors are affecting fewer home health aides.

Table 4.3 describes the occurrence of injuries commonly sustained by home health aides on the job in the sample selected for this study (n=3235).

| **TABLE 4.3 Home Health Aide Injuries* (N=3235)** | | |
|---|---|---|
| | Count | Percent |
| Back injuries including pulled back muscles | 247 | 7.6 |
| Other strains or pulled muscles | 205 | 6.3 |
| Burns and/or wounds | 128 | 4 |
| Other injuries | 116 | 3.6 |
| Black eyes or other bruising | 72 | 2.2 |
| Animal bites | 61 | 1.9 |
| Abuse or assault by patient and/or human bites | 24 | 0.7 |
| Falls | 17 | 0.5 |
| Needle sticks | 16 | 0.5 |
| Personal injury | 16 | 0.5 |
| Injuries associated with cars e.g. accidents or maintenance | 5 | 0.2 |
| *Injuries reported to the agency in the previous 12 months and required medical attention OR caused missed work. | | |

Only those injuries reported to the agency, requiring medical attention or that caused the home health aide to miss work are included. How the injuries occurred in the course of the home health aides' work is an important consideration. For these injuries, the three most frequently reported specific work conditions explaining how they occurred were: lifting, reposition, bathing, handling patients, and/or bumping or hitting equipment (10.1%); slips, trips, falls (2.7%); and aggression, violence, abuse by patients (2.4%)

Multinomial Logistic Regression Results

This study forges the connections between work-related stressors and health for home health aides through an occupational health lens enhanced by sociological framing and explorations of mediating factors involved in carrying out the work, in agency behavior, and socio-demographics. As previously described in Chapter 2, I organize the conceptual framework in the following additive modeling sequence demonstrated in Figure 2.4.

Models 1 – 5 feature variable groupings around these themes:

1. Work-Related Stressors: Worker Level
2. Socio-demographics
3. Agency-Level Buffers: Training and Support
4. Work Arrangements
5. Agency Characteristics

These sets of variables are explored in blocks that build conceptually. The analysis begins with variables constructed to represent work-related stressors from both Karasek and Siegrist models along with the experience of racial discrimination on the job and the condition of having additional care burdens outside of work. Model 2 adds socio-demographic factors. Model 3 continues with Karasek's conceptual model by exploring agency-level support in the form of training and other types of support. Model 4 and 5 add themed sets of socially constructed elements, one exploring societal level factors and the other adding institutional elements found in the agencies themselves.

Tables 4.4, 4.5 and 4.6 give the results the multinomial regression analyses, with each table presenting one of three distinct dependent variables being examined in this study (self-rated health, days away from work, number of injuries). For ease of interpretations, tabled results will delineate Model 2 compared with Model 5. Model 2 shows the relationship between work-related stressors and health, controlling for socio-demographic controls and Model 5 is the fully specified model. All of the models are featured in a supplementary analysis in Appendix E, including Model 1, which gives the bivariate relationship without socio-demographic controls and the intermediary Models 3 and 4. Appendix F provides a brief summary of the models shown in Appendix E.

*Self-Rated Health*

Table 4.4 gives the predictors of self-rated health. Standard interpretation of the logit is expressed as follows: for each unit change in the independent variable, the logit of the dependent variable (relative to the referent group) is expected to change by its respective log-odds units, given the other variables in the model are held constant.

| **TABLE 4.4 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH (N=3235)** | | | | | | |
|---|---|---|---|---|---|---|
| Dependent Variable: Self-Rated health | | | | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | | | | |
| *Referent group = Excellent* | | | | | | |
| | [2] | | | [5] | | |
| | Very Good | Good | Fair or Poor | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | | | | |
| Work demands | 0.0422 | 0.00674 | 0.0894 | 0.0371 | 0.00445 | 0.0653 |
| | [0.039] | [0.0424] | [0.0579] | [0.0396] | [0.043] | [0.0593] |
| Low work control | 0.0480** | 0.0681*** | 0.0682* | 0.0486** | 0.0644*** | 0.0515 |
| | [0.0177] | [0.0189] | [0.0277] | [0.0181] | [0.0194] | [0.0285] |
| Effort-Reward Imbalance | 0.0401 | 0.0422 | 0.2080*** | 0.0437 | 0.0215 | 0.1524*** |
| | [0.0251] | [0.0267] | [0.0338] | [0.029] | [0.031] | [0.0405] |
| Racial discrimination on the job | 0.2259 | 0.2842* | 0.1631 | 0.2215 | 0.2924 | 0.0873 |
| | [0.1607] | [0.2842] | [0.2428] | [0.1628] | [0.1709] | [0.249] |
| Additional caregiver burdens outside of work | 0.1497 | 0.2258* | 0.2745* | 0.1395 | 0.2165* | 0.2523 |
| | [0.0898] | [0.0945] | [0.1352] | [0.0907] | [0.0954] | [0.1375] |
| Work-Related Stress Buffers – Agency-Level | | | | | | |
| Hands-on training/ agency based | | | | -0.4477* | -0.2898 | -0.1400 |
| | | | | [0.2174] | [0.2319] | [0.3633] |
| Hands-on training/ offsite training entity | | | | -0.2347 | -0.1397 | -0.2696 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | [0.2014] | [0.2138] | [0.3424] |
| Classroom training/ agency based | | | | -0.053 | -0.1762 | -0.1565 |
| | | | | [0.2613] | [0.2868] | [0.4298] |
| Classroom training/ offsite training entity | | | | -0.0739 | -0.0604 | -0.6426 |
| | | | | [0.181] | [0.194] | [0.3285] |
| Mixed training methods / agency based | | | | -0.1034 | -0.1344 | -0.0922 |
| | | | | [0.1665] | [0.1807] | [0.2815] |
| Mixed training methods/offsite training entity | | | | -0.1562 | -0.1885 | -0.0787 |
| | | | | [0.1371] | [0.1482] | [0.2291] |
| Supportive supervisor (respect, communication, praise, listens) | | | | -0.0615** | -0.0441 | 0.0295 |
| | | | | [0.0219] | [0.0232] | [0.03] |
| Supportive agency (respect, communication) | | | | -0.0452 | -0.1269*** | -0.1616*** |
| | | | | [0.0353] | [0.0363] | [0.048] |
| Work Arrangements | | | | | | |
| 6 months but less than one year | | | | -0.2082 | -0.2046 | -0.0546 |
| | | | | [0.4364] | [0.4464] | [0.8904] |
| 1 year but less than 2 years | | | | 0.4508 | 0.115 | 0.5192 |
| | | | | [0.3637] | [0.3821] | [0.7485] |
| 2 to 5 years | | | | 0.5628 | 0.149 | 0.4529 |
| | | | | [0.3129] | [0.3234] | [0.6553] |
| 6 to 10 years | | | | 0.5843 | 0.2818 | 1.016 |
| | | | | [0.3179] | [0.3278] | [0.651] |
| 11 to 20 | | | | 0.5699 | 0.3904 | 1.0634 |
| | | | | [0.3189] | [0.328] | [0.652] |

| | | | | | | |
|---|---|---|---|---|---|---|
| More than 20 years | | | | 0.7732* | 0.5125 | 1.4413* |
| | | | | [0.3399] | [0.3511] | [0.6755] |
| Tenure in months at current agency | | | | -0.00014 | -0.00101 | -0.00063 |
| | | | | [0.0008] | [0.000863] | [0.00129] |
| Good pay? | | | | -0.2377** | -0.1897 | -0.3195 |
| | | | | [0.108] | [0.1172] | [0.2035] |
| Health insurance coverage through work? | | | | 0.0799 | 0.0495 | -0.00215 |
| | | | | [0.0482] | [0.0511] | [0.0768] |
| Good benefits? | | | | 0.00159 | -0.00328 | 0.0356 |
| | | | | [0.0151] | [0.0163] | [0.025] |
| Agency Characteristics | | | | | | |
| Agency Type Hospice | | | | -0.0638 | 0.0947 | 0.2119 |
| | | | | [0.124] | [0.1328] | [0.2082] |
| Agency Type Home Health and Hospice Mixed | | | | -0.2295 | -0.2119 | -0.1095 |
| | | | | [0.1208] | [0.1315] | [0.2053] |
| Metropolitan Statistical Area Metropolitan | | | | -0.0432 | -0.1725 | -0.0831 |
| | | | | [0.1232] | [0.1326] | [0.2016] |
| Metropolitan Statistical Area Micropolitan | | | | 0.1081 | 0.0118 | -0.1729 |
| | | | | [0.1184] | [0.1269] | [0.2014] |
| Ownership | | | | -0.0291 | -0.0455 | -0.131 |
| | | | | [0.121] | [0.1302] | [0.204] |
| Chain-affiliation | | | | -0.0421 | -0.1467 | -0.3351 |
| | | | | [0.1198] | [0.1305] | [0.2076] |
| Socio-demographic Control Variables | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Gender | -0.3584** | -0.1861 | -0.4898 | -0.3568** | -0.1697 | -0.4064 |
| | [0.1285] | [0.1297] | [0.2701] | [0.1298] | [0.1313] | [0.273] |
| Age | 0.0102* | 0.0156*** | 0.0230** | 0.00731 | 0.0141** | 0.0155 |
| | [0.0042] | [0.00454] | [0.0071] | [0.00483] | [0.00521] | [0.00829] |
| Hispanic | 0.2455** | 0.1579 | 0.0700 | 0.2268* | 0.1393 | 0.0716 |
| | [0.0912] | [0.0971] | [0.1439] | [0.0927] | [0.099] | [0.1486] |
| Black | -0.1314 | 0.1211 | 0.2033 | -0.1458 | 0.1221 | 0.1625 |
| | [0.1232] | 0.1287 | [0.1939] | [0.1308] | [0.1374] | [0.2092] |
| Other (non-white, non-black) | -0.1917 | -0.315 | 0.1803 | -0.1569 | -0.2711 | 0.2398 |
| | [0.177] | [0.1978] | [0.2759] | [0.1795] | [0.2006] | [0.2822] |
| Education Level: Less than High School | 0.1035 | 0.3797* | 0.1055 | 0.1151 | 0.3748* | 0.1001 |
| | [0.1487] | [0.1529] | [0.2339] | [0.1501] | [0.1547] | [0.2374] |
| Education Level: More than High School | -0.0947 | -0.0904 | -0.2869* | -0.0558 | -0.0622 | -0.2577 |
| | [0.0965] | [0.1052] | [0.1647] | [0.0982] | [0.107] | [0.1681] |
| Annual Household Income : up to $20,000 | 0.3836* | 0.5431*** | 0.8826** | 0.4062** | 0.5575*** | 1.0266*** |
| | [0.1498] | [0.1593] | [0.2388] | [0.155] | [0.1648] | [0.2497] |
| Annual Household Income: between $20,000 and $39,999 | 0.2206* | 0.2407* | 0.3913* | 0.2239* | 0.2324 | 0.4342* |
| | [0.1079] | [0.1176] | [0.1888] | [0.1093] | [0.1191] | [0.1931] |
| Marital Status: Married | 0.4487** | 0.4706** | 0.6271* | 0.4332** | 0.4266* | 0.5749* |
| | [0.1561] | [0.1692] | [0.2739] | [0.1591] | [0.1723] | [0.2806] |
| Living with partner | 0.3036 | 0.2849 | 0.7600* | 0.2974 | 0.2574 | 0.6721 |
| | [0.2158] | [0.2369] | [0.356] | [0.2181] | [0.2392] | [0.361] |
| Separated | 0.7178* | 0.7746* | 0.7013 | 0.7389* | 0.7412* | 0.5779 |
| | [0.2907] | [0.3026] | [0.464] | [0.2949] | [0.3071] | [0.4736] |

| | | | | | | |
|---|---|---|---|---|---|---|
| Divorced | 0.2688 | 0.2148 | 0.4084 | 0.2367 | 0.1754 | 0.3564 |
| | [0.1757] | [0.19] | [0.2986] | [0.178] | [0.1924] | [0.3028] |
| Widowed | 0.052 | 0.149 | 0.0859 | 0.0465 | 0.1333 | 0.000983 |
| | [0.2524] | [0.2643] | [0.4179] | [0.255] | [0.2671] | [0.4236] |
| Government Program for Medical? | 0.0667 | -0.0561 | -0.0183 | 0.0612 | -0.0658 | -0.0646 |
| | [0.0745] | [0.0765] | [0.117] | [0.0755] | [0.0776] | [0.1194] |
| Regression Details (n=3235) | | | | | | |
| Intercept | -1.6045*** | -1.9692*** | -4.474*** | -0.6455 | 1.058 | -1.8668 |
| | [0.4495] | [0.477] | [0.7417] | [0.9583] | [0.9953] | [1.4481] |
| Likelihood Ratio | 7843.07 (df=9E3) | | | 7929.31 (df = 1E4) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

Applying this standard language to interpret this model, we note that one unit change in any independent variable predicts either increased or decreased log odds of being in a category of self-rated health when compared with the referent group which is “excellent” health in this case, all other variables held constant.

Model 2 involves work-related stressors experienced by individual workers. Results indicate that, controlling for socio-demographics, the traditional public health theories derived from both Karasek and Siegrist are mainly upheld. Curiously, work demand is not significant. Compared to those who report excellent health, a one unit increase in lack of work control is associated with an increase in the log-odds of being in the group reporting worse health: Very Good (0.0480, s.d. 0.0177, p. < 0.01), Good (0.0681, s.d. 0.0189, p. < 0.001) and Fair/Poor (0.0682, s.d. 0.0277, p. < 0.05). Similarly, home health aides with increased “Effort-Reward Imbalance” are more likely to report fair/poor health, than excellent health (0.2080, s.d. 0.0338, p. < 0.001).

Home health aides who experienced discrimination on the job (vs. those who do not), were more likely to report only good health than excellent health (0.2842, s.d. 0.2258, p. < 0.05). Home health aides that have higher scores related to additional caregiving burdens are significantly more likely to report that they experience worse health than excellent health: Good (0.2258, s.d. 0.945, p < 0.05), Fair/Poor (0.2745, s.d. 0. 1352, p < 0.05).

Socio-demographic controls included: gender, age ethnicity, education, income, marital status, and participation in government program for medical coverage. Men (vs. women) are less likely to report very good health than excellent health (-0.3584, s.d. 0.1285, p < 0.01). However, older home health aides were more likely than younger workers to report health less than excellent health: Very Good (0.0102, s.d. 0. 0042, p. < 0.05), Good (.0156, s.d. 0.0045, p. <

0.001), Fair/Poor (0.0230, s.d. 0.0700, p. < 0.01). Aides who identified as Hispanic (vs. not Hispanic) were more likely to report that they had very good health than excellent health (0. 2455, s.d. 0.0912, p. < 0.01).

Aides who did not achieve a high school or equivalent education level (vs. those who did), were more likely to report only good health (0.3797, s.d. 0.1529, p. < 0.05) and aides who possessed more than a high school education (vs. those with a high school education or the equivalent) were significantly more likely to report fair/poor health (-0.2869, s.d. 0.1647, p. < 0.05), than excellent health.

When compared with aides who had annual household incomes over $40,000, aides with annual household incomes less than $20,000 were more likely to report that their health was less than excellent: Very Good (0.3836, s.d. 0.1529, p. < 0.5), Good (0.5431, s.d. 0.1593, p. < 0.001), Fair/Poor (0.8826, s.d. 02388, p. < 0.01). Similarly, but with less statistical significance, aides with annual household incomes between $20,000 and $39,999 (vs. those with annual household incomes over $40,000) were also more likely to report health less than excellent: Very Good (0.2206, s.d. 0.1079, p. < 0.05), Good (0.2407, s.d. 0.1176, p. < 0.05), Fair/Poor (0.3913, s.d. 0.1888, p. < 0.05).

Compared with those who never married, those who were married were more likely to report reduced health than excellent health: Very Good (0.4487, s.d. 0.1561, p. <0.01), Good, 0.4706, s.d. 0.1692, p. < 0.01), Fair/Poor (0.6271, s.d. 0.2739, p. < 0.05). The same association was observed for those living with a partner (vs. never married), but only in the case of Fair/Poor health (0.7800, s.d. 0. 3560, p. < 0.05). Recently separated aides (vs. those who never married) were also more likely to report worse health than excellent: Very Good (0.7178, s.d. 0.2907, p. < 01), Good (0.7746, s.d. 0.3026, p. < 0.05).

Overall, the model remained stable across the intervening models. See Appendix D for coefficients for Models 3 and 4. In the fully specified Model 5, work demands continue to be non-significant, however low work control continued to be associated with less than excellent health: Very Good (0.0486, s.d. 0.0181, p. < 0.01), Good (0.0644, s.d. 0.0194, p. < 0.001). Aides with higher Effort-Reward Imbalance were significantly more likely to report fair or poor health than those with excellent health (0.1524, s.d. 0.0405, p. 0.001). Aides experiencing the respect, praise, and communication patterns of a supportive supervisor were significantly less likely to report that they are in very good health than excellent health (0.0615, s.d. 0.0219, p. 0.01). Aides reporting characteristics of a supportive agency, were significantly less likely to report health worse than excellent: Good (-0.1269, s.d. 0.0363, p. < 0.001), Fair/Poor (0.1616, s.d. 0.048, p. 0.001).

Aides with more than 20 years' experience (vs. aides with less than 6 months on the job) were significantly more likely to report that they were in less than excellent health: Very Good (0.7732, s.d. 0.3399, p. < 0.05), Fair/Poor (1.4413, s.d. 0.6755, p.0. 05). Aides were less likely to report they were in very good health (vs. excellent) when they were reporting the jobs to be good paying (-0.2377, s.d. 0.1080, p. < 0.01).

Gender, age, education level, income level, and marital status continue to be significantly associated with self-reported health in the fully specified model. Men (vs. women) are less likely to report very good health than excellent health (-0.3584, s.d. 0.1285, p < 0.01). Older home health aides were more likely than younger workers to report health good health than excellent health (0.0141, s.d. 0.0045, p. < 0.01). Aides who identified as Hispanic (vs. not Hispanic) were more likely to report that they had very good health than excellent health (0. 2268, s.d. 0.0927, p. < 0.05). Aides who did not achieve a high school or equivalent education

level (vs. those who did), were more likely to report only good health (0.3748, s.d. 0.0927, p. < 0.05).

When compared with aides who had annual household incomes over $40,000, aides with annual household incomes less than $20,000 were more likely to report that their health was less than excellent: Very Good (0.4062, s.d. 0.1550, p. < 0.01), Good (0.5575, s.d. 0.1648, p. < 0.001), Fair/Poor (2.0266, s.d. 0.2497, p. < 0.001). Similarly, but with less statistical significance, aides with annual household incomes between $20,000 and $39,999 (vs. those with annual household incomes over $40,000) were still more likely to report health less than excellent: Very Good (0.2239, s.d. 0.1093, p. < 0.05), Fair/Poor (0.4342, s.d. 0.1931, p. < 0.05).

Compared with those who never married, those who were married were more likely to report reduced health than excellent health: Very Good (0.4487, s.d. 0.1561, p. <0.01), Good, 0.4706, s.d. 0.1692, p. < 0.01), Fair/Poor (0.6271, s.d. 0.2739, p. < 0.05). The association did not continue for those living with a partner (vs. never married), but recently separated aides (vs. those who never married) were still, in this model, more likely to report good health than excellent health (0.7412, s.d. 0.3071, p. < 0.05).

Hypotheses related to socio-demographics and work-related stressors at the worker level were mainly upheld. The models demonstrate significant associations between socio-demographics and self-rated health. Self-rated health was lower for aides who are older, married or partnered, have lower education and income levels and for non-white aides. Models demonstrate significant associations between work-related stressors at the worker level and self-rated health. Self-rated health was lower for those with low work control, higher effort-reward imbalance, racial discrimination on the job and additional care burdens when not at work. Hypotheses related to high work demands and racial discrimination on the job were not upheld.

Hypothesis related to “stress buffers” and their association with self-rated health were mainly not upheld. The type of training was not associated better self-rated health. However, hypotheses related to workplace support were upheld. Self-rated health was higher when support from either the agency in general or the supervisor was reported. Hypotheses related to work arrangements were mainly not upheld. Only aides with more than 20 years’ experience and aides reporting good pay were significantly different with regard to self-rated health. Tenure, pay rates, health benefits and general benefits were not significant predictors of self-rated health. Hypotheses related to agency characteristics were not upheld. Self-rated health was not significantly associated with rural/urban setting, non-profit status, type of care provision (i.e., hospice or not), nor chain affiliation. Overall, these findings suggest the effects of work-related stressors on health are not mediated by work-related stress buffers, work arrangements, or agency characteristics, but that these factors have independent effects on worker health.

*Days Away from Work*

Table 4.5 gives the associations between the “days away from work” and the same set of variables related to work-related strains, controlling for demographics.

| **TABLE 4.5 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF DAYS AWAY FROM WORK (N=3235)** | | | | |
|---|---|---|---|---|
| Dependent Variable: Occupational Health | | | | |
| Days away from work | | | | |
| *(referent group = no missing days)* | | | | |
| | [2] | | [5] | |
| | 1-5 | 6 or more | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | | | |
| Work demands | 0.0822 | 0.1674** | 0.0694 | 0.1526* |
| | [0.0614] | [0.0622] | [0.0625] | [0.0648] |
| Low work control | 0.0272 | 0.0177 | 0.0121 | 0.00871 |
| | [0.0289] | [0.0325] | [ 0.0303] | [0.0336] |
| Effort-Reward Imbalance | 0.0974** | 0.1194** | 0.0810 | 0.1322** |
| | [0.0374] | [0.0392] | [0.0446] | [0.0485] |
| Racial discrimination on the job | 0.5770* | 0.0426 | 0.4356 | -0.1161 |
| | [0.2402] | [0.2943] | [0.2476] | [0.3065] |
| Additional caregiver burdens outside of work | 0.1579 | 0.2920* | 0.1336 | 0.2899 |
| | [0.1411] | [0.1563] | [0.1434] | [0.1504] |
| Work-Related Stress Buffers –Agency-Level | | | | |
| Hands-on training/ agency based | | | -0.4208 | 0.6767 |
| | | | [0.4368] | [0.4032] |
| Hands-on training/ offsite training entity | | | 0.4354 | -0.2633 |
| | | | [0.3038] | [0.4962] |
| Classroom training/ agency based | | | -0.3717 | 0.4509 |
| | | | [0.5095] | [0.4812] |
| Classroom training/ offsite training entity | | | -0.5109 | 0.3889 |
| | | | [0.3353] | [0.3577] |
| Mixed training methods / agency based | | | -0.6024 | 0.1457 |
| | | | 0.3302 | 0.3569 |
| Mixed training methods / offsite training entity | | | -0.0974 | 0.2082 |
| | | | [0.2324] | [0.2983] |

| | | | | |
|---|---|---|---|---|
| Supportive supervisor (respect, communication, praise, listens) | | | 0.0235 | 0.0302 |
| | | | [0.0336] | [0.0373] |
| Supportive agency (respect, communication) | | | -0.0782 | -0.0313 |
| | | | [0.0508] | [0.0601] |
| Work Arrangements | | | | |
| 6 months but less than one year | | | 1.3942 | 0.7740 |
| | | | [1.1812] | [1.2656] |
| 1 year but less than 2 years | | | 1.2523 | 1.3593 |
| | | | [1.1133] | [1.1033] |
| 2 to 5 years | | | 1.4313 | 1.1012 |
| | | | [1.0318] | [1.0391] |
| 6 to 10 years | | | 1.5615 | 1.1133 |
| | | | [1.0340] | [1.0398] |
| 11 to 20 | | | 1.6576 | 0.7236 |
| | | | [1.0356] | [1.0456] |
| More than 20 years | | | 1.7831 | 1.5072 |
| | | | 1.0556 | 1.0580 |
| Tenure in months at current agency | | | -0.00144 | 0.00232 |
| | | | [0.00151] | [0.00151] |
| Good pay? | | | -0.2550 | 0.1718 |
| | | | [0.2240] | [0.2272] |
| Health insurance coverage through work? | | | 0.2183* | 0.2521* |
| | | | [0.1064] | [0.1232] |
| Good benefits? | | | 0.0675** | 0.0196 |
| | | | [0.0265] | [0.0304] |
| Agency Characteristics | | | | |
| Agency Type Hospice | | | 0.5242* | 0.2735 |
| | | | [0.2344] | [0.2592] |
| Agency Type Home Health and Hospice Mixed | | | 0.1815 | 0.0982 |
| | | | [0.2380] | [0.2487] |

| | | | | |
|---|---|---|---|---|
| Metropolitan Statistical Area Metropolitan | | | 0.2739 | 0.4419 |
| | | | [0.2256] | [0.2475] |
| Metropolitan Statistical Area Micropolitan | | | -0.0488 | 0.00609 |
| | | | [0.2272] | [0.2501] |
| Ownership | | | 0.0223 | -0.2489 |
| | | | [0.2269] | [0.2654] |
| Chain-affiliation | | | -0.3289 | -0.4214 |
| | | | [0.2384] | [0.2746] |
| Socio-demographic Control Variables | | | | |
| Gender | -0.4774 | 0.0116 | -0.4411 | 0.0450 |
| | [0.3608] | [0.2633] | [0.3634] | [0.2699] |
| Age | -0.011 | 0.00264 | -0.0108 | -0.0070 |
| | [0.0075] | [0.0085] | [0.0090] | [ 0.0101] |
| Hispanic | -0.0361 | 0.1864 | -0.0484 | 0.1646 |
| | [0.1573] | [0.1910] | [0.1619] | [0.2005] |
| Black | -0.6108* | -0.3481 | -0.7530** | -0.2942 |
| | [0.2421] | [0.2602] | [0.2575] | [0.2778] |
| Other (non-white, non-black) | 0.00225 | 0.6618* | -0.0027 | 0.7047* |
| | [0.3092] | [0.2918] | [0.3132] | [0.3041] |
| Education Level: Less than High School | 0.0745 | -0.2821 | 0.0654 | -0.2787 |
| | [0.2516] | [0.2937] | [0.2558] | [ 0.2981] |
| Education Level: More than High School | 0.0417 | -0.2109 | -0.0851 | -0.1936 |
| | [0.1743] | [0.1940] | [0.1791] | [0.1992] |
| Annual Household Income : up to $20,000 | -0.1911 | 0.4560 | 0.0750 | 0.7649** |
| | [0.2712] | [0.2822] | [0.2815] | [0.2966] |
| Annual Household Income: between $20,000 and $39,999 | -0.0406 | 0.2553 | 0.0240 | 0.3126 |
| | [0.1939] | [0.2184] | [0.1995] | [0.2239] |
| Marital Status: Married | -0.0253 | 0.9099* | -0.0711 | 0.9813* |
| | [0.2793] | [0.4222] | [0.2889] | [0.4286] |
| Living with partner | -0.1759 | 1.2427* | -0.2512 | 1.2559** |

| | | | | |
|---|---|---|---|---|
| | [0.3933] | [0.4838] | [0.3997] | [0.4903] |
| Separated | 0.1890 | 1.0738 | 0.0121 | 1.1549* |
| | [0.4625] | [0.5773] | [0.4717] | [0.5870] |
| Divorced | -0.0712 | 0.8534 | -0.1999 | 0.7771 |
| | [0.3215] | [0.4506] | [0.3269] | [0.4547] |
| Widowed | -0.4500 | 0.7660 | -0.4828 | 0.6714 |
| | [0.5374] | [0.5752] | [0.5427] | [0.5880] |
| Government Program for Medical (Medicaid)? | -0.0629 | 0.3641 | -0.4828 | 0.2891 |
| | [0.1272] | [0.1877] | [0.5427] | [0.1903] |
| Regression Details (n= 3235) | | | | |
| Intercept | -2.2331** | -6.7258*** | -3.7963* | -8.4347*** |
| | [0.8186] | [1.0021] | [1.7516] | [1.9765] |
| Likelihood Ratio | 2316.00 (df = 6E3) | | 2257.62 (df = E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

One category includes aides having missed work “between 1 and 5 days” and another category includes aides having missed work “6 or more days,” relative to those missing no days in the preceding year. As before, using the standard interpretation of the logit, we note that one unit change in the independent variable predicts either increased or decreased log odds of being in the category of home health aides that experienced “1 – 5 days away” or in the category of aides that experienced “6 or more days away” when compared with the referent category which had “no missing days,” all other variables held constant.

The first group of variables involves work-related stressors experienced by individual workers. Results indicate that, controlling for socio-demographic characteristics, the traditional public health theories derived from both Karasek and Siegrist are mainly upheld. Curiously, in these models, work demand is significant, but low work control is not. Compared to those who have not missed any days in the preceding year due to work-related illness and/or injury, a one unit increase in work demand predicts the multinomial log-odds of being in the group reporting 6 or more days away from work (0.1674, s.d. 0.0622, $p. < 0.01$). Similarly, the aides with more elevated Effort Reward Imbalance were more likely to report missing work relative to missing none. Significance was high for both aides missing between 1 and 5 days (0.0974, s.d. 0.0374, $p. < 0.01$) and for aides missing 6 or more days (0.1194, s.d. 0.0392, $p. < 0.01$).

Aides experiencing racial discrimination on the job (vs. those who do not), were more likely to have missed between 1 and 5 days (0.5770, s.d. 0.2402, $p. < 0.05$). No significance was found for aides experiencing racial discrimination and missing more than 6 days. Aides with additional care burdens (vs. those without) were significantly more likely to miss 6 or more days (0.2920, s.d. 0. 1563, $p. < 0.1$) than to miss no days.

As in Table 4.4, socio-demographic controls included: gender, age ethnicity, education, income, marital status, and participation in government program for medical coverage. Most of these controls were not significant but if an aide was black (vs. white) the aide was less likely to have missed between 1 and 5 days than to miss no days (-0.6108, s.d. 0.2421, p. < 0.05). Black aides were not significantly different than whites when reporting missing 6 or more days relative to missing no work. However, aides in the "other" category were more likely to miss 6 or more days relative to those who missed no work (0.6618, s.d. 0.2918, p. < 0.05). The other category was comprised of non-whites and non-blacks and included aides were Hispanic, but also included other less commonly classified ethnicities such as Asian, Native American and Pacific Islanders.

Marital status was associated with the likelihood of missing work due to occupational injury or illness within the last year. Relative to aides who had never been married, those who were married (0.9099, s.d. 0.4222, p. < 0.05), living with a partner (1.2427, s.d. 0.4838, p. < 0.05), separated (1.0738, s.d. 0.5773, p. < 0.1), or divorced (0.8534, s.d. 0.4506, p. < 0.1) were more likely to miss more than 6 days compared to missing none. Alternately stated, married aides or those who had been previously married, were significantly different from those who had never married when missing 6 or more days (vs. missing no days), but not when missing between 1 and 5 days. Aides participating in a government program for medical coverage (vs. those who were not) were more likely to miss 6 or more days, than to miss no work (0.3641, s.d. 0.1877, p. < 0.1).

Overall, the fully specified model retained all findings with the same direction and significance levels, except one notable change. The association between work demand and days away from work was significant. Aides with higher work demands were more likely to have six

or more injuries (0.1526, s.d. 0.0648, p. < 0.05). The association between effort-reward imbalance did not remain significant for aides who had five or fewer days away from work, but aides with elevated effort-reward imbalance were more likely to miss six or more days due to an injury or illness at work when compared with those who missed no days (0.1322, s.d. 0.0485, p. < 0.01).

Aides who had health insurance coverage through work were also more likely to miss work than those who did not miss work: Between 1 and 5 days (0.2183, s.d. 0.1064, p. < 0.05), Six or more (0.2521, s.d. 0.1232, p. < 0.05). In addition, aides who reported that they have good benefits (vs. no benefits) were significantly more likely to have between 1 and 5 days away from work due to an work-related injury or illness (0.0675, s.d. 0.0265, p. < 0.01).

In the fully specified model, the last group of variables modeled involved basic agency characteristics. The final variables describing type of home health services delivered, profit vs. non-profit status, chain affiliation and urban vs. rural settings. Aides working in agencies that offer hospice home care were more likely (than aides not working in agencies that do not have hospice services) to report missing work between 1 and 5 days (0.5242, s.d. 0.2344, p. < 0.05).

As in Model 2, socio-demographic controls included: gender, age ethnicity, education, income, marital status, and participation in government program for medical coverage. Most of these controls were not significant but if an aide was black (vs. white) the aide was less likely to have missed between 1 and 5 days than to miss no days (-0.7530, s.d. 0.2421, p. < 0.05). Black aides were not significantly different than whites when reporting missing 6 or more days relative to missing no work. However, aides in the “other” category for race were more likely to miss 6 or more days relative to those who missed no work (0.7047, s.d. 0.3041, p. < 0.05). Aides with

annual household incomes less than $20,000 (vs. over $40,000) were more likely to miss work than not (0.7649, s.d. 0.2966, p. 0.01).

Marital status was associated with the likelihood of missing work due to occupational injury or illness within the last year. Relative to aides who had never been married, those who were married (0.9813, s.d. 0.4286, p. < 0.05), living with a partner (1.2559, s.d. 0.4903, p. < 0.01), or separated (1.1549, s.d. 0.5870, p. < 0.05) were more likely to miss more than 6 days compared to missing none. Alternately stated, married aides or those living with a partner, or those who were separated, were significantly different from those who had never married when missing 6 or more days (vs. missing no days), but not when missing between 1 and 5 days.

Hypotheses related to socio-demographics were upheld only for variables related to ethnicity and marital status. The models demonstrate significant associations between being black and fewer days away from work. Married, partnered and separated aides had significantly more days away from work. Hypothesis related to work-related stressors at the worker level were mainly upheld. Numbers of days away from work were higher for aides with high work demands, low work control, higher effort-reward imbalance, racial discrimination on the job and additional care burdens when not at work. Hypotheses related to high work demands and racial discrimination on the job were upheld in the initial model, but not in the fully specified model. Hypothesis related to "stress buffers" and their role in mediating self-rated health were not upheld. Hypotheses related to work arrangements were partially upheld, with aides reporting good pay and benefits significantly different with regard to days away from work. Hypotheses related to agency characteristics were not upheld. Numbers of day away from work due to occupational injury or illness were not significantly associated with rural/urban setting, non-profit status, type of care provision (i.e., hospice or not), nor chain affiliation.

Overall, these findings suggest the effects of work-related stressors on occupational health when operationalized as “days away from work” are not mediated by work-related stress buffers, work arrangements, or agency characteristics, but that these factors have independent effects on worker health. Work-related stressors at the worker level and socio-demographic factors proved more salient.

*Number of Injuries*

Table 4.6 gives the associations between numbers of work-related injuries and the variables elucidating work-related strains, controlling for demographics.

| **TABLE 4.6 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF NUMBERS OF WORK-RELATED INJURIES (N=3235)** | | | | |
|---|---|---|---|---|
| Dependent Variable: Occupational Health | | | | |
| Number of Work-Related Injuries | | | | |
| Referent group = None | | | | |
| | [2] | | [5] | |
| | One | Two or more | One | Two or more |
| Work-Related Stressors – Worker Level | | | | |
| Work demands | 0.0982* | 0.1255 | 0.0898* | 0.1075 |
| | [0.0404] | [0.0647] | [0.0416] | [0.0664] |
| Low work control | 0.0227 | 0.0301 | 0.0129 | 0.0131 |
| | [0.0188] | [0.0317] | [0.0195] | [0.0333] |
| Effort-Reward Imbalance | 0.1067*** | 0.1708*** | 0.1197*** | 0.1676*** |
| | [0.0249] | [0.0385] | [0.03] | [0.0471] |
| Racial discrimination on the job | 0.4036* | 0.8992*** | 0.3209 | 0.8136** |
| | [0.1700] | [0.2551] | [0.1754] | [0.2684] |
| Additional caregiver burdens outside of work | 0.0747 | 0.1987 | 0.0669 | 0.1955 |
| | [0.0944] | [0.1535] | [0.0962] | [0.1563] |
| Work-Related Stress Buffers –Agency-Level | | | | |
| Hands-on training/ agency based | | | 0.334 | -0.742 |
| | | | [0.2485] | [0.5021] |
| Hands-on training/ offsite training entity | | | 0.4640* | -0.3199 |
| | | | [0.2274] | [0.3904] |
| Classroom training/ agency based | | | 0.3286 | -0.7506 |
| | | | [0.2941] | [0.5652] |
| Classroom training/ offsite training entity | | | 0.0611 | -0.0619 |
| | | | [0.2156] | [0.3034] |
| Mixed training methods / agency based | | | 0.2086 | -0.4845 |

| | | | | |
|---|---|---|---|---|
| | | | [0.1997] | [0.3241] |
| Mixed training methods / offsite training entity | | | 0.2187 | -0.5813* |
| | | | [0.1662] | [0.2535] |
| Supportive supervisor (respect, communication, praise, listens) | | | 0.0382 | 0.0214 |
| | | | [0.0226] | [0.0373] |
| Supportive agency (respect, communication) | | | 0.0122 | -0.0591 |
| | | | [0.0365] | [0.0578] |
| Work Arrangements | | | | |
| 6 months but less than one year | | | 1.5983* | 1.2876 |
| | | | [0.6959] | [1.1949] |
| 1 year but less than 2 years | | | 1.5223* | 0.3027 |
| | | | [0.6452] | [1.2477] |
| 2 to 5 years | | | 1.2953* | 1.4904 |
| | | | [0.6086] | [1.0376] |
| 6 to 10 years | | | 1.615* | 1.4206 |
| | | | [0.6083] | [1.0425] |
| 11 to 20 | | | 1.3317* | 1.2847 |
| | | | [0.6111] | [1.0476] |
| More than 20 years | | | 1.6895** | 1.2168 |
| | | | [0.6227] | [1.0755] |
| Tenure in months at current agency | | | 0.000537 | -0.00019 |
| | | | [0.0009] | [0.0017] |
| Good pay? | | | -0.1047 | -0.2965 |
| | | | [0.1339] | [0.2595] |
| Health insurance coverage through work? | | | 0.2519*** | 0.3893** |
| | | | [0.0667] | [0.1389] |
| Good benefits? | | | 0.0445** | 0.0441 |
| | | | [0.0173] | [0.0301] |

| | | | | |
|---|---|---|---|---|
| Agency Characteristics | | | | |
| Agency Type Hospice | | | 0.4266** | 0.6802* |
| | | | [0.1491] | [0.2762] |
| Agency Type  Home Health and Hospice Mixed | | | 0.3058* | 0.5328* |
| | | | [0.1449] | [0.2727] |
| Metropolitan Statistical Area Metropolitan | | | -0.1057 | 0.1032 |
| | | | [0.1405] | [0.2482] |
| Metropolitan Statistical Area Micropolitan | | | -0.1725 | -0.1257 |
| | | | [0.1351] | [0.2462] |
| Ownership | | | 0.0495 | -0.261 |
| | | | [0.1449] | [0.2671] |
| Chain-affiliation | | | -0.2299 | -0.2855 |
| | | | [0.1475] | [0.2674] |
| Socio-demographic Control Variables | | | | |
| Gender | -0.1701 | -0.7227 | -0.1158 | -0.6881 |
| | [0.1643] | [0.5066] | [0.1683] | [0.5117] |
| Age | -0.00256 | -0.00942 | -0.0062 | -0.0065 |
| | [0.0048] | [0.0084] | [0.0057] | [0.0099] |
| Hispanic | 0.0345 | 0.7572* | -0.0275 | 0.7410* |
| | [0.1039] | [0.3057] | [0.1077] | [0.3118] |
| Black | -0.7284*** | -0.7395** | -0.7093*** | -0.7128** |
| | [0.1594] | [0.2620] | [0.1697] | [0.2827] |
| Other (non-white, non-black) | 0.0439 | 0.2481 | 0.0305 | 0.3383 |
| | [0.1975] | [0.3381] | [0.2028] | [0.3501] |
| Education Level: Less than High School | -0.0256 | -0.3307 | -0.00874 | -0.2665 |
| | [0.1657] | [0.315] | [0.1686] | [0.3211] |
| Education Level: More than High School | 0.0544 | -0.0252 | 0.0934 | -0.0669 |
| | [0.1108] | [0.1915] | [0.1137] | [0.197] |

| | | | | |
|---|---|---|---|---|
| Annual Household Income : up to $20,000 | -0.1703 | 0.2024 | -0.0189 | 0.5323 |
| | [0.1728] | [0.2994] | [0.1808] | [0.3133] |
| Annual Household Income: between $20,000 and $39,999 | -0.0461 | 0.3493 | -0.0174 | 0.4501 |
| | [0.1219] | [0.2201] | [0.1252] | [0.2254] |
| Marital Status: Married | 0.2213 | 0.1718 | 0.1389 | 0.1122 |
| | [0.1962] | [0.3073] | [0.2019] | [0.3178] |
| Living with partner | 0.4298 | -0.3536 | 0.3481 | -0.4059 |
| | [0.2476] | [0.4744] | [0.2526] | [0.4834] |
| Separated | 0.2119 | 0.2869 | 0.1065 | 0.1685 |
| | [0.3316] | [0.5053] | [0.3376] | [0.5211] |
| Divorced | 0.1105 | -0.1599 | -0.0207 | -0.3179 |
| | [0.2209] | [0.3617] | [0.2245] | [0.3698] |
| Widowed | -0.1267 | -0.267 | -0.2063 | -0.2711 |
| | [0.3256] | [0.5564] | [0.3304] | [0.5655] |
| Government Program for Medical (Medicaid)? | 0.0997 | 0.0465 | 0.0627 | 0.0252 |
| | [0.0903] | [0.15] | [0.0922] | [0.1542] |
| Regression Details (n=3235) | | | | |
| Intercept | -2.6791*** | -5.6465*** | -5.8873*** | -7.5589*** |
| | [0.5237] | [1.2315] | [1.1562] | [2.075] |
| Likelihood Ratio | 3528.61 (df = 6E3) | | 3479.59 (df = 6E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

In this model, a unit change in the independent variable predicts either increased or decreased log odds of being in the category of home health aides that experienced one injury or in the category of home health aides who experienced two or more injuries, compared with the referent group who were not injured on the job in the last year, all other variables held constant.

The first group of variables involves work-related stressors at the worker level. Once again, results indicate that, controlling for socio-demographic characteristics, the traditional public health theories derived from both Karasek and Siegrist are mainly upheld. Curiously, though, low work control is not significant. However, compared to those who have no work-related injuries, a one unit increase in work demands is associated with an increased log-odds of being in the group reporting one injury (0.0982, s.d. 0.0404, p. < 0.05). Aides with elevated Effort Reward Imbalance were more likely than those with less Effort-Reward Imbalance to report more injuries than no injuries. Significance was high for both aides with one injury (0.1067, s.d. 0.0249, p. < 0.01) and aides with two or more injuries (0.1708, s.d. 0.0385, p. < 0.01). Home health aides experiencing racial discrimination on the job (vs. those who do not) are more likely to report one injury (0.4036, s.d. 0.1700, p. 0.05) and are also more likely to report two or more injuries (0.8992, s.d. 0.2551, p. < 0.001).

As before, socio-demographic controls included: gender, age ethnicity, education, income, marital status, and participation in government program for medical coverage. Unlike with the first two models presented in this chapter, there were almost no significant demographic controls. However, Hispanic aides (vs. non-Hispanic) were more likely to have experienced two or more injuries in the previous year, than aides with no injuries (0.7572, s.d. 0.3057, p. < 0.05). Black home health aides were less likely than whites to have one injury (-0.7284, s.d. 0.1594, p. < 0.001) and were less likely to have 2 or more injuries (-0.7395, s.d. 0.2620, p. < 0.01).

Overall, the fully specified model retained all findings with the same direction and significance levels. Aides reporting higher work demands were more likely to have one injury than none (0.0898, s.d. 0.0416, p. < 0.05). Aides with elevated effort-reward imbalance were more likely than those without an Effort-Reward imbalance to experience injury than no injury: One injury (0.1197, s.d. 0.0300, p. < 0.001), Two or more injuries (0.1696, s.d. 0.0471, p. < 0.001). Aides who experienced discrimination on the job (vs. aides who do not experience discrimination) were more likely to have two or more injuries than no injuries (0.8136, s.d. 0.2684, p. < 0.01).

In the fully specified model, the groups of variables indicating work-related stress buffers, work arrangements, and agency characteristics were modeled, in addition to socio-demographic controls. Aides working in agencies that offer two types of training were less likely to have injuries than not. Aides who experienced hands on training delivered by an offsite training entity were less likely to have one injury (-0.4640, s.d. 0.2274, p. < 0.05). Aides who experienced mixed training methods delivered by an offsite entity were also less likely to report one injury than none (-0.4845, s.d. 0.2535, p. < 0.05). All aides working more than six months but less than twenty years were more likely to have one injury than none: 6 months or less (1.5983, s.d. 0.6959, p. < 0.05), 1 year but less than 2 years (1.5223, s.d. 0.6452, p. < 0.05), 2 to 5 years (1.2953, s.d. 0.6086, p. < 0.05), 6 to 10 years 1.615, s.d. 0.6083, p. < 0.05), 11 to 20 years (1.3317, s.d. 0.6111, p. < 0.05). Aides who had worked over 20 years were more significantly likely to experience one injury (1.6895, s.d. 0.6227, p. < 0.01).

Benefits are an integral part of any set of work arrangements. Aides who had health insurance coverage through their work (vs. those without) were more likely to report injuries at work than none: One injury (0.2519, s.d. 0.0667, p. < 0.001), Two or more injuries (0.3893, s.d.

0.1389, p. < 0.01). Aides reporting a good benefit package (vs. those without) were more likely to report one injury than none (0.0445, s.d. 0.0173, p. < 0.01).

Aides working at an agency that only offers hospice care (vs. aides not working in an agency that provides no hospice services) were more likely to find themselves in the group of aides who have one injury (0.4266, s.d. 0.1491, p. < 0.01) and also more likely to find themselves in the group that has two injuries (0.6802, s.d. 0.2762, p. < 0.05). Similarly, compared with aides with no work-related injuries, aides that worked in agencies providing both traditional home care and hospice care (vs. aides not working in an agency that provides no hospice services) were more likely to have one injury (0.3058, s.d. 0.1449, p. < 0.05) and two injuries (0.5328, s.d. 0.2727, p. < 0.05) than to have no work-related injuries.

In this final model, none of the socio-demographic controls remain significant except variables related to ethnicity/race. Hispanic aides were more likely than whites to report two or more injuries than none (0.7410, s.d. 0.3118, p. < 0.05). Strikingly, black aides were significantly less likely to report that they were injured on the job (vs. no injury): One injury (-0.7093, s.d. 0.1697, p. < 0.001), Two or more injuries (-0.7128, s.d. 0.2827, p. < 0.01).

Hypotheses related to socio-demographics were upheld only for the variable related to ethnicity. The models demonstrate significant associations between being black and fewer injuries sustained on the job, although the direction of the prediction was surprising. Hypothesis related to work-related stressors at the worker level were mainly upheld. Numbers of injuries were higher for aides with high work demands, higher effort-reward imbalance, and racial discrimination on the job. Hypothesis related to “stress buffers” and their role in mediating the association between worker stressors and numbers of injuries were not upheld. Hypotheses related to work arrangements were mainly upheld, with aides reporting good pay and benefits

significantly less likely to be injured. However, my hypothesis that longer tenure would be associated with lower injury rates was not upheld. In fact, longer tenure was associated with higher numbers of injuries. Hypotheses related to agency characteristics were not upheld, except in the case of hospice care settings where injuries on the job were more significant.

Overall, these findings suggest the effects of work-related stressors on occupational health when operationalized as "numbers of work related injuries in the preceding 12 months" are not associated with work-related stress buffers, work arrangements, or agency characteristics, but that these factors have independent effects on worker health. Work-related stressors at the worker level and socio-demographic factors proved more salient. These models emphasize the influence of ethnicity and a few select circumstances such as when the worker has access to better pay and adequate benefits. Models confirm original theories and emphasize mediating influences of socio-demographics. Model effects also indicate higher probability of injury for aides with very short or very long tenure. The delivery of training off-site seems to mediate injury rates. Findings present counter-intuitive results. While aides who experience discrimination on the job experience more injuries, African-American aides were significantly less likely be injured on the job. This is likely due to under-reporting. From other literature, we know that it unlikely that African-Americans experience safer work conditions, but more likely that African-American women feel pressured to conceal work-related health problems for fear of losing their jobs more than other ethnicities.

Reviewing non-significant findings may be useful for understanding future research directions. For example, for profit vs. not for profit and or chain affiliation seems not to matter. This may be demonstrating that state regulations and Medicare regulations may tend to dictate the tasks, activities and operations. Also, many of these agencies have histories that precede

current business configurations as they have navigated their organizational development in a changing healthcare landscape.

## SUMMARY

Occupational safety and health is difficult to precisely define. When taken together numbers of injuries, days missing work and general self-reported health can combine to give an overall sense of the protection or lack of protection experienced by workers. These three multinomial regression models attempt to provide an examination of work-related stressors as predictors for occupational health and general health. In general, these models upheld traditional models positing that high work demand in the absence of work control will result in poorer health especially when taking into consideration workplace support. In addition, the Effort-Reward Imbalance model was even more strongly supported. Potential predictors based on Stress Process Models, including agency-level factors, were added specifically to provide socially structured contexts moving beyond workplace organization. These included work-related stress buffers at the agency live, work arrangements, and agency characteristics. The models paid careful attention to socio-demographics known to be connected to health to control for these important predictors and to explore their potential influence.

Becoming injured or ill on the job is distinctly different from experiencing work absence. When and how an injured worker recovers and experiences a functional ability to “return-to-work” is a complex phenomenon. This process is influenced by injury type, injury severity, access to occupational health services, discrimination, and employer policy, to name a few major factors. Supervisors play a crucial role and there is often tension between providing real support for the worker in terms of connecting them the medical care and workers’ compensation benefits

needed versus the pressure to get the worker back to work in a manner productive for employer goals. These findings demonstrate that even though numbers of injuries and work absence are connected, they function differently when modeled uniformly.

Core findings persist across all five specifications of each of the three multinomial logistic regression models, indicating stability of the work-related stressor variables based on well-established theoretical models. Central findings also persist in all three constructions of health (occupational and general). Work demands, low work control and effort-reward imbalance were negatively associated with health, as expected. Results suggest that those with additional care burdens may be at elevated risk of occupational injury or illness.

Significant findings around socio-demographics related to age, income levels, and marital status were more common in the model exploring self-rated health than in models measuring occupational health. However, findings related to occupational health demonstrated a significantly negative association with health when aides reported racial discrimination on the job, while at the same time; findings suggest that blacks were less likely to be injured. These results raise questions about under-reporting of occupational injuries among low-income minorities. Additionally, the results raise concern that the role of racial discrimination in fostering conditions for increased injury, illness and death, especially against Black Americans is likely underappreciated.

Findings suggest that many agency-level factors are not functioning as a buffer to prevent negative health outcomes nor are they exacerbating the health effects of work-related stressors as much as I predicted. The few times when significant differences in health outcomes resulted, such as when they relate to health care coverage, benefits, tenure, type of training or agency type require more investigation to isolate the factors involved in those associations further.

# CHAPTER 5

## HOME HEALTH AIDES - VOICES OF EXPERIENCE

Home health aides (n=25) gave in-depth interviews in Upstate New York certified home health care agencies (n=9) in the summer of 2016. Each of the nine agencies supplied and arranged for home health aides to be interviewed on site and the aides were all paid their usual hourly rates to participate in addition to receiving a $25 gift card incentive. With home care workers in this convenience sample, I conducted semi-structured interviews in order to capture details about work conditions, training experiences, potential sources of work-related stress, physical health, mental health and occupational health.

Most interviews were one hour, but a few were either ten minutes less or more than one hour. All interviews were recorded, transcribed and analyzed. On average, these aides were highly experienced. More than 50% of the aides had more than ten years' experience and 20% had more than 20 years' experience. Furthermore, several aides had worked in skilled nursing facilities in the capacity of a certified nursing assistant (CNA) for some number of years before gravitating to home care settings.

Designed to bring participants through the discussion in one hour, the interviews began with home health care workers sharing their work history and their thought processes in selecting this work. In addition, detailed questions about the specifics of their work provided details about their daily working lives. Although these aides were quite loyal to their "higher ups" and reticent to speak badly of their agency, they were open and forthcoming about difficult conditions. They spoke freely about health problems, interpersonal problems with clients and other problems with conceptual relevance to the study. Home health aides cooperated with a sincere desire to bring out and solve issues for the betterment of their circumstances.

# RESULTS

The central focus of this study is the relationship between work-related stress and health in general and occupational health more specifically. Since the qualitative results elaborated upon these themes while also diverging to new but related themes, and I report both types of findings using the same organizational structure, but discussing results related to socio-demographics and work arrangements first, followed by results connected more directly to work-related stressors.

1. Socio-Demographics
2. Work Arrangements
3. Work-Related Stressors – Worker Level
4. Work-Related Stress Buffers – Agency-Level
5. Agency Characteristics

## Socio-Demographics

### *Descriptive Characteristics (n=25)*

Only one aide was male, and the remaining twenty-four were females. Among the female aides, thirteen were white, five were black, five were Latina, and two were of mixed ethnicity. Five were immigrants, while those remaining were born in the U.S. Fourteen were married or partnered, four were divorced, one was separated, and seven indicated only that they were single. Aides were from 27 to 78 years of age, with an average age of 48 (M = 48.36, S.D. 12.7589). The median age was 49. Pseudonyms have replaced real names. Pay ranged from $10.75 to $18.75 with most pay rates falling between $10 and $14 per hour.

## Work Arrangements

Work arrangements are usually defined as the agreement between employer and employee about the details of the work to include: what the work requires, what hours will be kept, the location, the pay rate and specific work conditions and other details. Whether all details are spelled out in writing or not, there is a formal agreement and an official employment relationship is established. For this section of this chapter, I apply a wide definition to include what skills home health care workers generally bring to their work and what conditions employers provide. In this case, the employer is the certified home health care agency and the employee is a home health aide. Covering the work environment of the home health aide, this section also explores how work conditions are connected to the health of home health aides and their insights about staying healthy on the job.

### *Skilled Work*

The scope of work as defined by the New York State training manual is clear. Home health aides do the most basic and supposedly unskilled work of any health care professional. They are disallowed from doing anything that a nurse is trained and certified to carry out. They are not to make medical decisions, pass medication, or assess health. They are to engage in the basic care and report observations to the nurse. While this is what takes place routinely, the art and method of engaging in home care work is far more nuanced than these definitions would portray. Much like a social worker, they must assess and cope with a wide array of environmental, family, and other social issues in the milieu. They also must learn the patient's preferences and walk alongside them in a very real sense through the difficulties of their illness, disability or even their eventual death.

*Many new health aides don't understand the art of finesse. You have to ease the patients into the fact of your presence in their home. (Margaret)*

*The care plan is in place, but every person is different. They like routines. They explain to us how they like it and if we see it's safe, we keep it. And we try to do things in the way that they prefer. The person gets used to me and needs me. We are their lifeline. Some of them are afraid because they have fallen, but I gain their respect. I say, "We are going to do it." I am guiding them through their transferring. They learn something new. We are not so stressed. And I understand. When we finish, it's a triumph and we say, "That was easy!" (Dolores)*

*I start with baby steps. I say, "Let me just come in and we'll sit and talk." After we are talking, I'll ask them if they are hungry and I'll suggest some food. I'll just do a little lotion. But, it depends on the person. With Alzheimer's though you can't be wishy washy. You have to be more directive. Being calm and not being pushy works. We want to have those bonds. I know as much as I can know....even down to the details of how they want the towels folded, and how they take their coffee. And the family may not even know as much as I know. (Esther)*

*It's important when you go shopping to get them their brand. They cannot do it now, so I want them to get what they want. Say they want that mint chocolate chip ice cream, don't get them vanilla!*

*I have had some difficult cases because the agency knows I can draw them out. You have to reassure them. We do have a rule here that if something is not done and the patient needs something done, we are allowed to stay longer. We are there for the patient. You stay and help them get up. The office will support you. We don't just do our job; we carry out all the other health care team members' directions. We are the eyes, ears and hands. But, the majority of my people don't even have those various therapies. We see their skin. We see their changes. We are the foundations. (Jane)*

As home health aide, Diane, reported, the occupation is truly a profession that encompasses an art form and a mission. Many aides believe they bring communication skills, education, and experience to bear with each case. They endeavor to bring the best quality of life to the patient by striving to improve their environment, their nutrition, their hygiene and to lift their spirit in respectful ways that enhance dignity and add humor.

> *For me this work is really about going in and really trying to talk to these people. They are all depressed. They are just home all the time. They can hardly walk. So I go in there and talk to them and let them get it all out and off their chest. We are part psychologist. We let them talk out all their problems.*
>
> *And they are frustrated that they can't help their kids. They worry about their families, themselves, and they worry about the world. They watch a lot of TV. They don't have anybody to talk to in a lot of cases.*
>
> *Their daughters don't stay for long periods. They are working. I am the person they have to talk to. They don't get to talk to people or to talk to people their age. Sometimes they are on the phone all the time. It's hard for the people to navigate this themselves. To try to figure out what living situation they should be. (Kelly)*

One of their hallmark sayings is that "the aides are the eyes and ears of the health care team." As they struggle to gain respect from the nurses on the case and from the community because both see them as "just an aide" with an associated stigma, they establish and provide ongoing evaluation of the patients' daily regimens, while keeping guard over them. They will be the first to notice changes since they become so intimately aware of their patients.

> *I feel that the family really does want us there. One day my client's breathing was getting much worse. So I called the daughter directly and I spoke with her directly saying that I didn't think the weight she was gaining was from eating but it was*

> *from retaining fluid. I said she needs to go to the doctor. I told her daughter that I was going to let the nurse know and everything because I had noticed two over just a couple of days she'd gained like three or four pounds in her foot and I could tell she had edema. She was diagnosed with congestive heart failure and she was put on pills and she is better now. I was the first to notice her changes. Some people think that the nurse could do something but the only thing the nurse can really do is tell her daughter to take her to the doctor. She can't diagnose or treat. The doctor must do that. (Beatrice)*

Home health care workers, most of the time, perform the role of a confidante. This role is very reminiscent of a counselor or other more highly trained mental health professional.

> *They talk about what they used to do years ago, their family members and how they have disappointed them. They talk about when they were raised or when they were married. You just listen, even if they told you this story before. They want someone to talk to. They are there alone. They can only talk when someone comes there. They can make phone calls but other people don't give the time.*
>
> *There have been things they have held in for years. They need to get it out. It is healing to them. You just let them talk. Older generations are very private people, but in those personal moments, I have had quite a few women tell me about abusive fathers, brothers or husbands. Just being able to talk is better medicine than getting on some drug. (Laurie)*

Home health care workers that I spoke with in these interviews tended to pride themselves on being non-judgmental and empathetic as they go about creating these bonds and keeping them strong. They believe they should cater to the patient's preferences and that this means they must put their own personal thoughts about things aside and learn their new client's needs and wants.

*I can adapt to anyone. (Eileen)*

As home care workers strive to make overall health better, they expend the types of energies reminiscent of any of the caring professions. They develop their cases and often bring strong interpersonal skill and hands on "know how" to the scene. This is evident in the way Jane describes her role in the life of a patient with advancing Multiple Sclerosis.

*An example is a current case. He was a coach and great person and the wife did her little part-time job but mainly raised the kids. And they are great kids. He has MS and MS is a slow deterioration. I have seen him go downhill. How can you not get attached? As the time progressed, one arm was painful on one day, but sometimes it was the other arm. Sometimes it was the fingers. So, because I was there frequently, I learned what makes him comfortable. I know he likes to put his hand on his hip before we turn him. It makes him feel better. So that little something makes him feel better. He grabs his hip. Then I turn him. We do the same things every day. He knows I am coming. He loves to tell me stories. While I am doing his bed bath, I am in a full-on conversation about his flying in the war or his coaching a team. (Jane)*

Finally, home health aides spend time learning the specifics around complicated conditions with complex regiments. They help patients cope with a long list of serious health issues including serious heart conditions, breathing issues, wounds, neurological dysfunction, kidney disease, and cancer. They must also be familiar with the aging process and co-morbid psychological problems, such as depression and anxiety.

*I've frequently worked with Alzheimer's patients. The facility was just Alzheimer's. That is not the easiest job because you never know what they're going to come up with next. The most important thing about Alzheimer's is to learn how to talk to them. I have never met an Alzheimer's patient that was not mean, one way or another - physically, verbally or mentally. An example: There was one client that I just didn't know how to take. I went to the store for her and*

> *she was very picky. She had to have it exactly right. I got used to her yelling at me. And I learned that unless it is written specifically on the grocery, I would call her. You don't just get a substitute. You learn that over time. Then it becomes less stressful. Now we became good friends and we talk a lot and she doesn't want anyone else now. You learn by your mistakes. She was older, but in the end she was a sweetheart, but she just wanted her way. (Jane)*

*Wages and Hours*

Ten respondents were working either part-time or per diem and the rest were working full-time. One aide reported working over 80 hours. Figure 5.1 displays figures for the rate of pay reported by those being interviewed. Pay for the 25 interviewees working at various agencies in upstate New York ranged from $10.50 to $18.75 per hour with a mean of $13.05 with a standard deviation of $2.16. The median wage rate was $12.79 per hour with the grand majority (80%) making less than $14 per hour. The few home health aides making more than $16 per hour were LPNs that had been grandfathered into the organizations having served since the days of the Lombardi Program (a long-term home health care program that used Medicaid waivers to create "nursing homes without walls" to reduce unwanted institutionalization by providing coordinated case management). That program had made extensive use of LPNs for its long-term home care delivery model.

Home health care workers in Upstate New York are usually offered per diem rates or part time work and they usually must build their case loads up so that they are working up to the number of hours they prefer. Most home health care aides are in a perpetual state of acquiring new cases as client/patients either recover or die. Due to the erratic nature of the cases, aides have difficulty achieving and maintaining the hours they hope to be working. For many aides, their daily client load varies greatly from day to day and this is their chief complaint – that they work is not steady and definitely not as steady as promised before undertaking the training. The

part-time aide may see between one and four clients in a day. They are assigned a patient who has been established by the CHHA or the LHCSA. The care plan is established for the patient by the physician and agencies adhere to the prescribed number of hours of care for each patient. These hours vary based sometimes on client needs, but more often by a combination of what reimbursements can be obtained from insurance or what the doctor specifically orders if the patient is paying privately. Between visits, clients are generally able to maintain their care on their own or with assistance from relatives. Physician orders, case establishment and care plans are quite uniform across New York State due to Department of Health regulation and oversight.

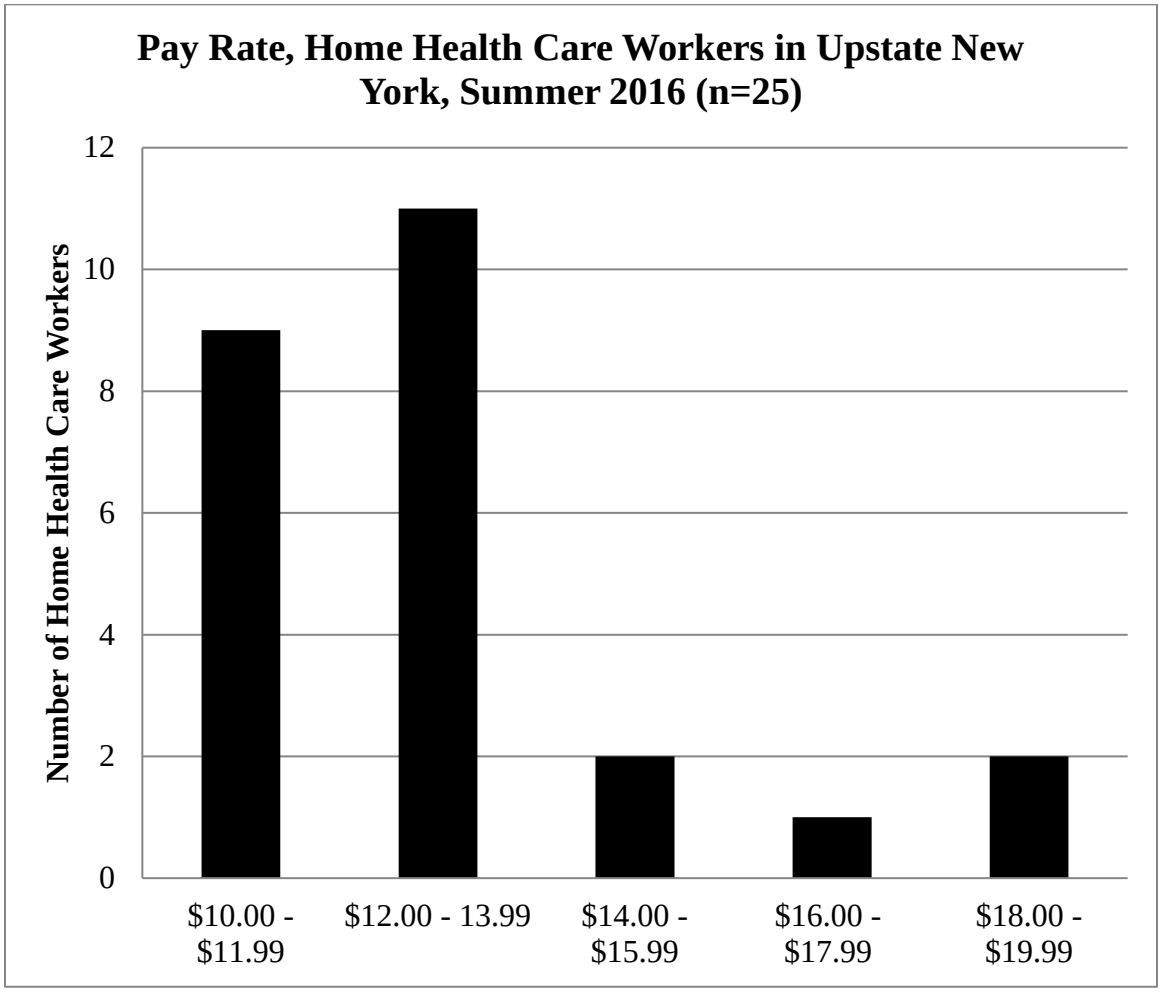



Figure 5.1

Most reported that they had recently received a raise due to pressures the agency was experiencing because recent NYS legislation raised the minimum wage for fast food workers. Consequently, agencies began hiking pay rates in an attempt to prevent workers from leaving for better pay and less precarious hours in the fast food industry. Also, the NYS legislation introduced mandatory incremental minimum wage increases to $12.50 in Upstate New York, so agencies were responding with higher rates to stay competitive within their own industry and with other low-wage industries.

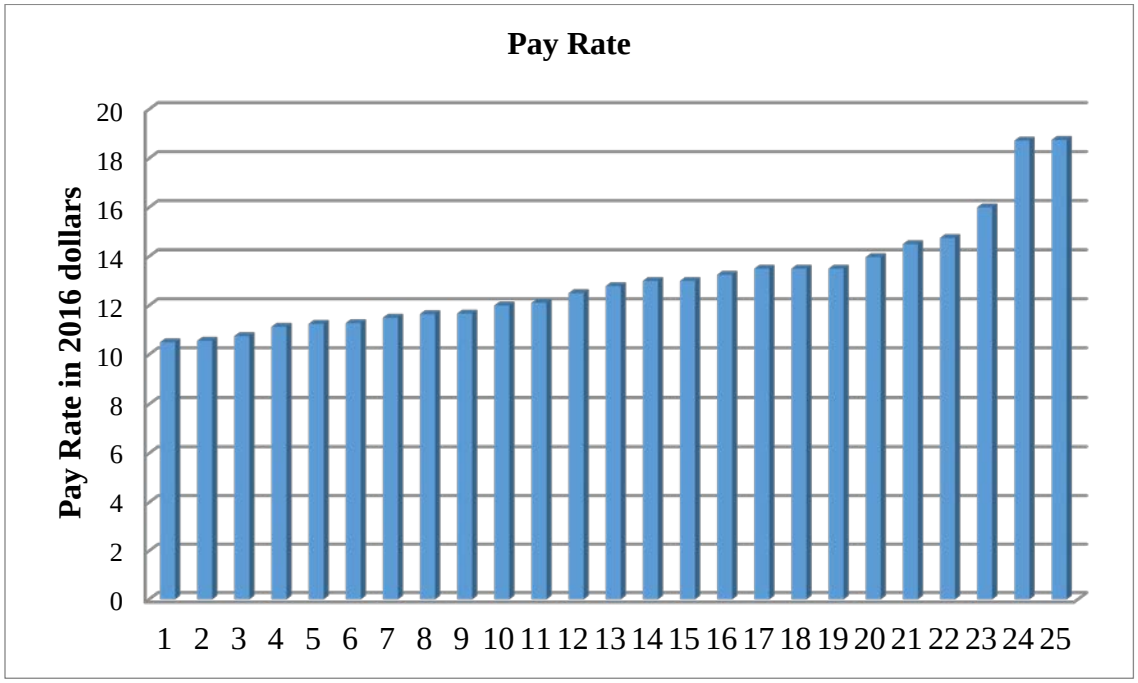
> *Right now I'm making 12.79 per hour. It's a slow process to go up. I have been working 25 years and I'm only making $12.79 per hour. I do have other work. I have a different job. [hedging here.... stammering, she is not actually permitted to have other work] This is my main source of income but I do other things to supplement it. I know the new people coming in now starting at $12.50. That puts me in a little bit of a tailspin because after all these years, $12.79 is all I make. (Francine)*

Figure 5.2 compares home health care worker pay rates in order with their years of experience in ranked order.

**Comparison of Pay Rate and Years' Experience**

**Ranked Order for Home Health Care Workers in Upstate New York**

**Summer 2016 (n=25)**



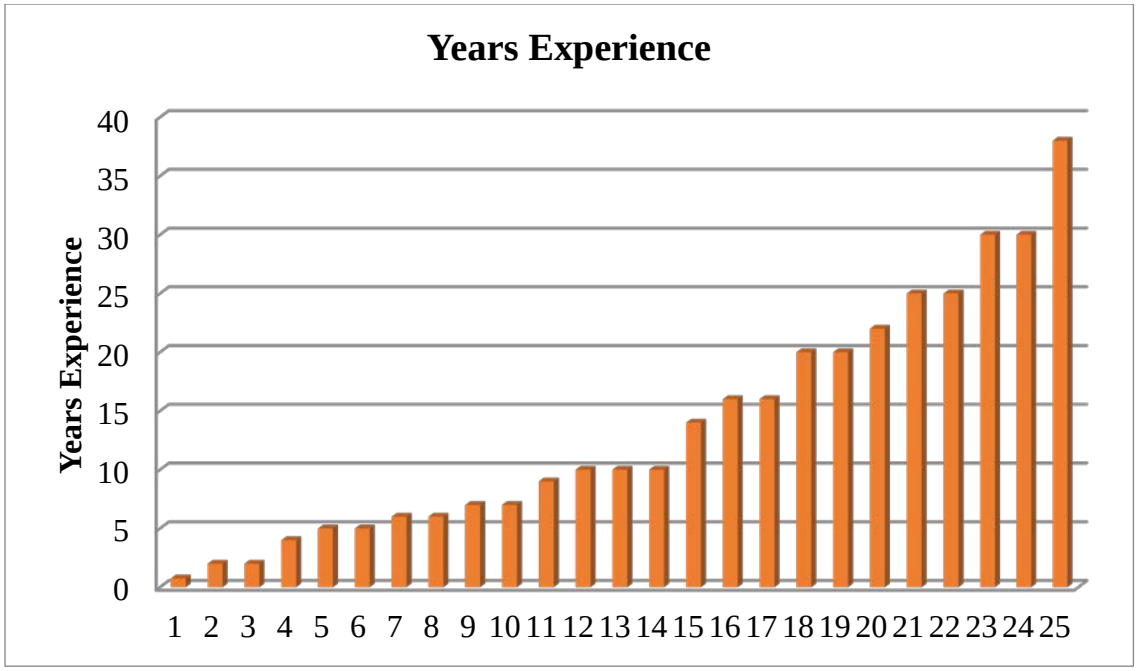




Figure 5.2

Given the levels of experience persisting in this sample, this flat pay rate hardly expresses the experience levels and years in service that home health care workers have given. Pay rates are not commensurate with experience levels or tenure in the field. In addition, about 20% come from skilled nursing facilities, bringing experience as a CNA in those setting, but which is not reflected in these numbers. So, in effect, their health care experience levels are understated.

Home health care workers commented frequently about their wages and hours. They registered their overarching dissatisfaction with their low rate of pay. After that, they were most frequently concerned with the inconsistency of hours, and how tenure is not rewarded in pay rates. Aides expressed frustration about mileage reimbursement methods. Aides expressed frustration when assigned office work to make up for hours missed during times when there is a low client census.

Home Health Care Workers Selected Comments about Wages and Hours

| | |
|---|---|
| *Diane* | *I feel we are underpaid. And I know we are underpaid. Because the profession is a profession and it's not just a job. It's an art form, a mission, and a profession. With all that we manifest to do the prescribed duties that we are given for each and every single patient, I feel that I pool all my soul, my knowledge, my professionalism, my positive and negative experience and all of my education into each and every case that I am assigned.* |
| *Monika* | *Another thing that I don't really appreciate about being thrown around. My hours are getting cut here and there and if you were to work a different job we wouldn't have that problem. If we were to make money at one job, we would not have to get a second job or third job. Then we would not be burning ourselves out at all these jobs. We should be paid for what we are doing. We should be paid $17 an hour. Because we do a lot. We are sometimes doing wound care and handling insulin issues.*<br><br>*Often there but promises there to get 40 hours a week and then when they actually get here they get 30 hours or 20 and then they're upset because it's not fair and then they quit. They were promised something to get them in the door. Then after that they're not given the hours is not come through. I was promised 40 hours a week but then I only got 20 hours so there is a communication barrier.* |
| *Charlene* | *The only thing about the agency that I'm not happy about is the hours. I'm upset because I call the coordinator I said you know is it really worth $11.13 to go somewhere for two hours in one day considering the time I drive and spend -- it's really not worth it. And some people only got 12 hours this week.* |

| | |
|---|---|
| *Beth* | *If there is a high demand for home health aides, then the only logical way that they can get people to do this is that they have to make it rewarding in some way. And I'm sorry, but not many people are going to be happy with going in and taking care of people every day and just getting emotional reward for doing that. There are going to have to be a paycheck to back that up. We also need benefits* |
| *Victoria* | *We did get mileage but we don't get paid from our house to the client but one that was one hour away they did pay that one that was a bit much. I don't like to argue and I don't like to fight but I eventually tell them that if the roads are bad and going to be calling in because I have rolled my car twice.* |
| *Kelly* | *The workloads fluctuate so much. Their service ends or they go to a nursing home and I get less hours and it affects my finances. We can hope for 30 hours and yet it changes. My husband works. If you go you get paid for one hour. It's going to get worse. We don't have enough aides to do what we are doing. We are having a tough time keeping aides.* |
| *Stephanie* | *I am full time, but sometimes it is normal for the census to be low. This is the main office but some of the girls live far away and they don't travel all the way down here. They want us to come into the office to fill in the time. We want to be out in the field. Cleaning the office and stocking the files is not our job and they have to find something for us to do. We can do in-service training or use our vacation or personal time, so that we can stay at 76+ hours every two weeks.* |
| *Doris* | *So now they are taking miles away from us. If I don't go the way they say, they take away payment for those miles. You sometimes go a different way for a good reason. To avoid bad roads. Back roads that don't even exist. There are seasonal roads. There are dangerous areas. So they are taking our miles away. Sometimes going around is quicker depending on traffic.* |
| *Laurie* | *I need hours, first of all. 40 hours. You can be guaranteed and you have to take what they give you. If you are not guaranteed, then there is more flexibility. I don't need much flexibility. I worry that I might need the flexibility. I need 40 hours plus. I don't really get that. Mostly I work 35 or 36. It's up and down. The funny thing is that you can't get overtime here. Say you have a bill, you can't get overtime. So you are robbing Peter to pay Paul.* |

*Benefits*

Aides reported wide variation in the availability of benefits with no uniformity present in the sample. When aides were asked if they have health benefits that come with their employment - most said yes, but that they do not use them because their husband has health benefits through his workplace. Others took advantage of the health benefits, though they were expensive. Some remarked that no health benefits were available, but others were able to take paid sick days. A

few had paid time off, but most did not have paid vacations. A few had a more robust benefits package including health insurance offered at a decent price and a 401K investment for retirement. There was wide variation between agencies and benefits associated with full time work were usually offered to more of a select few full time workers.

> *We don't get much vacation. Once in a while if I wanted to do something I'll take the time off but the three day weekends. (Beatrice)*

Some remarked that they would simply continue to work under private arrangements, but that they are unable to secure health benefits through those arrangements, so they come to work for the agency. Some agencies offer benefits packages for both full- and part-timers, while others only offer the benefit for those relatively fewer home health aides who are holding full-time positions. Those being interviewed found their pay too low to cope with the disproportionately high medical insurance premiums high.

> *I have to pay $248 per week (Hilda)*

> *The benefits are very expensive. So even for me to get the health insurance through the company because I am working part time, it's more than half my paycheck every two weeks. So I'll have to figure out another way. I use the Obama Care New York State health care because I can't afford any other way. (Kelly)*

*Work Conditions*

Work conditions reported by this group of home health care workers included working in a four-season climate in many impoverished neighborhoods that posed challenges and serious occupational health risks. Home health care workers feel very strongly that they simply must

endure difficult conditions in order to fulfill their primary obligation to carry out the most basic, necessary and life sustaining health care tasks.

> *The living conditions are bad. Not all the clients you have are like this, but it is not a pleasant environment all together. You just shake your head! Some of them live in it and they could do better but they don't. They have been living in that all their lives. You can't go in there and change everything. Each client is different. You have to have an open mind going in. You can't let the bother you. Number one, you didn't go in to change their way of living. Some will, but you don't let that get to you. You are going in there to take care of that client. That is your first obligation. Everything else is secondary. (Fred)*

> *Many patients are very ill. And they are not able to clean their own house and unable to wash themselves. We have to understand that and not get disgusted, or angry. When I go I clean. If it's really filthy and dirty with personal filth, fecal matter, cat dander, or mold I will put the mask on and the gloves. I will make their living space a little better for them. It's not just for me. It is for them. (Diane)*

*The Home Health Care Workers' Occupational Health*

Because I was speaking with aides who had so much experience, it was natural to ask them about the longer-term health impacts of doing their job. Most reported that they were simply in excellent health themselves and intended to carry on this work well past retirement or until they cannot do it anymore. But, others were concerned about their weight, cardiovascular health, basic exhaustion and the potential for musculoskeletal pain and injury. Aides observed that anyone with health problems do not usually continue to work as a home health aide. As a consequence, any study related to the occupational health of home health aides would demonstrate the "healthy worker effect."

> *If I had major health issues I wouldn't be able to stick this out. You got to be healthy in order to be able to be any good to your clients. If it ever came to that I think I would say enough is enough. And then I would stop and tend to my own health. (Emma)*

Home health care work is physically and emotionally exhausting due to unpredictable home environments, complexity of patient care routines, and precarious work arrangements; However, aides also report a significant amount of time is spent on the road – driving in unfamiliar territory, dealing with winter driving conditions, or the basic hassle of being on-time for patient visits while coping with traffic.

> *I am not sure how this work will impact my health over the long haul. I do find myself getting tired. A lot of these women have back problems, but I had to lift a lot in my other job and I learned how to protect my back. Mentally I am okay. I get sad, of course, when a patient dies. I miss that person, but I understand it was time. (Stephanie)*

Workers worry about times when increased caregiver burdens emerge in their lives and they frequently recognize that working long hours is connected to work-related health consequences, including weight gain and hypertension. They see themselves as nurturers of others who tend not to prioritize their own health.

> *I am sure it already has because I have high blood pressure, because of all the hours I work. And you tend to put yourself aside sometimes. I'm a natural nurturer, a natural caregiver. Taking care of myself is placed aside. Recently, I got within a couple of pounds I never wanted to see on the scale. So I had to lose 30 pounds. The last few years have been very hard. I've had a lot of things going on in my life. In 2014 there were five deaths in my dad's family starting with my*

> *dad from April through December. And the preceding year and a half my dad was in and out of the hospital. (Hilda)*

*Hurt on the Job*

Injury rates for the sample were striking. Twelve of the twenty-five interviewees had sustained injuries on the job. The rate of injury was not different for those who had more experience. There were 15 total injuries reported with two people reporting two separate injuries. There were four instances of work place violence resulting in two serious injuries and two persons suffered consequential mental health concerns.

> *And I have been hit a few times and pushed down the stairs. I've been bruised. I had a cracked rib. Two or three times I have been assaulted by a dementia patient. And that caused physical harm. And it became workers comp case twice. Those health problems were immediately addressed. We have an excellent manager here who handles those things. One time I didn't realize I was badly injured. And that's still being worked on. I do still have an effect from that. I have to go see a doctor again about it. The second time I had a workers comp case I was pushed down a flight of stairs by a dementia type patient. Those things happen. The patient evidently has a problem. (Diane)*

There were two needle stick injuries resulting in aides having to undergo laboratory testing protocols to ensure that blood borne pathogens were not introduced.

> *Every few months I had to get a blood test. Because it wasn't even the patient's needle, it was the husbands. And he would not release his records, so I had to go for blood tests every two months all year to make sure that I didn't have anything. It was a pain. I wasn't worried about it, but you have this three day window where you have to get your blood worked Don. I drag my kids to the place. It was regular blood work. (Nina)*

> *Last year I had a needle stick injuries. It was a used lancet that was among her trash on her desk. I was freaking out on the inside and of course it was on the weekend. And I didn't know the protocol. They got back to me and I had a whole load of high priority cases. I went to the hospital. It had been 20 hours. They had no access to the medical records. The doctor would not give the information. I took the hepatitis medicine and then for 6-8 months I was tested for hepatitis and AIDS. We had the training, but in that situation it was a drama I didn't need. Even the on call nurse was unsure. When I returned I asked for a debrief. But, they didn't really respond to that. They said, no. I wanted to write a policy of what the steps to do. (Esther)*

One aide reported suffering a dog bite in the home. One aide fractured her hip on the job. Another sustained a joint injury requiring surgery. Once recovered, she had another accident on the job, with a second serious injury. There was two falls from slipping (black ice, wet leaves) with resulting injuries - one that forced days away from work and in the other case, the aide was immediately back to work.

> *I was taken to the hospital by ambulance so it was a clear work related injury. But I only missed one day of work because I didn't want to sit home. I was very sore but I didn't think I would get better by sitting home. So I just kept going. (Beatrice)*

In another case, the aide had surgery and was out of work for two years. She had worried that the agency wouldn't be able to accommodate her work restriction imposed by her doctor. It was inadvisable for her to lift over 25 pounds. However, this restriction was accommodated and she found it was not that difficult to accomplish since safe patient handling techniques are effective in training aides to avoid heavy lifting.

> *In 2014, I went out with my shoulder and I was out for two years almost and came back. I had a lot of problems with my shoulder I have had a couple of surgeries and it still isn't completely right but it's a lot better. It is a workers' compensation case because I slipped on wet leaves at a client's home. So they don't send me to do any difficult cases. They did not have a problem arranging the work for me. You know you're the only one in the home so I thought they would have a problem but they gave me no problem. (Victoria)*

There were two aides that complained of exhaustion and one of those included chronic low back pain that she attributes to her work and treats at home each day with self-help remedies and over the counter pain medication.

> *I haven't been hurt, but I feel it! Sometimes you do get sore, but not enough to go to the doctor. I put the heating pad on my lower back. I take ibuprophen every single day. I only go to a chiropractor. He does adjustments. I would be worse if I wasn't going to him. I have been going to him for a couple of years now. I go on maintenance. Once per week. I sometimes have deep muscle pain. He is not a massage type. My insurance doesn't cover it, but it would be even more out of pocket. So I just pay. I think some of my back pain is related to my work. It's every day. Traffic, getting from place to place, working with the clients, doing everything they want you to do. I worry about this low back pain very much. (Kelly)*

In most cases, the aides filed workers compensations claims and were supported by their employers through the process. But in two cases, the aides were afraid to utilize workers' compensation for either wages lost or payment for health care services. In one case, an agency merger created heightened fears about losing her job, preventing her from seeking appropriate occupational health coverage for her work-related health problem.

*Staying Healthy at Work*

Given that home health care workers are interested in health, it makes sense that they demonstrate interest in ideas about staying healthy while working. They also demonstrate compliance with occupational health and safety measures to maintain work-related health. Interviewees were quite forthcoming about strategies they use for keeping safe at work. They even understood the proper refusal of dangerous work, the importance of understanding personal physical limitations, and how to avoid contact with sharps.

Some aides report that they are pressured to work sick so that they do not lose pay or status within the minds of the schedulers. Accepting work frequently earns brownie points with schedulers who like to find aides cooperative when needing to assign unexpected work or make schedule changes.

> *Clients leave lancets in their beds and not everyone understands the risks that we take. Any person that we are working with may have a disease in the blood and we may not be able to know about that because the nurse can't tell us. We are supposed to be using universal precautions. (Sharon)*

> *The Hoyer Lift was embraced because it was saving our backs! The home health aide situation was better than the nursing home. They didn't even have them in the nursing homes (Kelly)*

> *I can't stand going into someone's house that their lifestyle is to smoke pot. They are getting high and using whatever other drugs. Most of those people are quite psychotic. And they are a danger to us. I can't walk into that environment of smoke and marijuana because it breaks me out and it makes my glands swell up. It makes my eyes tear and it makes me smack to even smell that stuff. If I ever had to go to the patient's house like that, even if I'm in the other room and I have to leave and I call the office immediately. Because that's my health. (Diane)*

> *It can be physically stressful, but at the same time you need to know your own physical limitations and not cross them. And if you do get into a situation where you're going to have problems with that, then you have to have the common sense to know when to ask for help, or flat out tell them that you cannot do that. I am in that situation right now. The client doesn't want me to get hurt. I don't want to get hurt. And we must realize we have physical limitations. (Beth)*

Several experienced aides spoke about maintaining mental health in terms of avoiding burnout and creating work and non-work boundaries.

> *Mentally it's fine. Generally I am not a worry warrior. (Doris)*

> *You do what you can while you are there and the rest of it you let go or you tell someone about it. Some of these girls take it home. They haven't learned yet. Some will never be able to let the emotions go. They will burn themselves out. The job will burn them out eventually. (Margaret)*

A few of the aides described how their work motivates their own health. They hope to avoid the bad health outcomes they observe in their clients. They want to avoid deficits in both physical health and in social relations, gaining wisdom from observing client circumstances.

> *Being in this field for so many years and seeing how the patients who smoke end up and none how they don't have good health at all I will say that their eating habits are bad as well and you could see how it impacts their health that impacts my health so much because I want the healthier side went up with them was younger I used to smoke but then I saw COPD patients and I said I don't want to end up like that. I don't want to do this my body so I stopped smoking. And I watch what I eat now, because diet affects the heart and quality of life. So being in the field helps me to improve my life. (Marisol)*

## Work-Related Stressors – Worker Level

### *Karasek's Theory and Work Demand*

Home health aides answered questions designed to elicit deeper understanding of the Karasek model that posits that work-related stress is comprised of high demands, low control and weak workplace support. The general consensus was that there was not huge pressure on the home health aides to work in a rushed manner and that the supervisors supported the aides in their own decision making in conducting the care plan. When asked about work demands and supervisor support, most aides were very reticent to complain. But, with some probing they would discuss how the care plan reduces stress because it dictates the work and they do not have to make decisions about patient care. Tasks are generally very basic and, individually, they not usually taxing to perform. Aides that did offer strong comments about work demands were quick to draw immediate contrasts with skilled nursing facilities, characterizing them as far more demanding on the CNAs relative to the demands found in the certified home health agency.

> *I don't feel pressured by the agency or by anyone. Because it just takes as long as it takes. If it takes your whole time to the personal care you don't cut corners. So you do the care. (Francine)*

Not all aides agree that work demands are low. Driving is a frequent frustration. Home health aides use their own cars and are compensated for mileage. But, these cars are older and difficult to maintain. So aides often request less driving, while at the same time they derive pleasure from more extended time with patients.

> *I would like to see it change to less driving. I would like to see one or two people for 4 hours each. In 1.5 hours, we have to be fast. There is too much to do. And it would be less driving. (Inez)*

> *I like the two hours better than the one hour. I try to do the same thing I do in the two hour in the one hour. So I am working quicker in the one hour. But I want them clean, fed, and tidy in one hour. (Dolores)*

Home health aides are concerned about short staffing because it tends to create an ongoing and constant problem of high work demands.

> *You aren't really getting the quality if you are cramming a bunch of people on your schedule trying to get people done. They say that we are contracting to a lot more agencies and they're a lot more different types of insurance now. But I really think we would do better if we hired more to spread the work load out. I am quite sure every girl would say that because we have to work overtime. If someone is on vacation and someone else is sick, then you have to work overtime. You are pressured to work overtime. It could complain but I try not to build up any confrontation in my work. But hiring more would provide coverage for when someone is out. Short staffing is stressing us out. (Nancy)*

*Siegrist's Theory and Meaningful Work*

Of interest is the idea that one feature of many low-wage jobs is the monotonous and unfulfilling nature of the work being undertaken. Usually this is the result of the job being very boring or that the work itself is unseen or marginalized by society at large. Flipping burgers, bagging groceries, stocking shelves, cleaning floors – generally are not thought to be interesting, meaningful work. By contrast, the work of a home health aide has high potential to bring engagement, job satisfaction, and the general sense that the worker is making an essential difference in the life of another person. Workers engage in this work because they love it. They enjoy making people feel better each day as they cope with illness, disability or even impending death. These intrinsic rewards help create a balance between the effort expended and rewards gained.

Home Health Care Workers Selected Comments about Meaningfulness of their Work

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| *Nina* | *The people seemed to be nicer when they're in their own home as opposed to somewhere else. It's really nice to help people. It's nice to listen to their stories and learn about what things used to be like. It's really nice to help people so that they can stay in their homes so that they really don't have to be a place that they don't want to be.* |
| *Diane* | *When you're one-on-one you know more about them. You can pay attention to their systems, how they look, and you have more personal time with them and so if you take them to a doctor's appointment or you talked anybody that's dealing with their case, you can advocate for them because you're around him more than anyone else. And then, because you know them you end up caring for them. They tell your personal things. They cry to you. They complain and end up confiding in you. Sometimes you even confide in them.* |
| *Beth* | *They are people at their physical worst. And you have to do it with integrity. And you have to give them the integrity. And so the cleaning and 80-year-old man who has a diaper and has the bowel movement that needs to be cleaned up or if you're giving a woman a shower and you notice that she didn't clean herself up enough or get it all then you have to treat the person with decency and respect and make them feel that it's no big deal that this needs to be done. I have to do that all the time.* |
| *Kelly* | *It's a satisfaction to us that we are keeping them in their home where they want to be. We keep them home longer and they are not utilizing all the resources. I think there are a lot of people who are in nursing homes that shouldn't be. They just don't have a support system.* |
| *Juanita* | *In my culture we teach that we need to help elderly people. I helped my grandma and my grandfather. I am from ____.(country name removed to protect identity). I feel very upset about the people. They have terrible diseases. Cancer is a terrible disease. We can do nothing if they don't want to take their medication. I cry. Not in front of the people, but I cry when I am not with them. I love to help the people.* |
| *Stephanie* | *It just takes the right type of person to be doing what I am doing. With this company, I feel that I am home. I found my love for what I am doing and I am grateful for that. I have been praised for my work by both the patients and the company. Patients and family members send letters and cards and how they were glad for what I did* |
| *Eileen* | *I think it keeps me going because I love what I do. Every day I see people who look forward to seeing me. I go out of my way and do little things and it makes a difference and they are all family to me. They are like a part of me.* |
| *Jane* | *We get to know them. I know them, their kids, their grandkids, their great grand kids, their pet, their grandkids pets, their grandkid's sports. We get to know them on a detail. They say I have changed their lives.*<br><br>*One patient, who is by herself, calls me her "we." She says, "When you are with me, we are a 'we' and I am not an 'I' anymore. Some people have somebody, but I don't. So when you are here, I feel like I am not alone. There* |

| | |
|---|---|
| | *is a 'we.'"*<br><br>*Some aides do the bare minimum, but I can't do that. For many of these people don't have anybody. If we don't give them support, then they aren't getting it from anyone else. This work is very personal. It's on a totally different level.*<br><br>*We could use more recognition from everyone. Honestly, when I am in homes the nurses just know that I do immaculate care for every person. I literally change their lives. I get people who were lying there doing nothing to go out in to the community and volunteer.*<br><br>*They tell you to keep emotional distance, but that's impossible. I have a guy I have been with for so long and I know all the ins and outs of what hurts him. Certain things that make him feel better. I try to do that man seven days per week. It's impossible NOT to fall in love with them.*<br><br>*I don't judge them. I was in their shoes. I was very sick and I was in the hospital for a month. I had to have someone help me wipe myself, walk and feed. And I literally understand how they feel. I was embarrassed. It was one year since my son died. And they didn't believe I was going to make it. HELPS syndrome. My son lived for 45 minutes before he passed away. My kidneys were shot, my liver was shot, and I didn't walk for days. I had a catheter. I had it all. It was a very humbling experience.* |
| *Laurie* | *I like making people happy. By the time you are done they are saying thank you and they are eating and they feel better from taking the shower. They are brightening up.* |

The meaningfulness of the work is derived from the personally intimate nature of the work. Personal care is central to the work and it is the locus of satisfaction for the experienced home health care worker. The act of cleaning, bathing, putting lotion on the skin and helping the person to get dressed is a profound act of kindness and daily restoration of dignity for the home-bound person who cannot do these things for themselves without help. Home health aides stand with people when they are facing their own decline and eventual death. This may be the very first experience with any type of dependence on another person for such basic "activities of daily living." Aides acknowledge that certain parts of the work are not pleasant, but that this goes with the territory.

> *First of all I think a home health aide needs a positive attitude about cleaning a commode or sweeping the dead skin cells off of the floor if they are crusty, or washing or bathing someone, or feeding someone that may not be able to hold food in her mouth I would not negate a patient that I would have to do something for that I would have to do that for myself. (Diane)*

> *You are told to do many things you don't like. It's a part of the job so I have to do it. I can't say I don't like it. I do it. I don't have any troubles. They say that they are so much more comfortable. It is private and personal. We have patients in their 50's or 60's and they have cancer and breast cancer. That is hard for me to see. Not because of the way it looks, but because of the way they feel. They will say, "You are going to see something that might bother you. So I say to them, "Don't worry about it. It's not about me." They have to reveal themselves in a way that they don't want to be seen. (Dolores)*

Skilled aides explain that ideally autonomy is preserved. And, specific skills in preserving dignity in the midst of naked moments are important. Yet, many aides do view these details of life as purely simple facts and approach intimate matters, such as personal care, with a light-hearted practicality. They often describe how they cajole people into their showers or talk to them in ways that distract from the most humbling parts of the clean-up routines.

> *I am all for letting them do what they can do for themselves, because otherwise they give up. I think it's very important that they get up and move around so that they don't give up on everything. I am all for them doing their own care because I think it's very important that they can do what they can do for themselves.*
>
> *People asked me that how do you cope with the other people naked. At first I didn't think I could do it either, but once you've seen one, you've seen them all. And you don't think anything of it and this is just our job. Some jobs are messier than others. I have decided that I would treat any client the way I want to be treated or the way I want my loved ones to be treated. (Victoria)*

*People are going to go through frustration. I had a lawyer and he was fine and I did everything for him. One day, I went in there and he went off! And so I just listened to him. And so I said, "Are you finished." He said, "Yes." And I said, "Back to square one."*

*You are going to meet people who were up and on the go. They were in court. They were doctors. And they were independent and now they are dependent and they don't accept it right away. And so, you are going to have a problem.*

*I have been exposed to that problem. I give no feedback at all. I don't react. And then, most of the time, they want you to stay because they cannot get in and out of the shower. They will change their mind. I will find them on the floor or having falling in the shower. So they realize they need you. I say to them, "you can help yourself somewhat. I am going to show you how to do this. You have got to put your arm like this around my neck. When I start moving up, you start moving up."*

*So, the lawyer found out how to do that with me. I wasn't going to get hurt and he wasn't going to get hurt. It worked and he was my new best friend. Sometimes I will show them how they can do things partially for themselves. I teach them how to get up.*

*When I grew up, I was just that type of person. I learned how to handle other people's frustration. When they work that off, they are fine. (Fred)*

*Religious Motivation*

Over half of the aides being interviewed for the study endorsed religious motivation as their primary reason for selecting this occupation.

*I was about 21 when I became involved with ministry work for the elderly through my church.. These people needed help from day to day with activities of daily living and of course I did not have formal training in home health assisting, but just with compassion and love and the desire to help these people gave me the push I needed to enter into this field. I did that for free. It was completely voluntary. It was completely for compassion on my fellow churchgoers. (Diane)*

*I am religious. I came to this country and this is the work that God gave me to do. My husband and I both serve the Catholic Church. I serve Christ by serving these*

> *people. I cannot openly pray for them or with them, but I do pray for them. (Stella)*

*Stress Process Models and Emerging Work-Related Stressors*

Stress Process Models acknowledge the social context from which stress arises and proliferates and thereby moves an individual toward either greater advantage or disadvantage. Sources of strain can include family interaction, workplace-level or societal-level factors and can include complex social webs and interacting socio-cultural systems. Racial discrimination, violence, and experiencing death are examples of socially constructed phenomenon that home health aides identified as sources of work-related stress. In addition, aides report that their own family is impacted by work and work is impacted by their own family in stressful ways.

*Work/Non-Work and Work/Family Interference*

One major stressor identified in the literature is the way work interferes with non-work life and the way non-work life interferes with work. While these are not the same, they are important sources of strain and are commonly expressed as work/family balance. Striking a balance between devotion to work and devotion to family is thought to enhance health, especially because maintaining bonds with a significant other is related to well-being while at the same time maintaining job performance is also related to economic stability, which is, in turn, related to health. Difficulties in either sphere and in how these spheres interact has the potential to threaten physical and mental health. Frequently these demands are at odds with each other because there is only so much time and energy each day, week, month and year.

> *When I go home, I don't bring the job to the house and I don't bring to the house to the job. (Stella)*

Home health aides expressed these types of stressors in detail, but often turned the tables on the question towards a more selfless theme, especially among those with religious faith playing a central role in their work and non-work life. Aides expressed concern about how the work affects their own families and also their own mental and physical health. In Sharon's experience, also notable are the consequences of overworking. Prior to the Fair Labor Standards Act regulation that overtime be recompensed at time and a half, aides often worked long overnights with only a small shift differentials.

*Often you are literally killing yourself with over time and it didn't work for my family. My marriage has suffered. Working overnight is how I got the most hours because I get an extra $.50 for working after five and it's nothing really but it does add up over time. I was working 87.5 hours per week and I was working 8 PM to 8 AM 12 hour days. But it caused lots of problems with my marriage. Amongst other stuff, I was arguing with my husband about this job.*

*Because it's like the more you work here, the more they call you. And it feels good to know that they consider you to be a dependable and reliable person. There are times when I'm at home for my regular shift and then the agency would call me no longer than 40 minutes after I got home. And I was ready to march back out. My husband was honestly saying, "You're only sucking their dicks and you're kissing their asses. When they tell you to jump and the manager snaps her fingers, …" He felt that I was choosing my job over the family when that's not the case, but it was a time that I started working a lot of hours because I had to start custody battle to get my niece out of a very volatile situation. I was working so much overtime because that's the only way I could pay for the legal fees.*

*My husband was working, but he actually only was making $7.25 an hour in a retail company. So, it got to the point where I was working so much and even if they would call me at four in the morning, or at two in the morning, or at six in the morning - and me being the kind of aide that I am - I hear that client's name and I get myself into my car because I care so much about them. (Sharon)*

Balancing parenting responsibilities is always difficult for working people, especially for single mothers or families when both parents work long hours or have demanding work. Esther's decision to join a co-ed sports team demonstrates the development of a coping strategy, developed as antidotes to the heavier, depressing work days.

> *My son said I cared about the patients more than him. And that made me sad. He wanted more attention. He was 12. I play softball now and in the summer it is the one thing that I do for myself. I really love it. It's a co-ed league. It's outdoors. They need to have four girls on the team. But, this bond to the patients can be harmful and at the same time can give your life and work meaning. I am not exactly sure what it is. I love work. I have a good work ethic. I give the care all the time. They get the care. All the time. (Esther)*

Most of the aides I spoke with wanted to talk about the influence that their own family had on them in their journey toward the work of a home health aide. They had formative experiences that gave them skills, compassion and a desire to pursue this type work. At least ten of the twenty five interviews included difficulties faced in life early that gave the aide insight into what it is like to care for another person during an illness or after an injury. One of the aides was personally devastated by losing her baby and suffering a life threatening illness after the birth. When she made a full recovery, she translated her experiences into a positive pathway, realizing fully what it means to have major organs shutting down and being so very unwell for a period of months. Aides will recall memories of an uncle they were required to care for as a child or a parent's illness.

> *Also I take care of my mom and she cannot walk or talk. This kind of job helped me to learned things about helping my mom. When I am doing my job I am doing my job. People need care and we are prepared to treat them the right way. I don't mix those things. (Stella)*

They describe themselves as the nurturing person in the family who could somehow better tolerate the work required to care for their loved one. They describe days when they looked forward to these care burdens, realizing the difference they were making. They often have religious overtones, believing these relationships and the tight bonds that form "were meant to be" and that "this is what it means to serve Christ." Their early experiences with suffering formed an outlook on life that is characterized by gratitude and simplicity. Furthermore, sometimes an aide like Stephanie identified the core concepts of the generation gap and finds that she is willing to do the care that spans that divide.

> *Before I got into this, I stayed for one year in Greece when I was in my early 20s to take care of my grandmother until she passed. Prior to that I spent all my summers in Greece and in my teens I would take care of him. This was all on my own. Nobody was making me. I was a teenager. -- Some of these families are so disconnected. They don't bring over a plate of food. They don't share meals even if there are children in town. The children get very disconnected. They are personally disconnected. People are busy but there is a problem. The clients in their 90s had to work very hard to put food on the tables. Values and morals were different. They were stricter. They had discipline. Some of the kids may have taken it in the wrong way. I hear it. They talk about how they gave them the strap or they smacked them around. But the kids didn't take it well. So they are distant. (Stephanie)*

> *I had my son young and I have been through it all. I have been homeless with him in my car. And also I saw hard times in my home country. My people came here with nothing. As a young single mom – I went to work full time, went to school full time, and got a 4.0. I bought a car. I bought a home. When we do better, we decide to volunteer. I have seen my family suffer. (Jane)*

*Dealing with the Clients' Families*

More than three-quarters of the aides interviewed agreed that the family members of the patients are the most common stressor and most frustrating. The most common annoyance was

simply being asked to perform duties outside the care plan. It's stressful for aides to have to explain and defend their decision to stick to the care plan.

> *When the patient is not satisfied with us because they are expecting us to do more than what we're supposed to do, more than what we have to do in the care plan, then that is stressful. For example sometimes they want us to go to the bank for them. Or they wanted to do something else for them like that. The agency doesn't allow that. And we don't want to lose their job just to do them a favor. And it's very stressful because then they get mad at us. That's a very uncomfortable situation.*
>
> *Also, sometimes the clients are not very friendly. And the family members may be very unfriendly. Here's an example. It was the patient's girlfriend. He was the nicest person in the world but every time I used to go there I was uncomfortable because she was the type of person that she was a professional and she worked in a hospital and a very good position and here I am just a home health aide. So she constantly thought she was better than me and always let me know what to do. Yet the patient wasn't like that. It was just her. She would say, "Make sure this is done. Make sure that it's done."(Marisol)*

> *Sometimes the families are too demanding. Recently somebody asked me if I would clean the bathroom walls with bleach. We don't do windows. We aren't there to clean up after the whole family who had a dinner party the night before. (Beatrice)*

The treatment of the aide coming from the family member can range from mild condescension and inappropriate requests to irate disrespect. This can progress to violent or destructive actions either witnessed or borne by the home health care worker. In three instances, those interviewed relayed that police were involved.

> *I had to deal with an irate family member who, in my opinion, was irate over something that was not a big deal. He blew up and I was called names and I was*

*sworn at. I tried to get him to relax and just talk to me in a calm manner but he refused. My gut instinct was to scream back and yell back. I knew if I matched his, and I have a temper, it would make things infinitely worse. I was so exhausted after that I had wished I could take a nap but I had to keep going and deal with my day. (Beth)*

*The family members butt in! The client may know what you need to do when you're going in there, but the family members have a different idea and have a lot of attitudes. One day this woman who lived with the client didn't like the way I said something so she called the police on me. And I called the office and they told me to leave. Otherwise I would be taking too much. And I'm the type of person that I don't let anybody throw me. The agency didn't send me back there. I was willing to go back there because I had a good relationship with the client, but I don't know what happened, but soon after I left caring for her she died. We have situations like that. The family members give us all that stress, and then all of a sudden their family members gone. (Beth)*

*These family members can be involved in illicit activities and one time I had to run out to the snow and actually run because the family member was a criminal, and that leaves the patient uncovered and I used the chain of command and I called the police. (Diane)*

Generally, the stressors related to the family are more mundane and easier to cope with on the part of the aide, especially because the aides have gained insight over time into the psyche of the family members who are also fearful about change and coping with new routines.

*Patients are sometimes afraid to tell the nurse something because they are afraid they'll go to the hospital or they'll get in trouble. They ask me not to tell, but if I don't tell, what if something happens to that patient? This is stressful, but I have to report things. (Stella)*

> *Mostly it's the family members that make stress. Sometimes it's adjusting but sometimes it's a jealousy factor when they see their loved one bonding with the aides. That happens a lot. They are not in control like they want to be in control. The clients trust me. I have gained experience from so many people that I can tell when they are lying. I am personable, down to earth, and have good intuition about when and how to interact. (Stephanie)*

Some aides, who have recognized the stressors caused by families, have assessed what commonly motivates these uncomfortable interactions. These insights help develop strategies for managing the emotional turmoil that often follows serious illness or disability. These ideas seem borne of trial and error, astute observation and both empathetic and practical insight.

> *I am not stressed out by family members. I settle it in my mind how I am going to manage the family. Some are set in stone. I don't try to change that up. I have found in meeting where some aides had a problem with that. Some family members want to watch you do the care. That never bothers me. They can help. If the patient likes it, it's even better. I just keep it friendly. I learned how to do that. I was taught the skill of talking and being helpful. You do that with the family too because they want to be involved. I will ask them about the usual routine. Any problem is settled. When they see that you know what you are doing then they will leave you alone to your job because they are settled into what you are going to do. I involve them. They see how you are doing things. Or they want to stay involved. (Laurie)*

*Dealing with Death*

Home health care workers are taught to keep a professional distance and not get involved with their patients. They all related that this was not possible. They all reported feeling closer to certain patients based on their personalities and on how long they had been caring for them. If it

was longer or if they felt particularly useful (say if there was no other family) or if they simply really liked the person, they would take the death harder.

Aides are trained to stay calm and provide support for the family. They are free to participate in services on their own time and most do attend wakes and funerals to achieve closure. Aides feel they can play a role as a surrogate family member, but they realize it's not permanent. They mainly find fulfillment in keeping the patient home to the end, but some home health aides prefer not to be placed on hospice cases because their case loads become more oriented around death and they feel emotionally destabilized by facing the end of life care with that much frequency. Others gravitate toward hospice cases, even specializing in end of life care. Schedulers keep track of which aides work on hospice and which do not. Most of the interviewees had strong statements to make about how they manage death, what meaning they attribute to it, or simply wished to share their experiences.

Selected Comments about the Death of Home Health Aides' Patients

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|---|---|
| *When they die, we are sad. They tell us not to get involved with them, but it's really hard. When they pass away, we feel it. We take it hard. Maybe around 20 people have died that I have taken care of in the last few years.* | *Dolores* |
| *A couple of them were very emotional and when I found out they passed. It was heartbreaking but I was there when they really needed me and they enjoyed the one-on-one with me and the family came in thankful about what I've done.* | *Emma* |
| *We get depressed because so many people die. The person I'm with now, I've been with for four years and she's getting really bad. Most of the time going to someone's house is not a fast decline. It's slow. And with all the care you watch their skin breakdown, they stop eating, their mental status changes, they dehydrate. And you're watching this step by step as they slowly deteriorate. And that's probably the worst part. I think it takes more of a mental toll on you than physical. My dad is a funeral director, so I have learned that all my life. I understand the whole cycle of life thing. You have to try to keep it in perspective as he watched them break down.* | *Nina* |
| *We are the only people who visit these people. If they have family, they don't come. It's like they are your grandparents. There are some people we have cared for over 15 years. We get sad. One girl was very young. She drowned as a child, but they brought her back. We had taken care of her for a long time. So we attend* | *Barbara* |

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|---|---|
| *the services for closure. They say you are not supposed to get attached, but I care about the people because I am a good person.* | |
| *It is fulfilling and you do see them as family but there is a limit. It's hard to explain. You are like family but there is a line you draw. You still have a job. You are an employee you are being paid by them. And yet you have a connection and a relationship and I can't really explain it.*<br><br>*I knew all of his children and his two daughters and his son and I was close to them. And I was invited to their parties and things and I would go but I still knew that I was not family. When I went to his funeral it was kind of like weird that I was sad. I understood that it was time to go and his daughters acted like they would call me. But, I knew they were really not going to call me next week. And I knew that would be okay because that's the role I'm playing.* | *Charlene* |
| *I have been at home when they pass a few times. This one woman was very ill and she went to the hospital. She has a son and he didn't really show up very much. Whenever he did he was always in a hurry and some of the girls would get so upset with him. We were more affectionate toward her than he ever was. We took care of her. So when she went to the hospital, we knew because she was really bad that she was near death. And so all of us went to see her in the hospital still alive.* | *Beatrice* |
| *And the only thing that causes the emotional stress to me is losing the clients. You do get emotionally attached to them. I called my mother the day of that death. And I excused myself from that house and I started crying. I had to leave because I could not be the strong one in the room anymore. I called my mom and cried to her. Once I got that out of my system, I was able to go back in for her the widow so that I could be her rock and be the person I need to be for her. It bothered me and it still bothers me. It's hard to believe that he is gone.* | *Beth* |
| *I took care of client and when I started I was told that the client had two weeks. Hospice is coming in and that there's no hope. The client was not eating the client was not getting out of bed not I started there and within the first three weeks I got rid of the Hoyer, the client was walking around the house the client was eating full meals. The skin and everything was better and that client lived for three years almost 3 years and then the client passed away - I internalized that.*<br><br>*We are trained to involve the family as much as possible. So while we were watching his her dad and we rolled him over to me. And in that few moments he died and I didn't know how I was going to tell her when we roll him back over she's going to discover that he has died. It was very difficult.*<br><br>*One night I had to wait hours with a dead patient for the funeral director to make arrangements. It was really weird and terrible. It was too much.* | *Sharon* |

| | |
|---|---|
| *On Saturday the patient I had wasn't doing too well. He couldn't walk. Saturday he ate a little bit. On Sunday he looked worse. He didn't sit down. He touched my hand and he said I don't know where you get the energy to do all this work. It's hard when the patient is in pain. We have time, we don't have to rush. He is in pain. So we go slowly. That Sunday he was praying. He could not drink water. He refused water. He was getting ready. He was praying for four hours while I was sitting by the bed. When I came in Monday, I found out that he had died. I never said anything to the daughter. It makes me feel sad because I am a person. I am a human. When these things happen with my patients, I pray for them.*<br><br>*We are prepared. We have to keep calm. So if something happens, we don't get sad or nervous. I had lost my sister. That was hard for me, too. So now nothing is hard for me. I look around, still for my sister. It is different with the patients. We suffer, but we have to continue.* | *Stella* |
| *There are only two people that I really cried for since I have been with this agency. They became my friends. I don't want to see any of my patients suffer. When it is time for them to go, they are happy to go into another better place. They are getting good care. They are on their way out. I don't want them suffering emotionally or physically. They can let go. I accept the passing. Quite a few have passed away.* | *Stephanie* |

*Racism and Discrimination on the Job*

Given that home health care workers do not have a typical work site, there are unique opportunities for discrimination to occur in their day-to-day work. Among those interviewed, thirteen were non-white and five were immigrants. Only two of these had bachelors' degrees. Aides were asked an intentionally open ended question: "Have you ever experienced discrimination at work?" Six interviewees admitted to having experienced discrimination. Sometimes they reported being able to work through the issue and other times the agency stepped in. In their responses, aides describe discrimination for being a woman, for being a minority, for being born in a different country and for being of a lower social status. This discrimination was fairly routine, but not at a level that was any different from regular life in American society. Consequently, for the most part, when aides encountered negativity due to

race, class, and gender, they did not find it particularly troubling. They generally approached the issues by diffusing it or ignoring it as they had their whole lives in non-work realms.

> *One time there was a lady who called me the N word and I tried to make light of it and I made a joke and said I was Spanish. I don't let that stop me usually. Once they see your personality that changes. Some are kinda funny but you work with them. You have to be strong. A lot of younger generation can't. We train the younger ones to handle it. If it is very bad you call the office. (Laurie)*

> *We are an era when people are very racist and you have to mind your tone because you know that if you say anything you're fired. So you just do your job. It's not the agency, but it is the individual person being cared for. You can tell when you get in the door what era they came from and how they were raised. And they see you as more than just a help. They see you as "the girl" and it's not in the way where it's respectful. I am the type of person that just goes in and I do my job and just keep moving. (Charlene)*

All nine agencies have official policies that disallow discrimination and most will terminate a client to support their home health care worker's right to experience a workplace free of racism and discrimination. Problematic racist behaviors occurred most frequently in the form of verbally inappropriate comments and condescending interpersonal stances. These came from clients, their family and friends, people on the streets, and co-workers. Yet, when it came to coping with racist or discriminatory behavior, an individual's response in the field seemed to matter most.

> *They give you certain clients in certain neighborhoods and if you are black and they are white, there can be a problem. Often it is not the client who has open arms and needs your help, but it's the wife who may not like you. She might not want you because of the color of your skin. They want you to go in the back door,*

> *but the nurse went in the front door. She told me I didn't have to come back. The white nurse didn't want to put up with it either. She also left the case. (Fred)*

Some aides will draw from their upbringing and previous experience to develop a conscious way to work through racism with the clients through a combination of ignoring the racist remarks and delivering quality care in a way that wins the client over, sometimes even overcoming a lifetime of racist thought.

> *Yes I have been spit on by my client because I was black. I just worked through with a bit of sunshine and he looked at me like I was crazy but then he ended up staying with me because I'm not here to handle their racism personally. I am there to handle their care, so that's the way I think. And eventually that shell breaks off and then it cracks the shell and then it breaks through. (Monika)*

But, even with these strategies and a supportive agency policy, aides still experience frequent and blatant racism and discriminatory treatment especially for gender and ethnicity.

> *With my current client, the husband has this issue. She has home care and the doctor is a female. But this man believes that there can't be a female doctor. So he refers to her as the nurse no matter what. He will sit in his chair and wave his coffee cup at me. It's nothing horrible, but he says, "Hey honey, more coffee now!" I just have to let that go. I always tell him to just give me a minute because if I'm done with taking care of her then I don't mind getting him coffee and helping him get his food. But you have to be able to stick up for yourself in someone else's home. You have to be able to say to the family, I'm not here to help you I am here to serve your relative. It is their domain but you can't let them walk all over you. (Nina)*

Generally aides are comfortable with the serving role. They understand their role and they are not trying to befriend clients, get involved deeply in trying to change their beliefs or

values and certainly not trying to take over their lives. Aides maintain a respectful approach about their client's environment and create boundaries so that they become a part of the client's overall well-being, realizing fully that their well-being is dependent upon the care being delivered. Other matters, even experiencing racism and sexism are secondary to those primary goals of caregiving.

*Sexual Harassment and Other Related Issues*

Home health care workers, after the first visit to open the case with the nurse, arrive to the home without anyone else present and often work alone with the client. Sexual harassment and abuse is common. Most of the aides discussed mild variations of sexual harassment, but four of the twenty-five respondents discussed more problematic and detailed instances. Aides cope with it in a variety of ways. Agencies have fairly consistent policies for managing the problem as well. Other sexually related problems are prostitution and when patients become physically attracted to their aide during the course of their care.

> *What I take more personally is these old perverts trying to smack your butt. That does bother me. (pseudonym withheld)*

> *With regard to sexual harassment, if you want to get out of the case, you can. I have had it happened a couple of times. You talk to the client and say, "that's inappropriate, not nice." This worked in one case. In another case it just didn't work, so we had to get a male caregiver. (pseudonym withheld)*

> *I have experienced sexual harassment. I left the case because he was saying lewd things. I have been fortunate enough. I stopped it. I stayed an hour and let my boss know. With some they are just flirty cute old men and you work around that. But if one is outright disgusting, I won't work there. (pseudonym withheld)*

*Prostitution*

Although not commonly described by the home health aides I interviewed, one aide believed that arrangements between aides and clients for sex were not unusual and motivated by a number of potential drivers.

> *Some aides that become one with their client make special arrangements. Some aides take their clients credit cards and some are having sex with their clients. Some aides are attracted to older people or the specific client is so desperate for sex that they are willing to pay the aide for it. The aides sometimes have to support an addiction or maybe they have to put food on the table. So it happens. (pseudonym withheld)*

*Physical Attraction Issue*

Aides provide a friendly, positive stance in order to promote the client/patient's health. The client may have become socially isolated due to their homebound status. Given that aides are a main social contact and that clients may have a need for physical intimacy, it is unsurprising that physical attraction sometimes develops.

> *Women do more than males and we clean and we cook and we make things beautiful. So my client was falling for me a little bit. So I had to stop hugging because he had a bad impression. And it was sad because there was a big improvement. His diet improved. He lost weight. But, he was starting to be touchy and falling for me. I was the only person coming in and talking to him. I am friendly. He was in his early 60s. We had a lot in common. I felt so badly when I had to leave this. I am very careful with men. Even when I was trying to be unattractive with the way I dressed. That was so sad. Usually it's more normal bonding. (pseudonym withheld)*

*Emotional Stressors*

Home health aides describe stressors that do not fit directly in work-related stress models. The work is uniquely emotional. They describe being frustrated by the inability to relieve pain, reverse disease process, or improve hopelessly deteriorated family dynamics. They describe knowing they cannot handle hospice settings, while also having to face clients' deaths with an uncomfortable frequency. There are times when they cannot assuage the clients' sadness or depression, even with their best efforts. There are times when bonds do not form and care takes place in silence. They sometimes reach the end of their ability to improve things and wish there were more or different resources.

> *I had one stressful patient. She would talk about how she wanted to die. Her husband died and she got depressed. Even though she was a smart woman, had her daughter living next door, and there were grandkids, she felt she was not a benefit to anyone. She was a smart lady. Her husband had been a lawyer. She was valedictorian of her class. After his death, she just sat at home for two years. She used to have a large social circle, but her Alzheimer's disease was isolating her from her friends. She would talk about how she doesn't want to live. I don't have a psychology degree and I was afraid of saying the wrong thing and making it worse. Her husband set up an account so she would have 24 hour care. Her family was all around her. There was nothing more I could figure to do. (Esther)*

> *Are you asking me what makes it hard? When they are in a lot of pain and you wish you could help them, it is frustrating. When you see them crying in pain, it is really really really hard. We have to talk with them and keep ourselves under control so we can calm them down and say, "It's going to be ok." Being a home health aide has helped me to appreciate the little things. We often complain about little things and when you see people suffering from so many ills. We can appreciate being able to walk. We are not in pain. We have our families. (Dolores)*

New patients can also present an uncertainty in their work. Aides with less experience are sometimes anxious about what they will encounter on the other side of the door with new clients.

> *I am nervous for every new patient. You don't know what you are getting into. Like last week I was assigned and I didn't realize it was a new patient so it was fine, but I didn't realize the nurse was going to be there and starting the new case. (Esther)*

*Workplace Violence*

*Witnessing Violence in the Community*

Every home health aide I spoke with copes with the potential for work-related violence because they are serving people in the communities, in the public. In addition, the homes have potential for unpredictable violent acts. One aide in particular worked in a mid-sized city, in rough neighborhoods. She witnessed more violence than usual, likely due to her many long hours logged at all hours of the day and night while caring for homebound patients.

> *There are some places where I will carry a stick of a broom with me because of the locations I have to go at night. There are gangsters outside and I've seen people get shot. At the corner, I heard the pop pop pop and I watched the blood come out of that guy. I saw another shooting. Also my car got shot up. The bullet went through my back window to the passenger seat and out through the front windshield. All I could think about was my kids would be sitting there. The client was 100 years old and I had to be with the client. But, there's a lot with this job.*
>
> *I was with my client at a large apartment building. Someone committed suicide right in front of me. It was not my client. I was sitting nearby with my client and he was sitting in his power chair smoking his cigarette. All of a sudden we hear something metal sounding and then see what looked like garbage or something coming out of the window and then boom! His body bounced. I would say his body fell within ten feet of me because his blood splattered onto my pant legs and my feet. I didn't realize that I had a shock. I was in shock. He wasn't taking his medications. I found out that he thought someone was trying to attack him, so he*

*tried to escape. It is hard to get that sound out of your head. He jumped from the 12th floor. You see a lot with this job. (pseudonym withheld)*

*Worrying about potential violence*

The potential for violence and/or the memory of its recent occurrence can be considered a stressor.

*When I first started this job I thought about that. What if they have a gun? At least the nurse goes in first and if she sees anything suspicious, she will not allow the case to proceed. She will be alert. You don't know these people. What if they have a gun or they are going to shoot me. The family members are worse than the clients. You are there by yourself. I was scared like that for the first year. I got over it. (Victoria)*

*Victim of Violence*

Home health aides in the interview series not only had stories to recount about others who experienced violence, but they also recounted their own traumas. Those especially at high risk for injury are working with special populations, such as patients with Alzheimer's, psychiatric patients, or those with other criminal histories.

*I work at a psych house with one of the patients. So I was assigned a different case that day. That day one of the men stabbed the worker thirty-two times. He survived it. He got hit in his jugular vein and he has permanent damage. I have seen him. He tried to come back after months and lasted one day.*

*I was attacked by a patient once by a patient. I felt uncomfortable with her and took her for a walk and calmed her down. She was agitated and she came at me, attacking me with scissors. I told her I was going to leave. I had my fluffy coat and I was able to get the scissors thrown aside. And then she started hitting me. I backed out of the front door. We are supposed to have a second aide. I called my boss. I understand she was a psychiatric case.*

> *There are some people who just should not be at home. The agency will be contacted when we can't do enough in the time to make things workable. We aren't there around the clock. Some people should be in an institution. We put in our two cents, when we are not safe or the client isn't safe. (Jane)*

Work-Related Stress Buffers – Agency-Level

*Latitude*

Working offsite and not under direct supervision is an attractive feature of home care work. Home health care workers enjoy latitude as they move through their days at their own pace. They can decide how the care plan will be conducted according to their own best judgment about how to meet the patient's needs.

> *Most of my clients are happy to see me there excited to see me. Unless they're not feeling well or something but they're very excited to get their shower or get their nails clean and we have the tasks down so you are able to get it done. Sometimes you're going three days a week and so if you don't get something on one day to get to the other day get caught up before the week is over. You can decide when you do things, you can assess the situation. (Emma)*

> *Nobody's job is depending on my job. I can do it at my own pace, in a different sequence. Nobody is coming in behind me. You can decide how it will work and as long as you meet the criteria for the paying unit (Medicare or Medicaid). We can sit down and talk and the agency gets paid. But we can decide what order we do it in. Much depends on the mental state of the client. If they are in tears you can't care for them very well. You may spend half the visit calming them down. (Margaret)*

> *At the house I'm at currently, Mondays I do the kitchen. Fridays I change the bed sheets in the bedroom. On Wednesdays I clean the bathroom and on Thursdays I do the living room and the kitchen. It all depends. I have been with her for four years. Once you're with someone for so long you get to know them and how long*

*it's going to take. You just work on what you can get done in the extra time that you have. (Nina)*

*Support*

*Via management*

The certified home health care agency executives and middle managers were all women. Furthermore, these women are almost always nurses that rose through the ranks due to empathetic but strong management and administrative talent. They were generally exceptionally observant and also empathetic to their staffs because they were all involved in direct patient care at some point in their careers. Aides report good "up-line" communication.

*I have good rapport with my supervisors. If there are any issues you can call them and if they can answer you they will set you up with someone who can answer the questions I've always been happy with the answers to that. If you have a question about the care plan, then they get back to you about that. (Emma)*

*Management protects us from really strange situations. You can go to them and talk to them about situations. It's an open door. All the supervisors used to be nurses. (Nancy)*

*Our executive director steps in if I feel that the conditions are horrific. She will call adult protective. I don't mind cigarettes. But if you go in and there is dog poop and urine, then that's a problem. (Stephanie)*

*Via Co-Workers*

Lateral support (from co-workers) can be found, but of the twenty-five interviewed aides, only three maintained any social connection with other aides. Most of the aides report having a completely separate social life and that they have no need or desire to socialize with the other aides inside or outside of work. In discussions about face-to-face in-service training, aides nearly

universally endorse the need for more face time with other aides to interact over the work itself. Some interviewees detailed a strong sense of isolation in their work. They were equating this to a lack of support.

> *We don't have a support system. Supervisors lose track of their employees. I never had anyone to talk to when I was working as a home health aide. I would have to call my mother and heart to heart talk with her. And it was stressful. Sometimes just to tell somebody about your problems may help you feel better. Instead of the office saying something in a gruff manner and it doesn't really help.*
>
> *I believe they should come in on a Monday and do a support orientation. We need to listen to aides and ask them what they need changed. It's the best way because you can hear just from their conversation. I believe if we put them all in one room they will tell us what they need. One person will not talk but together they will find a way to this to say what is needed. (Monika)*

*Via Technology*

Each agency had different technology solutions to support their overall operations, including expansive and up-to-date computer systems, telephone systems, and smart phone technologies. Home health care workers were further supported in the homes with Hoyer lifts and other assistive equipment for clients. For years, paperwork was the bane of existence for home health care workers. Smart phone and other telephone systems have radically reduced paperwork burdens.

Sometimes the introduction of new tools evokes fear and panic in those home health care workers who are not all that interested in change or in computer-based systems. As I have noted, many aides are middle aged or older persons who simply did not grow up with or ever have the opportunity to become accustomed to computerized information systems. Plus, sometimes these "system installations" are slow or have rocky starts as they "go live."

> *Care plans are done on the phone. It makes it a lot easier. There is an ID and password. You clock in and out and the paperwork is done right then. It's nice. It's fresh in your mind. There is no paperwork at the end of the day, now. In some ways it is better and other ways it is not. We can call in the information and document it. (Eileen)*

> *We used to do paperwork and time sheets but now we log in over the phone and everything is documented on the phone. And it asks you did you perform this, did you perform that, and then there's a place for you to add something comments from the client. You have to let the nurses know any unusual things. If you need to speak to nurse you have to call in. But normally everything else is logged in on the telephone. You log in your arrival time. It will tell you the client's name and the time you're there and it will give a list of tasks for you to perform. All of this is an automatic system. And it will say what to do. We just switched. This is modern technology going up now. That's our timesheet, too. (Emma)*

*Via Training*

The training of home health aides in New York State is governed by the New York State Department of Health. This training is comprised of initial sessions to certify home health aides and also ongoing in-service training. The training includes sections on the skills required to carry out the basic tasks of the work, such as making beds, giving baths, toileting, transferring the patient and offering assistance with feeding. Occupational health and safety training is covered in order to prevent injury, illness or even death on the job. During the interviews, home health aides discussed the characteristics and assessed the quality of their initial training. Some were trained years ago in community based free programs. Others were trained more recently by the certified home health care agency itself or another local training operation. Individual agencies conduct the in-service portion according to their own priorities, so long as they achieve the number of training hours required by the State.

Aides reported that their initial training fully prepared them for their work and they also had positive commentary overall on their in-service training requirement. At least 25% of those interviewed were trained to be a CNA and had worked in nursing homes prior to choosing to work as a home health aide. Most reported that training included a stimulating mix of book-based activity and hands on practicum that combined to meet training objectives.

*In-services*

State mandated in-service trainings provide aides with refreshers on concepts and skills that may not get practiced; depending on the types of cases the aides are assigned. Aides generally view the opportunity for training in a positive light. Agencies differ in how they manage these training requirements. Some bring aides into the agency site for twelve individual workshops. Others offer the training content via online modules. And still others provide a mix of options. Some take extra training in Alzheimer's patient care and/or mental health patients.

> *They are kind of a pain but everyone gets together and you don't feel like such a lone ranger. We will find out that everyone else is having a similar problem. So you don't internalize it as something you are doing wrong. You find out that some client has problems with every aide they send. (Stella)*

> *In-services are four times a year and everybody has to come. They hold several trainings and you can choose one that works with your schedule. One facility might be closer to you than the other place. They talk about all different things. And they will have a Hoyer lift there. And then we each take turns demonstrating the Hoyer and then we know that we know how to use it even if we haven't seen in a long time. Because you might be put on the case. (Beatrice)*

> *In services where able to ask questions and discuss our issues. And we sometimes brainstorm about how things could be better. (Marisol)*

*We have to have in-services 12 per year. It's about the only time we see each other. We are allowed to talk to each other and share. They focus on the topic first, but if there are suggestions or problems, they are allowed to bring them up. We just have it for one hour. They try to make the in services …. Like a bitch session. Some of us aides may have the same client, so we can know what the other person in talking about. Normally we are off in our own direction and we aren't communicating. (Victoria)*

*Most of the times we watch videos about important topics like Alzheimer's Disease, Blood borne Pathogens, AIDS, Hepatitis, etc. Mostly there are videos but sometimes people come. They are all set up. Sometimes we read. There is always a test at the end. At the end of the in-service, we talk about problems, patients, and we sometimes then follow the chain of command to get it solved. (Nancy)*

Not all aides felt their ongoing training needs were being met. One reported that changing over to the on-line system isolated aides from one another. A few other aides reported that training was supposed to occur, but often was skipped.

*Well they just recently changed so we now do them on line. I is like that because we can do them at our convenience for the most part there have been some very informative ones but sometimes I get really bored with the routine ones. It is state-mandated mandated so and then dealing thing I don't like about them switching it to online is that we've lost that once a month connection. We have had lost the opportunity to sound off. So we've lost our voice. And that increases the stress. Because you don't have a sounding board at all. It was nice to have the in services and hear other people's feedback and experience and know that you weren't the only one who has dealt with a situation or a similar situation. And you don't hear that anymore now so we don't get together. Home health aides are isolated as it is and we very rarely have contact with one another. I do feel that was another step in isolating us. (Hilda)*

*The nurses are supposed to orient you to board the patient. They are supposed to call you and let you know about the limitations of the patient. And nine times out*

> *of 10 I don't get that orientating. They forget. I forget. And I can read the care plan. I just don't need it. It's written right into the care plan. (Beth)*

> *We are supposed to have the meetings once per month and that doesn't happen very often. And that's too bad because we could solve things together. (Margaret)*

*Under the nurse supervisor*

Home health aides spend time with their nurse supervisor, especially when establishing a new case. These visits can be useful for maintaining aide skills and building rapport between the aide and the nurse.

> *Whenever we go the nurse has to meet us there for the first visit and she will run down the care plan with us. The nurse will run down with us what's going on with them, what to expect, what were allowed to do. And what were not allowed to do. Pretty much that this doesn't always go as planned because they don't always want you to do what you're supposed to do anyway. And you had to figure out what it's really going to be like. And then you have your first visit where everything will go great because the nurses are there and the client doesn't want to get kicked out of the program. The next time when nobody is with you and you really get to know them, then you know what it's really going to be like. (Nina)*

Agency Characteristics / Agency-Level Stressors

One of the most important contributions the conceptual design for this research project makes is the assertion that sociological approaches should not be ignored in stress paradigms. Therefore, Pearlin's Stress Process Model is considered. From this perspective, the social contexts emanating from the agency are important sources of job stress. The interviews offered the potential to explore those stressors as they are located in the socially constructed organization

of people, places and time in the agency, the worksite, the community, and in the society more broadly.

*Lack of Respect*

In Karasek's model, respect at work might be part of workplace support. For Siegrist's model, the lack of respect would contribute to the effort/reward imbalance in that the worker is not experiencing the basics of respect enough to offset their effort. But, this lack of respect is so pervasively reported and so clearly a central feature of home health care workers' experience that it merits further dissection especially because a socio-economic-, racial- or gender-based locus may not be fully recognized in either traditional stress paradigm. Respect for the home health aide may be lacking from society in general, the agency leaders, the supervising nurses, the client's family and the client. Furthermore, the aide's own family and friends my not respect their occupation either. This section will address agency-level sources of disrespect in order to identify it as an agency-level stressor.

The "Just an Aide" refrain equates to a pervasive lack of respect within the home health care agency. The role of an aide is defined by the state regulations in relation to what the nurses do and more importantly, what they do not do. So, with nurses being protective of their scope of practice being eroded, they emphasize their superiority and hierarchical position in condescending ways. In this way, aides are kept to personal care and making observations. They do not get to review the medical chart. They do not get to know the patients' medical conditions. They are not allowed to carry out treatments except in some highly directed exceptions and they are treated as less important to the case. Nurses frequently say, "What would she know? She is just an aide." The respondents report this refrain frequently across all agencies. Some are considering having a sassy retort printed on a t-shirt as a form of resistance to this damaging and

condescending attitude. Aides are offended at this type thinking because they believe their role is an integral and important part of the health care team.

> *We usually get this "just an aide" comment. The nurses say that. The therapists say that. They say that we don't know what we are talking about because we are "just an aide." They don't really realize that we are with the people more than the regular family is. So they turn around and think a person's fine, but you know when they weren't fine. You can tell when a bedsore looks worse. And then these professionals question, "How do you know that looks worse? You're just an aide." But I can't follow something that is bleeding today when there was just a pink spot yesterday. The way they act is just offensive. The patients don't talk about their issues with the nurse the way they do with us. They are much more open with us. (Nina)*

> *I don't think home health aides get enough respect. I've worked hard for years. And I worked myself through school. And I was stressed out. I would be crying going to my car. I never want to cry on my way to work every day. Not because I don't want to be there but because you have a nurse supervisor that believes our jobs as home health aides are not important. And yet our job is important. We're all trying to make the clients and patients happy. And they see our face more, so they know us better. So, the LPN should be listening to us, too. You build a relationship with the client and they will describe knowing us. But we don't get listened to much. So, when I got this position, I found out that I could be a word for them, if the nurses listen. And from this work, and other work in my past, I fully understand what it is to have a low paycheck and I fully understand what it is to have a disrespecting boss. (Diane)*

Aides report firsthand the stress involved when information is withheld. They clearly understand their place in the hierarchy, where information equates to power in the organization, and each person as you move down the hierarchy knows less and less, especially about agency-level decisions or the basic status of the patient. Aides operate at the bottom in a highly regulated system where those who are "in the know" seem to enjoy the dynamic that treats those lower

down as less important and certainly not worthy of the information. At the same time, the aides develop bonds in the care delivery process and yet are cut off from even the most basic information about why a case closed or why they have been moved to a different case without warning.

*Often the agency staffs are not listening to the client and they are not listening to us when we say how much help the client needs. All we can do is report it. Then, you don't see anything happening so you don't think your concerns are being heard. A lot of times we just don't know if action is ever taken. We don't hear back. They do call caseworkers, yet we're the first line. Still, we don't hear back whether a caseworker was actually notified. There may be reasons why nothing was changed, but because we don't see the change, we don't think there was anything reported or any steps were taken. Some of it comes down to the law, why we don't end up hearing anymore. We're only supposed to know so much. And it would be very time consuming if they called every aide on every report. We sometimes see changes in the care plan, but the follow-up isn't clear and sometimes leaves you wondering if anything is being done.*

*And, it's really bothersome that when your case ends, you're not informed. You are simply told not to go there anymore. And even though you're not supposed to have a relationship with these people, I'm sorry but we are human. And it's terrible not to know what happened to these people. You don't know if you were pulled off the case or why this change occurred. They'll call you up and say don't go there anymore. And the scheduler is "in the know" but they don't say.*

*I personally worry they pulled me and put another in. I worry I've done something wrong and they're not telling me. I worry about that. Maybe I'm "Negative Nancy" and the worst comes to my mind sometimes. I try to find out, but usually just call the day before in and they send you somewhere else instead. (Sharon)*

*Then we were told she was going to a nursing home. I have a feeling which of the children's wife was behind it. It's their decision. But it is not what the patient wanted. She and her husband had things in place so that would not happen. They had a head nurse coordinating the whole thing. And she did overnights, too. All they had to do was take care of her bills. I did not understand why she couldn't be taken care of at home. She was still walking. She read every day. She had a*

> *routine and she was not even bed bound. It is frustrating because you can't say anything nor can you ask why. I couldn't even ask a non-judgmental question about it. (Esther)*

*The Schedulers*

Aides spoke freely about their relationship with the schedulers. The schedulers work to meet the needs of the agency clients, while taking into account the availability of the aides and their preferences as well. Some aides work per diem, some part-time, and some full-time. So…. they juggle all these concerns, including geographic assignments, payment schemes, and other miscellaneous considerations. Some scheduling operations have one person at the helm, while larger agencies employ as many as a dozen people in an open office where they work as a team to make all the arrangements to establish and maintain home visits. The schedulers have a hard, time-pressured job. They have to work out the details and set up the whole schedule and manage up to the minute changes all day long and some work off hours, too.

> *The scheduler tries to keep me in a certain area of the city. I don't drive. So I have to have cases on the bus line. The work is flexible for you so you are able to be home for children as much as you can. As long as I stay pretty, I can pick up as many cases as I want. And I can turn down cases. Only with per diem you can turn down cases. (Francine)*

> *The schedulers like me because they know I usually will do anything they need, but those schedulers have so much control over how much money you make. The minute you don't do something that they want you to do, they will take it out on you and screw your income. They will suddenly tell you that certain cases are not available, when you know that they are. They have a lot of control. And that goes into the "clique situation."*
>
> *If you're good to the schedulers, they'll be good to you. And so sometimes I will try to get them to work around my son's swimming schedule. So what happens is*

*if they want me to do something in my off hours? If I don't, then they will punish me because they will take away hours later.*

*They pick and choose when they want to follow the rules. And they have a lot of control over your schedule. They have the cases. You kind of kiss their asses, unfortunately, because they will write you up. Usually we get written up three times before it is really serious. Every day you got to play the game and you've got to have the game already set in your head. (pseudonym withheld)*

Some agencies give the schedulers the power to write up the home care workers and some do not. Schedulers do not directly supervise the home health aide because the nurse is her supervisor, but the schedulers have some power due to the nature of the work and they also have some perceived power, making it seem like they are in control. That builds resentment in the staff.

*Early on you must be firm with the schedulers. [She speaks after a long pause, thinking, proceeding slowly and carefully about what she is going to say next.] You can't be afraid to stand your ground and say, "No, I'm going to work my mandatory. And you're not going to talk me into another one if I don't want to. I'm not going to work outside of the hours that I'm available if I don't want to." You have to be firm with them so that they don't stress you out. They will keep asking and they will try to guilt you into things. I used to be one that could easily be talked into things, but I learned that I should not be afraid to say no. (Hilda)*

*On those days I worked till 7 PM every night for about four weeks. I kept saying yes and I needed the money, but I was physically exhausted. I felt quite resentful that I was working till seven o'clock at night when other people who are going home at two o'clock just because they don't want to work late. I was just very resentful and angry at the other home health aides because I couldn't understand why nobody else would do it. (Beth)*

*I had two car crashes last year, back to back. After the second one, when I called in, I got in a fight with the scheduler because she wanted me to get a car*

> *immediately. I just ignore her when she yells at me. She can yell at me all she wants, but she is not my supervisor. (Doris)*

Schedulers use a combination of software to track voice mail, e-mail, phone calls, schedule changes, client changes, new cases, etc. But, there is always some information that the schedulers just know about the aides, the clients, and the agency requirements. When a new hire begins in the scheduling department, some information is lost. Schedulers keep many details in their heads and there is no really foolproof system for seamless transfer of the position from one scheduler to another. This creates tension and strain for the aides.

> *It is stressful when there is a change of administration. When we get a new scheduler, they don't know the things that have happened. I had to tell her that I have already rolled my car twice in the winter. I am not going to do the longer trips. One scheduler might know this, but the other doesn't because the information was not passed on. There are other staffs that are new. (Victoria)*

*A Union?*

Most home health care workers are not members of unions. Only in two of the agencies did aides work under a union arranged contract. The aides I spoke with were not active in their union nor did they have a high opinion of what unions do. One aide held a negative opinion of the unions. She maintained that you mainly use the union when you have been written up. Furthermore, she believed that the management could be trusted, so she saw no need for a union.

> *It doesn't make any difference to me. We have the same union here as we had in the nursing home. At they did nothing for me. They took my money, and they did my taxes once a year and that's it. I never needed them. I never got in trouble. It was $17 per week at the nursing home. And I never use them at all.*

> *Instead, I think they should be fighting for us to get better pay and better vacations and things like that, but it seems like you only see them if you are in trouble. It's part of the discipline. The union hasn't done anything and at the same time I have confidence in my management for doing things for me. I can call them. Our supervisors are great. I would trust them before I would trust anyone in the union. (Nina)*

Another aide in a different agency was simply ambivalent and unclear about what the union might be accomplishing currently. She expressed that the union used to be more active around safety and health, but the home health aide that was active in the union had left, so activity around the union basically ceased to exist in her absence.

## SUGGESTED IMPROVEMENTS

Near the end of each interview, I summarized the main points that the interviewee made during the hour long interchange. I reiterated the research questions, stating that we were making connections between stressors and health. Then I asked them if there was anything more we should be talking about that we did not cover and I asked them what they would like to see change about their work so that it could be healthier for them. Almost all of the aides instantly blurted out something about money with some good humor and even some open laughter, as they do not expect they have much control over their pay rates. But that it was central on their minds was quite clear.

After establishing remuneration and health benefits as the most important items, they often had insightful remarks about what could be improved. One aid requested a professional bag for the carting of supplies into and out of homes. Another aide gave a description of the problem of deskilling, citing that the jobs in the health care delivery seemed to require less and less skill

with accompanying reductions in pay for those jobs with less responsibility over the years. She contributed a vivid description of the deskilling with an accompanying account of exploitation of immigrants and poor interpersonal treatment of minorities.

> *Now I noticed that in the medical field they are trying to save a penny by cutting up the jobs. RNs disperse the work to people underneath them… cutting up the jobs. Then, they pay immigrants less to do that work because they don't complain. I have seen it where RNs are doing absolutely nothing. She was being paid $34K to point her finger. The RN would tell the aide or CNA what to do. The home health aide then has to do it. They are cutting the professions up and paying less money and yet the lower person ends up doing more than the requirement. Everybody is underpaid in the low-skilled jobs. These are not considered real jobs. We are called low-skill and we are treated as maids. And even from within the profession, if you are a minority, you will be very much insulted. (Diane)*

One of the seasoned home health aides suggested a basic plan for the provision of vacation time.

> *If this is an in-service and there is a griping session, mine is always about vacation time. Because I just think that people should have two weeks of vacation. Like in retail, they average the hours you work to figure the vacation. When I started, I didn't think I would be doing this job for this long. Why can't the person can get a certain amount of vacation after so many years? Say you done this work for ten years. I think are entitled to more vacation than somebody who just started. (Beatrice)*

Another aide's comment sought to address transportation issues that are very hard on the aides. Her idea was to alleviate both the transportation to and from work and the transportation between clients throughout the day by using a bus service.

> *Why not build a contract with the bus company to pick up the home health aides? They could also create him a transportation system where aides are dropped off and picked up to relieve each other. One person drives the car around all day to*

> *take care of all the transportation needs of their assigned in the day. Then there would be fewer excuses for being called off because there would be a ride available for them. If it helps people get to work more, then it might be a good idea. (Monika)*

A frequent theme in the interviews was summarized in this answer from an aide about the initial training and how a simple change would have alleviated significant anxiety in the beginning of her employment as a home health aide. She also addressed the frequent complaint of isolation in her commentary. Another idea she shared for the ongoing education of aides was to develop a comprehensive binder for each home health aide.

> *In the beginning I was nervous. I was more scared of this. You have to take care of someone. I wish I got to shadow more. I wish I could have trained with another aide a little bit more. Maybe a mentor program. Perhaps if you had a model aide as a go to person. I feel isolated and I don't know any of the other aides. They need more ways to open up communication.*
>
> *There could be a binder that would describe policies, procedures, supplies, and resources about who to call, reminders, pictures of catheters, reminders of how to do use the lifts. There could be a section for your in-services papers. You'd be able to add to it. Tips and tricks could be listed. The manual would be accessible for the aides. For example, last year I had a needle stick injury. I was freaking out on the inside and of course it was on the weekend. And I didn't know the protocol. I wanted to write a policy of what the steps to do. (Esther)*

Recruitment and retention is a "wicked" problem in the home care industry. Aides are concern about the selection of "bad people" into the occupation and poor communication about what is expected of the incoming home health aides.

> *Better recruiting is the first and foremost. We have had so many girls come in here and they cannot do this. It's either the travel, the snow, or that five people in the day is too much. So it's always something. (Stephanie)*

Aides registered concern for their fellow aides as they are likely to experience burnout from erratic schedules, emotionally draining work, and poor communication about changes.

> *Turnover from aides getting burned out needs to be thought about more. Why did they leave? They left because:*
> - *They got a better job.*
> - *They experience their own failure to meet care needs of patients*
> - *They are a grandmother who needs to care for grandkids*
> - *There is no set schedule and that made it difficult for families*
> - *They have emotional burnout*
> - *They can't overcome poor attendance records*
> - *They have other family care needs.*
>
> *Also, I wish there would be improvement in the orientation of new people. Another problem that needs fixing is that policy changes are not communicated until you are directly affected. By then it's late to learn about the change in pay, hours, benefits, extras. But, people are planning on those. (Margaret)*

One of the aides spoke to a larger issue. Uneven application of criteria used for determining patient service levels is very obvious in the community. Many aides bring up this issue as they notice the social injustices related to unequal access to long-term care.

> *I see people who get a lot of care and they don't need it. I see people who need it and don't get it. Some get housekeeping and just getting their back and feet done. When you are not there, they do those things by themselves without any help. So that is an issue to me. It's the way thing are. An example was that once person who had congestive heart failure and she was on oxygen, but she was young spirited. She had us three days a week. There were times we went there and she already showered. And she would have us do housework that was really already*

> *done. It bothered me because she didn't really need us. And this was in contrast to cases where there was someone who could not even eat on their own, but could only get service on Monday, Wednesday and Friday. (Laurie)*

## RESULTS SUMMARY

Believing that much can be learned from asking workers themselves to express themselves about the work they do, these interviews explored work-related stressors unique to the home care setting. Home health care workers gave replies to questions designed to elucidate both known and unknown work-related stressors. As such, the home health aides were asked about work arrangements, wages and hours, working conditions in the homes and in the community, work demands, autonomy during the work day, workplace support, the meaningfulness of their work, their approaches to belligerent and flagrant discrimination, and how work and non-work life interact. Workers emphasized their main stressors came from the families of the client/patients and that their struggles to survive financially are beyond demoralizing as they cope with precarious hours and difficulty keeping a car on the road so they can travel between patient/clients reliably.

Registering their serious concerns about workplace violence and sexual harassment, workers also shared about their work musculoskeletal injuries, and their attempts to utilize the workers' compensation system. They emphasized how their training could be improved and spoke quite fervently about their ongoing need to combat isolation from other workers, especially for ongoing training activity. Finally, workers gave details about the way trust is engendered with people needing highly intimate personal care while suffering protracted physical illness, serious mental illness, and/ or impending death. In summary, this chapter

advances the voices of experienced home health care workers who offer a uniquely seasoned perspective on the working life of the fastest growing low-wage occupation in the United States.

# CHAPTER 6

# AGENCY LEADERS' PERSPECTIVES

Because work-related stressors do no occur in isolated from organizational pressures, interrogating home health care agency leaders about the way stressors "trickle down" to home health aides generates new information. Home health care agency leaders gave interviews as a part of an overall research protocol that also included observation of agency operations and interviews with home health care workers. Syracuse University Professor of Practice, Dr. Thomas Dennison, fostered connections to nine home health care agencies and I made arrangements for forty-five interviews. Twenty-five home health aides granted interviews. While visiting the agencies, I conducted 13 interviews with agency executive staff at the highest levels of the organization and 8 with nursing professionals who supervise home health aides directly. Agency leaders participating in the interviews are not named, but rather pseudonyms are used to indicate their contributions. Connections to agencies were also developed via Mr. Al Cardillo, Executive Vice President of Policy and Program Services at the New York State Home Care Alliance, an organization that advances home care agency interests statewide.

Agency leaders were all women and very few men were involved in the executive levels of these nine agencies. Most of these women held a designation or either "executive director" or "chief executive officer." These women generally assumed a mentor-like stance toward me as junior colleague. In some cases, the women assumed the posture of the "agency representative," desiring to represent the history, achievements and challenges of their agency with clarity and analytical strength.

Overall, agency leaders were generous with their time. Interviews were generally about ninety minutes, although some were pressed for time and gave interviews as short at 45 minutes

and as long as two hours. Interviews took place on site at the agency in the agency leaders' offices. Generally these offices were well equipped, well-supported by staff, and indicated the leadership role by their location, size, and signage. Formal business attire and etiquette were *de riguer* in larger agencies, but in rural areas surroundings and staff deportment was decidedly more casual.

Semi-structured interviews proceeded in relaxed manner. Most interviews began with the interviewee discussing their work history as an ice breaker and these "journeys to the top" were often illustrative of the history of home health care. Their professional and personal stories gave rich historical context. In addition to asking leaders to identify agency-level stressors that impact home health aides, I asked leaders to cover issues and questions most pressing to them in their day-to-day work. In nearly every case, I was able to move freely inside the agency, observe different departments, and ask people about their work briefly, and their thoughts about how agency-level factors were having an effect upon home health aides' work. The aim was to discover how policies, practices, and even the unique stressors faced by the agency leaders would be visible in the operation and connected to the aides' experiences of job strains. I was able to speak liberally with schedulers, human resource professionals and other public health professionals in the course of the agency observation.

## RESULTS

The central focus of this study is the impact of work-related stress on health in general and occupational health more specifically. As noted in Chapter 5, the qualitative results elaborated upon the themes presented in the quantitative study. Home health care agency leaders addressed each of the study themes. I report both types of findings using the same organizational

structure, but discussing results related to work arrangements first, followed by results connected more directly to work-related stressors at the worker-level and the agency-level:

1. Socio-Demographics
2. Work Arrangements
3. Work-Related Stressors – Worker Level
4. Work-Related Stress Buffers – Agency-Level
5. Agency Characteristics

## Socio-Demographics

### *Gender and Age*

Even though each agency was made up nearly entirely of women, these women all referred to the home health aides as "girls" or "my girls" if they were supervising them. At no time did anyone seem to notice this or object to the dismissive and unprofessional term. This practice seems to engender a friendly and sisterly tone, perhaps deriving from the nursing hierarchies, however it might be noted that the men are not called "boys" and the "higher ups" are called "higher ups" by the aides, not "girls" demonstrating power dynamics, firmly in place in this primarily female dominated industry.

As expected, agency leaders make clear that aides tend to be women and often women of color. Contrary to public impression, however, aides are older. This presents a clear concern, especially because of retirement rates.

> *According to our data, the average age of a home health aide in our organization is 51. (Deborah)*

> *Our home health aides are aging out. That's one of my greatest worries. (Mary)*

## Work Arrangements

As stated in Chapter 5, work arrangements are usually defined as the agreement between employer and employee about the details of the work to include: what the work requires, what hours will be kept, the location, the pay rate and specific work conditions and other details. For this first section of this chapter, I continue to apply a wide definition to include what skills home health care workers generally bring to their work and what conditions employers provide. Agency leaders' perspectives give contextual information, especially when juxtaposed with home health care workers' ideas. Work requirements, wage rates, benefits, and other details related the work environment is inextricably linked to the experience of stress on the job.

### *Home Health Aides' Scope of Work*

> *I think if given a choice, people would rather be at home and convalesce at home rather than be in a facility. But, this has been something that home health has dealt with since its inception. (Louise)*

When people need to be assisted and cared for due to health concerns and/or the effects of the aging process on the human body, most of the time, families (and, to a lesser extent, close friends) care for their own members. When the care needs exceed the family's resources or when there is a preference for an exterior source of care, paid care work is required. Many elders hover on the edge of barely being able to manage independently either due to advancing age or from recovering from an illness. Hospitals and families face the question: Can the individual learn to care for themselves under new conditions of failing health? Or will they need help?

Home health aides have always been filling the gap, doing things in homes for individuals and in essence, serving the entire family unit. They develop relationships and become

a type of extension of the family. Almost universally the agency leaders and the aides themselves say they enjoy their work and they experience a tremendous reward for their activity rendered on behalf of other people. They are characterized as people of compassion and express deep satisfaction in their skill of developing individual approaches that change with each person they serve.

Aides engage in developmental learning in their training and on the job, ultimately developing advanced skills that are typically expected from university trained professionals, especially as they interact with and develop approaches for the client in the context of the family/community. Home health aides must manage a variety of circumstances and still accomplish the care plan established by the physician and registered nurse supervising the client/patient.

*What Do Home Health Aides Do?*

Home health aides provide essential but non-medical care for people who cannot engage in their own care well enough to attain or maintain good health. After a doctor develops a care plan, a registered nurse supervises the case and a home health aide is engaged to assist with activities of daily living, such as bathing, dressing, cooking, eating, toileting, and maintaining basic order in the home setting. Patients have varying degrees of independence, and aides work to foster or maintain as much independence as can be managed. Care being delivered might be short-term as a patient recovers from an illness or surgery. Care may be long-term, if a disability persists or if disease progression or a chronic condition is producing mental and/or physical deficits.

Before a patient can be discharged from hospital or rehabilitation facility, a dependable caregiver must be identified. If there is no family or friends who can complete the necessary care

or supervision, then home health care fills the gaps. Most of the agencies are conducting all home care services in the English language, but not all. Some have bilingual aides and offer services in Spanish or Russian. Most of the time, English works out fine because there may be family members around to translate and aides can learn just enough words so that they can do their jobs.

Cases are established almost daily and some last for only a few weeks, but others may last for decades, depending on the nature of the disability or care needs. When a case is established, the goal remains to avoid re-hospitalization or institutionalization in skilled nursing facilities. The aides must perform care plans for many different types of patients. The aides must understand what is permissible under the care plan and these may vary depending on the insurance payer.

> *Our goal is to keep the patients at home. We are trying to avoid them going back to the hospital. The aides here cover all the patients. We don't have one set of aides that cover stroke patients or cardiac patients. They cover all diseases and all entities of payments. We have private pay. So we might have an aide that goes to a Medicaid patient at 8 a.m. and then to a private pay later. (Rita)*

Home health aides enter home settings and integrate with family or personal routines. They develop rapport with the patient and the family members and form social bonds. Home health aides navigate a complex set of circumstances that change, day to day, week to week, and even month to month. Patients are almost always emotional due to the changes in their symptoms that are likely painful, their independence levels changing and the consequences of having strangers in their home.

> *You are going into their home. That's where it takes a certain individual to be a home health aide. That person must really be confident in themselves to be able to make that adjustment because every home is different. Every dynamic is different. Some patients can be either upset because they need help because they have never had to have help before and they can be very stubborn saying they can do it themselves but they can't so they have to work through that. Sometimes it's not the patient themselves; it's the family members that get irritated. So the home health aide must be able to manage in different types of circumstances and still be able to accomplish what they need to do. (Deborah)*

> *We throw them out to the wolves. They don't have a high-level training. We do try to empower them, if they have problems. They are the ears and the eyes. They are going to see things at the nurse is not going to see, but they also have to maintain decent rapport with the patient and report things in the way that they don't ruin their relationship with them.*
> *(Jessica)*

*What Makes a "Good Aide?"*

Agency leaders, understandably, want to create an effective workforce that serves their mission to provide quality care with enough efficiency for the agency to remain viable. In meeting patients' needs, the agency leaders shared from their long years of experience about the set of characteristics that make aides "good." Basic skills are always emphasized, especially communication skills.

> *If someone can communicate well, then people are made to feel comfortable with them and they will allow them in, to help them. So they have to want to be there, and be relatable. And then of course they must have the physical skills and understanding to do what they need to do. The skills are with personal care, giving baths, bathing, transferring, feeding, dressing, doing range of motion activities, care of a Foley catheter, care of ostomies, and skin care. (Cora)*

Most agencies have ways to screen out aides they do not believe have the potential to live up to their standards. While they look for skills and dependability, most agency leaders focus harder on personal qualities of empathy and they look to obtain and retain aides with an internally driven motivation. They want aides who find the work intrinsically rewarding. Most frequently this is expressed as a "special kind of person."

> *I find that you have to be a special type of person to want to do this. We can never pay them enough. It will never be about the pay, but you have to have a heart. You have to sincerely want to help someone. You see them in a total different scope. You see them at home. You really see how this person lives and how they really can't make healthy eating choices; they really can't get to the bathroom all the time; and you understand that's where we come in and we know what we have to do. (Betty)*

> *It's a matter of an inner drive. That's the reward. (Mary)*

> *The first thing has to be purpose. Are they purpose driven? Do they enjoy working with the elderly? It is typically a calling. So if they have that drive right off the bat, then you are good to go, in most cases. So that is the first thing that makes a good worker. (Cora)*

Agency leaders say that aides are valuable if they are trustworthy, caring, and conscientious. A "good aide" displays interest and curiosity about the patient, their conditions and their circumstances. Increasingly, they are finding that individuals of a mature age are more likely to serve the agency needs well.

> *They're so hard to find. Maybe I have a very high bar. I think, I do, my aides are excellent. I don't really have problems with them not doing what needs to be done*

*even with no eyes watching them. You don't have to worry about them going into the house with a demented patient and not bothering to vacuum and then later saying you did because the patient wouldn't know what you did or not. They are honest, upstanding people. They are doing it for the right reasons.*

*Many of them feel that they are doing this because they love what they do. They say, "I don't do it for you. I do it for the people." The girls will ask me, "What is this disorder that so-and-so has?" And I'll print information out for them. Or I will talk to the patient and kind I will glean why the disorder is causing the symptoms and so I educate the patient and aide at the same time. (Brenda)*

It was not unusual for agency managers to speak about their aides' religious beliefs as an influence on their work. While some agency leaders in a large religious operation believed the aides were more religiously motivated and one might expect this when the work is part of a large denominational health care system, but it the discussion of religion as a motivator was also very common in other health care settings.

*We recognize people who demonstrate true love and compassion for their patients come in very often you have home health aides come in and tell incredible stories of what they have done. They will receive the love award for that. And it's amazing. We have had home health aides that work here for over 20 years. When I worked in for profit, it was a revolving door - seven years was the most anyone worked there but people in this organization have worked here 20 years. I think what makes us different from the other places I have worked is the common mission around doing the work of Jesus Christ. Because there are people who come here to do that work because they believe that caring for people in their homes and doing the things that they do is truly God's work.*
*Those who have been working for a long time have developed whole way of going about their work and there is a religious foundation. Religion has been pointed out as an important component of why people engage and stay engaged and find meaning and do it beyond just the money. I don't think our turnover rate is much different than others, but we have a core group of very long-termers. (Rose)*

One experienced agency leader summed up the scope of the home care work, the characteristics of a "good aide" and the "extraordinary people" who do this work. Her comment intertwines these themes and demonstrates why the home health aide – as an integral part of the care team. The care delivered is vital, complex, and necessary care, signaling that increased professionalization including higher pay rates would be an appropriate goal for policy makers and healthcare system decision makers to incorporate in their decision making processes.

> *The home health aides' must have a willingness to serve people in a way that requires them to have very strong communication skills and personal integrity and an interest in caring for people. Some may have done other types of work and they are employable and other fields, but they choose to do this because of the personal nature of it. They want to make a difference in someone's life. They see it as a vocation, in some cases. You can get a little bit of both.*

> *The home health aide is a paraprofessional type of work that while being extremely important to the patient, unfortunately doesn't garner priority of the payer system. Reimbursement for home health aide services is low, which unfortunately keeps the wage low. They don't have assessment skills. They don't have diagnostic skills. They have care giving skills. And they make a huge difference in the lives of patients because it is a very intimate, personal type of work when you are feeding someone or bathing someone in their own home. It is a personal experience, and it takes extraordinary people to be able to enter into someone's private space.*
>
> *Patients have to give up and often are forced to give up because of their disability or condition and so it becomes a high trust relationship. You have to let someone into that space, and so as an agency we take that responsibility very seriously. (Emily)*

*Home Health Aide Skills: Beyond the Basics*

Some of the more impressive discussions resulted from my curiosity about how aides are able to manage the most personal aspects of home care, such as bathing that includes thorough cleaning of private areas of the body or feeding that requires patience, timing and possibly even food selection and preparation in ways that the patient can accept. Since professionalizing the home health aide role is a shared goal among the agency leaders, it is not surprising that they paid attention to the types of activities performed and the skills required to be successful, whether these skills come through life experience, job-related experience, formal training or informal training.

Navigating the patient's various conditions requires insight, skill and methods. From the conversations I had with both agency leaders and home aides themselves, I observed nuanced patterns emerging as the pathways were cleared and connections were built between the patient and the aide. The end result was an ongoing trusting relationship that supported established care plans and fostered preventive modes of operation in the home.

> *The client is often in denial and you try to get personal care done in the first visit, but if not, then perhaps in the second visit. Sometimes it takes a bit longer to get that trust built up, but then it does. The bath is tough. In fact, here you are and you are fully clothed and you are looking at this person and the only person she has ever had her clothes off in front of is her husband and now here you come and you want to help her with this. For example, our home health aide, Joe, is generally patient and quiet and allows the person to adjust to their new situation. We have to show aides respect. And then they show their clients respect. We want them to be able to do personal care in a way that demonstrates respect to their clients. (Betty)*

The basics of home care provide the foundation of health and the work of the home health aide is to artfully and efficiently complete very basic care.

> *When I think back about how much you rely on the home health aide to be the linchpin to bring that plan together because unless you're going to meet the basic needs of that patient and I'm going way down to the basics like feeling clean, feeling fed. If you don't fill those basic needs, then how would you expect to be able to improve the life of the patient? No one is going to be receptive to any kind of teaching you are going to do if they feel really lousy. And something as simple as having your hair combed makes a big difference. (Louise)*

Navigating the social, medical, and logistical complexity of each case, home health aides develop an awareness that takes them far "beyond the basics" of a case.

> *Good aides are very committed to the notion that "it is their home, their life, and my tastes and likes and dislikes are not important." They will be very personally sensitive. They know what to talk about. They remember that they are a guest in their home. Everybody doesn't live the way we live. You can offer help, but some people are happy with their home the way it is. Going in and deciding to clean up or organize them may be offensive. It is their domain, their property and you are just coming in to help them. (Kim)*

From my discussions with agency leaders, I was able to characterize the occupation in a more complete way. It became clear that home health aides gain an appreciation for and ability to function around sensitive topics, such as the end-of-life or personal relationships. Personal care is conducted as an art form. Social interaction is established, built and maintained. Agency leaders are aware that aides often have good command of  about things well beyond the basics. For example, they talk about how they are managing end-of-life care together with their patients. They are on a journey with their client. They also speak about how much they learn at their job.

They are learning from the older people. They are learning from the relationships. Aides go out of their way to meet the needs of the person, while also giving them their choices so that they are participating in their own care.

*Hours*

As a central component of the work arrangement, hours are generally of utmost concern to employer and employee alike. The number of hours one is expected to work in one week and the schedule of those hours is generally set by the employer within the aides' previously stated availability for work. For home health aides in most organizational settings, the work arrangements are quite different than other jobs.

As was explained to me by the agency executive leaders, hours for home health aides are based on concepts of reimbursement rates provided by the patients' insurance, not on specific time that it takes to do the work in any given day. While most jobs are slated for a shift, home health aides' hours are configured around cases and the hours spent on site. This contrasts with other health care providers of similar levels that provide care within an institution where a shift is determined between set hours and tracked by punch cards or other means for logging when workers are working. How the hours are set and tracked is more complicated than most occupations and opportunities for wage theft increase with this complexity.

> *My girls work long hours. Sometimes they work a day and half hours in a day and they get almost no lunch. Most days they do 5 to 7 clients. (Brenda)*

In each agency I visited, specific staff was assigned to schedule the group of home health aides. In the smaller agency, this may be one person, but in larger agencies a team of 7-10 people

would work in one room or area of the office. These schedulers played an important role in setting up day-to-day operations. While the hours were set and patients were brought on board for care by others in the office, the scheduler has the responsibility of coordinating the home health aides' workloads, logistics, and types of clients.

Most home health aides in these agencies had specific formal arrangements with regard to availability and geographic area they would be willing to serve and these home health aides also had other types of less formal preferences expressed to schedulers. These might include details that would accommodate their fluctuating childcare arrangements, children's sports schedules or more details about locations or types of clients (i.e., willingness to serve patients with Alzheimer's disease or patients with pets).

Keeping the overall mission to provide quality health care in mind, schedulers' main task is to maintain efficiency for the agency while keeping home health aides' requirements and preferences in play and creating workable schedules.

> *They are considered per diem. So they can stop working. They don't really owe us a lot. And we don't owe them a lot. We have a handful of them that are guaranteed hours so they get paid 37 1/2 hours. We don't have many of them. The schedulers must keep their schedules full. (Rita)*

From my direct observation, the schedulers cope with logistic complexity in a fast-paced and swiftly changing environment. They must balance the patients' health care needs, the aides' expectation for enough hours to meet their expenses and yet not exceeding the thresholds that threaten to cut off their social services benefits. They must adjust the schedule due to variations in both patient care needs that also vary and aides' availability, which also varies.

> *It's a nightmare. Every couple of weeks the schedulers get to learn again who is changing their hours and their availability. We do really trying to allow them to take days off. We ask them to give us 48 hours' notice if they want a day off. Sometimes in the summer we are not able to give them the day off. If there is an unscheduled sick day, that will count as an absence. When there is a scheduled off, it is not counted against them. Many of them don't have paid leave time. And they don't care. They don't get paid for the time they are off. (Rita)*

Ultimately, these "feast or famine" conditions are such that aides may work more than the law allows because the demand for services is pressing on the agency or, alternately, aides may not be assigned very many hours because patient care needs vary.

> *One of the main stresses is that paychecks are unstable because the aides cannot get enough hours. Only 5 of the 220 home health aides are guaranteed full time hours. (Olive)*

> *There is no guarantee of hours. And that has to be the most stressful thing. They have to manage their schedule and it's a stress on the coordinators as well to make sure that they are getting the amount of hours that they want so they will stay in the workforce.*
> *Scheduling is a challenge. They can show up at a patient's house, and no one's there. We do pay them for that, but that's a stressful part. If they have ridden the bus, they have to get back on the bus, and find their way to the next case. And what should they do for the next two hours while they are waiting for that next case.*
>
> *So the nature of the job itself for a low-wage worker, without a car, without another income, is just stressful. I wonder myself why they would take this job when they could work at McDonald's for 40 hours. (Cora)*

Some of the agencies had a tiered system that guaranteed selected home health aides full-time hours with benefits. But, these work arrangements often had stiffer travel requirements or required the aide to be more accepting of difficult cases (i.e., patients with Alzheimer's disease). These positions were usually reserved for long-term, seasoned aides who were particularly devoted to the agency and often made special sacrifices, such as being willing to be called in on very short notice or consistently being willing to work weekends. Aides working "per diem" would be able to turn down assignments without much penalty, but these more permanent aides would have to accept all work offered to generate the 40 hour week.

*Wages*

The rate of pay was the single most pressing stressor noted by agency leaders. Of utmost importance and frequently weighing heavily on the minds of agency leaders was the pressing need for a solution to the problem of low pay for home health aides.

> *We wouldn't be able to exist without the home health care aides. The only thing you need to qualify it is a high school degree, but in many times it is the lowest pay. (Betty)*

> *It's their salary that impacts them the most. They are not able to live on the salary they make. They are an essential part of the home care team. They work the hardest. They are paid the least. (Brenda)*

Almost all agency leaders reported that their aides make low-wages, and that they are pressured to keep pace with wage rates offered by other agencies and with other low-paying entry-level work.

> *We've tried to be competitive and at some point we thought we were the top notch, but we found out we weren't. So recently we increased our pay rates by $2.50 per hour. Once we realized we were not the top anymore we increased it to $12.50 an hour. And we know that because they have changed it for fast food workers. We know that is going to affect homecare. So we try to stay ahead of that curve. (Betty)*

Workers in unions had higher starting wage rates with better benefits. Agencies with higher starting wage rates could boast higher retention rates and claimed that the presence of the union did not pose any challenges or problems for them. Negotiations were generally smooth.

> *They start at $14.26 per hour. At step one. And they are CSEA. And they have always been CSEA. And that happens to be step one of our 2016 schedule. (Jessica)*

In general, no uniform set of criteria was established in the establishment of wages. Wage rates often started very low and raises were small and rare. Agencies usually had some kind of system that rewarded aides for years of experience. Aides with more than a decade of experience generally were making between $15 and $17 per hour.

> *They have to start at $10.25 per hour because we have a contract with the government. My highest paid aide is making $17 and change. She is making what an LPN makes. (Brenda)*

> *We start people at 11.50 per hour. One year ago we increased everyone's rate by $1. Some make close to $15 per hour. There is a range. (Patricia)*

Agencies generally covered a large geographical area and aides are reimbursed for using their own cars for so much travel. Some agencies feel compelled to create a unified rate across large

geographical area and across different types of patients. This pressure tends to create a lower wage as the agency tends to choose the lower starting rate for all aides to create a level playing field for new employees. Other agencies simply allow some aides to negotiate higher starting rates due to their experience or their willingness to take on geographically dispersed cases or harder cases.

*Benefits*

Most agencies offered benefits for full-time aides, yet most aides were not working full-time. Benefits included retirement plans, health insurance and formal employee assistance programs. Some agencies provided benefits to aides who qualify (usually full-time aides only), but openly acknowledged that most do not participate in the health care plans or retirement plans because they were too expensive. In general, home health aides were trending toward participating more in the health care plans, especially as they age.

> *We offer a single high deductible medical benefit plan for no charge. We are seeing more and more participation. Nowadays we have to offer it because of the ACA ruling. (Deborah)*
> *I don't have a lot of turnover in our aides, because we have a higher pay grade and benefits. In our agency they get sick leave, vacation, and leave credits. If they have to take time off for a sick child or parent or themselves, they go without pay. (Jessica)*

Agencies varied a great deal with regard to benefits with some offering attractive packages. Other times, benefits were eroding as the agency reduced or removed benefits to cut costs.

> *We have had to make some changes in the benefits home health aides get over the years. When I first started working here, they had the same benefits as all the other clinical staff. That year, we took away their paid time off and their holidays.*

> *They were extremely unhappy about that, of course. Since then, we have been able to add paid time off to them and we've given them seven days a year, but they still don't get holiday pay. They can't "comp" their holiday time. If they work on a holiday, they get time and a half. They don't get paid holidays. (Patricia)*

*Perks in Lieu of Higher Pay*

Over the years, home health care agencies have faced difficulties retaining home health aides in general and have had difficulties with the morale of those they manage to retain. Struggling also with maintaining standards, agencies that were not able to pay aides more or offer more attractive benefits packages, do expend some resources on value-added perks designed to appeal to aides.

Most home health aides work per diem, retaining a high degree of flexibility in their availability for work and they retain the ability to refuse work that is offered within certain parameters that are defined by the scheduling managers. Often, what this means practically is that aides can decide to work in a limited way and can dictate specifics about the hours, days and types of work they will accept. The downside of this is that aides that are too restrictive may be called upon for work less frequently and end up dropping out altogether because they are not given enough hours and they need to find steadier work. But, for many, the limited arrangements work well – for example if the aide is working full time elsewhere and just wants to pick up work a couple of nights per week or only on the weekends.

In addition to the classic flexibility that home care work is so well known for providing for aides, other perks are offered in an attempt to create a sense of good will on the part of the agency. Holiday parties, summer picnics, and awards events are promoted with free food and planned activities.

> *We have tried to support them as much as possible. We do monthly in-services, and we feed them during that time. It is dinner time, so we definitely have pizza or subs or something good. So that when they come in, it allows them to bond with one another. They do like those meetings. It will be a catered recognition dinner. (Brenda)*

Agencies also go a bit further with these perks by adding monetary value to what is offered, especially at times of peak financial stress. These bonus perks are framed as gifts and agencies want to be perceived as generous caretakers. There is an attempt to provide a loving, nearly paternalistic element by providing gifts and personal appreciation for the aides. Agency leaders work hard to develop these events and programs, providing the extras that are "above and beyond" what is required by law.

> *We have tried to make sure that when its Christmas time, we give out American Express cards right before Christmas so that the aides have some additional dollars. Paid Time Off (PTO) cash is another thing we've tried and put into place. Four times per year you can cash in your PTO bank, if you feel that you're not going to use that. We do it two weeks before school starts. There is a timing responds to their needs. It gives them the ability to say if they have the opportunity and if they have the PTO bank. They can cash that in. We don't do that for everyone. We do it for the home health aides. (Deborah)*

*Work-Related Health Hazards: Environmental Conditions on the Job*

Health hazards not only present specific threats to health, but the presence of the health hazards or the potential for those health hazards or even the perception of those health hazards does lead to additional stress on the job.

As we have noted, home health aides face a wide array of potential dangers when they first enter a home – and may experience poor air quality, overly excited pets, dust and dust mites,

bedbugs, second hand cigarette smoke, violence and harassment from the patient or the family members, and exposure to sharp objects and sharps used in medical testing (i.e., diabetes testing). Most agency leaders acknowledged that there is increased tension at the home when there is general filth that can accumulate when an aging or sick person has not been able to complete basic housekeeping for some time prior to being established with home care.

Agency executives were quite aware of the basic daily working conditions faced by the home health aides they employ. They related that outside the home, the aides faced all the hassles that come with being exposed to the elements and traffic when driving between clients. Heat exposure, winter weather conditions, heavy rains or fog, poor road conditions, disorder in the community, crimes in progress, or other unpleasant conditions are experienced daily. Motor vehicle accidents occur annually within the larger agencies. The potential for car issues produces tension because the financial hit that home health aides bear when their car has issues or is placed out of commission is disproportionately harder for those with low wages.

> *Due to winter storms, they do end up having to do extras not in the care plans. The aides have to shovel their sidewalks even though they are not supposed to do that because they want to see the patient and the only way in is to shovel. During one storm we had the National Guard come and shovel in order to get us in some places. They have taken people food. They cook for them. They stop and pick up groceries, milk, bread, juice. All the folks have done those kinds of things. They are exposed to the elements if they ride the bus and if their cars don't work well. If they are driving between places and they have to contend with the weather. (Terry)*

Additional hazards include the potential for slips, trips and falls. In the home, there is always a stronger temptation to cut corners with regard to safe patient handling practices because

extra helpers and Hoyer lifts are less readily available and there is less supervision to enforce appropriate lifting techniques.

> *I've had aides come in and tell me that their back is killing them and they can't work anymore. And then they tell me that they've been lifting or transferring someone alone and he's too heavy. The physical abilities that they have to have in order to not get injuries are incredible. We are dealing with some patients that are very obese. Some of them are 300, 400 or 500 pounds. And you are alone taking care of them. Nursing homes have a two-person rule. But this is unheard of in home healthcare. If there's a two-person rule, we have to eat those extra costs. We have to offer it sometimes for the safety of this staff. (Marlene)*

*Interaction with the Agency*

Home care supervisors at the agency conduct day-to-day operations, oversee the scheduling staff, take calls from doctors' offices, hospitals family members and take referrals or make referrals. Admitting patients to service involves creating the appropriate team according to what is permissible under a wide variety of insurance plans. Each of these has rules that have exceptions and also vary over time.

> *In order to have a home health aide you have to have a nurse or a therapist involved who will formulate a care plan for you and your family member. That registered nurse or physical therapist will direct the care that the home health aide provides. The person admitting the patient to service goes through a scoring process at that time. It is based on the patient's functional limitations. What is a person able to do or not able to do and what is their level of function. How can they bathe? How can they dress themselves? How can they feed themselves? How can they get themselves to the bathroom? So they get a functional score. And I have to get to that magic number and those magic numbers tell us how many times per week a patient is eligible for a home health aide. (Jessica)*

*Workplace Hierarchies*

These hierarchies create order and define the tasks to be undertaken in formal health care settings. Often these hierarchies lend themselves to poor interpersonal relations between the different roles as nurses tend to emphasize their relative importance to those lower down in the hierarchy. These interpersonal strains can add to the already stigmatized feelings that aides endure and create a lack of teamwork. Even if lip service is given to a "good culture," leaders admit that aides often feel undervalued with good reason due to the way they are treated.

> *The nurses may make the others feel they are "just in aide." Some will feel that they have letters after their name and make others feel less important. Obviously credentials help but it introduces a hierarchy. We have a good culture here that works against anything like that. We say that the aides are the most important people because they are spending the most time with the client. They are spending two hours with that client. They get to see that client when they are most vulnerable. (Betty)*

Agency leaders discussed the formal and informal aspects of workplace hierarchies with ease. Nursing, as a profession, operates according to traditions of a well-established hierarchy. The doctor gives the orders. The nurse carries out the doctor's orders. The registered nurse (RN) is the central figure in nursing and some go on to become nurse practitioners, but most do not. Some go on to become nurse administrators or develop other specialties. RNs maintain a broader scope of practice than licensed practical nurses (LPN), who have shorter and less demanding training. Certified nursing assistants, nursing assistants, home health aides, and personal care assistants are paraprofessionals who assist the "real" nurses.

Home health care aides are assigned to a patient and care is established through a "direct placement." New York State mandates that this "direct placement" will involve a face-to-face

meeting with the nurse and the home health aide present. Due to further requirements by New York State, the RN reviews all activity that will be expected to be performed by the home health aide in detail. The RN supervises the aide either directly (or alternating with one indirect supervision visit such as an interview with the patient that assesses the aide's performance) every fourteen days. Every other time, the RN must supervise the aide with the patient so that the aide's functioning in the home can be verified. The nurse will come at the beginning or at the end, and she will watch her give her a bath, or watch her prepare her meal, so that they know it is being done properly.

A few agency leaders and department managers reported that there was very little difficulty between the RNs and the home health aides, especially because the roles and tasks were very clearly delineated.

> *The RNs and the aides work very well together. I can't even think of a time when there was a conflict between the nurses and the aides. The nurse goes out on the first initial visit with the aide and they go over the care plan and the nurse explains what she wants to see them doing. And then the nurse encourages patients to cooperate with the aide. And they developed a really good rapport with the client and with each other and with their family. Every once in a while you get a complaint. Then the family names what is the problem. Even if they say, "I don't like that aide. I don't like want them coming." Generally, if somebody complains that we just switch the aide out. (Vera)*

Most agency leaders acknowledged that there was a lack of respect for home health aides, especially emanating from RNs who supervise them. One agency leader reported a coping mechanism used by one of her seasoned aides who has run into RNs who carry out work in a condescending manner toward her. She seems to develop resilience in the face of poor treatment

by her colleague, not accepting the RNs analysis of her skills and fully realizing her own importance in the overall health care of the patient.

> *I like to see when there is a good relationship between the nurses and the aides and we don't always have that. If a nurse decides to disrespect an aide, then one of my aides, and the one that has been here a while but says things like, "you either can decide that you are going to listen to what I'm going to say to you or if you are going to react like you think that I would don't know anything, then I am going to pigeonhole you and say that I'm not than waste my time with that chick." (Kim)*

*Hassles versus Stressors*

This dissertation is exploratory in nature. Reviewing details related to work conditions, pay rate, work arrangements, and workplace hierarchies establishes baseline information that provides foundational information about basic hassles that become incorporated into a workers' life. In addition, understanding the scope of work, what the work entails, and how people relate to each other on the job provides context for the identification of any clusters or temporally related details. While these "hassles" may seem unrelated, they comprise a set of circumstances that contribute to the general  understanding of occupational stressors affecting home health aides in novel ways and may plan an instrumental role in the way hassles interact with what might be considered the more central stressors as identified by the agency leaders.

*Work-Related Stressors – Worker Level*

*General Stressors*

Agency leaders in touch with their workforce identify numerous struggles, that, when taken together, pose concerns for both physical and mental health. Some of the conditions of the typical working day, if experienced occasionally or in isolation would not constitute any real stress, but because they are frequent and tend to be present in combination with other stressors, the hassles experienced should be documented and ultimately addressed. Transportation seems like a basic matter, but conversations revealed a picture of intertwined problems that exacerbate circumstances in negative ways, making workdays frazzled or impossible to manage.

*Most of the aides' cars are barely running. They have a schedule that they have to keep because according to the Department of Health, a patient is supposed to get service say from 1 to 4, so you must be there at 1. But, most of them are coming from another case, so they get the stress and anxiety of getting caught in traffic. Say there is an accident and then they're not on time. Now their whole day is backing up on top of everything. So now they are trying to call the office. The office doesn't answer the phone. They try to call the front desk. They are getting this shuffle around when they are trying to let them know that they are going to be late for the patient. Finally, they get to the door. The patient opens up the door, and says, "I don't want service today" and shuts the door.*

*And so now I, as their supervising manager, am affecting their income because the only thing I can pay them for is a one hour show even though that case was slated for four hours of their day. So now they have lost money. Now it starts to escalate that because they are frustrated that you are affecting their income and they don't make enough as it is. It is a cycle. It's an unbelievable cycle that I hate for them to have to live with.*

*If they happen to have the luck of the draw and four or five patients during the course of the week shut the door on them, they are coming home with 20 hour paycheck instead of a 40 hour paycheck. We all know they live week to week, paycheck to paycheck. So, as a result most of them reach out to something. Most*

*of them drink alcohol, so they reach out for something to reduce their stress. (Anne)*

Agency leaders consistently report that it is difficult to prepare home health aides for the wide variety of circumstances they will face in the course of their work. Agencies cannot ethically select certain types of clients for intake. They must accept difficult cases that may involve unpleasant surroundings, difficult family members or awkward situations in which the family is asking an aide to do work or special favors that are not a part of the care plan. Then, if these are not done, it is common for these clients to make complaints to the agency about the aide's performance, causing the aide anxiety about how this type of complaint may reflect on the aide as an employee.

Commonly, the patient's family bombards the aide with unrealistic expectations. Often, in this scenario, the home is unkempt and the aide often does not have enough time during the specified visit to complete personal care along with all the light housekeeping that would be required to keep the home up to a basic standard of cleanliness and tidiness. Sometimes aides even have to work with clients who are hoarding. In those cases, the aide is instructed not to comment, move, or throw away any items. Aides are not permitted to clean out the refrigerator or work on their piles of trash in those circumstances. Another common problem in the home is the presence of pets that may be unpredictable, hostile, or contributing to a filthy environment. Aides also must occasionally deal with bed bug, cockroach, or mice infestations. Patients may smoke. Patients may not have been able to keep their home up for years prior to getting home care. Home health aides arrive to unpredictable conditions.

*The emotional position the aides are put in when they walk in that door. Because the person that they are caring for often has an abusive support system, or there*

> *are drugs in the home, or there are dealings going on in the home, or there are guns, or someone in the street just got killed in the street. As an aide, I am going down this dark street and I have to go in this house. Who can do this every day? Facing the unknown. Yet this is the expectation. (Anne)*

Nurses accomplish survey-like assessments, but the home health aide develops a better and more frank rapport with the patients. Patients tend to be on their best behavior when the visiting nurse is present. She is with the patient less often and completes a more formal, medically-oriented evaluation. The aide is often the first to determine subtle changes in cognition, appearance of the skin, or developing weakness. Aides frequently develop good rapport with their supervising nurse and are encouraged to "call with their gut feelings," as they develop intuition and knowledge about the client's condition, especially if they have been on the case long-term. The aide will report that the client is "not good today" or that "there's something wrong." Aides can sometimes get to the bottom of new or worsening symptoms if the nurse is unable to determine what's going on. They create communication between the agency and the client when things are going badly.

> *The aide likes the opportunity to be able to say that he/she is really concerned. And I often tell the nurses to pay attention to the aide because they are your eyes and ears. They are in the house longer than the nurse. The people open up to them and they will tell the aide things that they will tell no one else. When the nurse comes in, they perk themselves up and they sit at the table and meanwhile the aide may have found them dragging out of bed and they know more what the reality is. (Brenda)*

> *The nurse goes in and out and asks a lot of questions. But when clients are venting, they will vent when they are being transferred to the toilet or when they are in the shower. They need a sounding board. They tend to express themselves*

> *more when they are being supported and when they are in the most vulnerable spot. At those moments, they talk about needing a break or they just need to be able to say, ‘’why did this have to happen to me?” Aides are actually doing preventive mental health care. Most of the time, the clients are not seriously mentally ill, but it's just they are at a point where they are going to have to make changes in their lives. (Betty)*

*Karasek’s work-related stressors*

Most agency professional leaders acknowledge that the work of a home health aide is inherently stressful due to the heavy physical and emotional demands on the care giver. Agency leaders who supervise aides with an involved style of management generally held a more sympathetic stance in that they were quick to acknowledge multiple sources of strain.

> *I think they absolutely need to be compensated better. I feel like we have an expectation of a tremendous amount of productivity and I have to say that we booked them boom boom boom and at the end of the day, there's a potential that they could have seen seven different people and given every one of them baths and transferred them in and out and bent down for them. (Rita)*

The logistics involved with home health care create tensions between keeping a timely schedule and delivering quality care. Patients’ needs and family circumstances can change, requiring alterations in the way the care plan is executed. Traffic and other issues with the aides’ cars present additional difficulties as the aides must cope with circumstances that come up through the work day.

> *First of all the patient wants to know what is going on. They want to know when they are getting their bath. The State says we have to narrow down the time the best we can because the patient has the right to be informed of the time of the visit. But, then you have construction, and what if Mr. Smith goes bad? He fell, or he wasn't doing well, or his wife didn't come home on time so I could leave and I*

> *can't leave him alone. That means my next case is delayed and I'm calling the office trying to get 15 more minutes in this location, because the wife didn't get home on time due to the construction. So now the aide is late, and they call the next client Mrs. Brown and tell them that they are coming 20 minutes late. (Jessica)*

One of the most frequently reported stressors that home health aides experience is that patients have unrealistic expectations about the type of services that the aide is able to perform under the established care plan. Frequently, clients expect the aide to perform the services of a maid and they treat the aides like a maid, rather than someone who is a part of health care team. Aides tend to want to help the patient and keep them satisfied, so they feel tension between what the agency expects according to the care plan and what the patient believes they need.

> *I hate it when patients call in and say, "Where's my girl?" And I also hate when they say, "I am entitled and you have to give me what I am entitled to." It doesn't matter what the pay source is, they think that they are entitled to this maid, the servant, or the girl. But that's another stressor. (Jessica)*

The combination of financial duress and work demands can create unique stressors, given that the aide is working in the patient's home, where supervision is not frequently present. Supervisors report that home health aides tolerate problematic situations much longer than they should be tolerated because they are afraid to raise issues that might cast them in a bad light if their judgment is questioned.

> *They can't find the level of stability that they need. Or they have to work for two or three agencies because they can't get the work. I can't tell you the number of times that I have had conversations with families where a home health aide or a*

*personal-care aide will reach a level that they finally say enough is enough with what's going on in the household they are serving. But it takes, very often, a long time to reach that point because they are fearful of losing their job. (Rose)*

Long-term aides can be especially dedicated to the patients they serve. They will feel protective and highly responsible toward them in their vulnerability. Even when facing the worst of their own personal crises.

*I had a phone call under Sunday afternoon and it was one of my home health aides who was in jail. And he called me from the jail to tell me that he wasn't going to be able to go to the case that afternoon because he had been in prison. He was so worried about his position. He was very concerned about the individual he been taking care of for such a long time. He wanted to make sure somebody was there for him and he knew he needed him. (Rose)*

The aide's devotion can cloud their judgment and lead to degraded working conditions. Even when displaying such fidelity to their patient, they can and do experience difficulties with the client's family. For example, home health care workers are frequently suspected of stealing or accused of stealing when the patient or the patient's family is unhappy with the aide's performance. These scenarios are frequent.

*And then you have a family member who then filed a bogus complaint against them. And you have to put them through that and do that investigation only to find out that there was no merit to it. The real issue was that the home health aides finally told them, quote "you know what? I'm not doing the dishes for your four grandchildren. I am here to take care of you." I have had so many conversations with clients saying they are your personal-care aide, not your maid.*

> *I had a wonderful person and a great aide. She took care of a lovely woman who had a daughter that would leave a list of everything that she wanted done. She made her take the drapes down and clean all the drapes.*
>
> *This aide finally said to her, "I'm not doing that anymore it's not on the care plan." So the daughter called the agency and accused her of stealing a dress and another item. It was so unlike her that I knew there was something very wrong with this.*
>
> *She finally confessed that she had been essentially being their housemaid for the last three years. And I was saying to her, "Why did you do it?" And she said because I cared about the woman I was taking care of and I didn't like the way the daughter treated her, so I felt that when I was there, at least I was protecting her. (Rose)*

All of the agency leaders emphasized that aides have more difficulty with stress because of their relative socio-economic disadvantage that set the stage for snowballing difficulties when applying coping strategies.

> *They all have their own way of dealing with the stressors they go through all day long. I think one-third of them abuse alcohol. Possibly another one-third of them take out their frustration or anger on their family. I think the other third of them are possibly under a physician's care, being treated for depression or anxiety... (Anne)*

One agency leader described a time when the home health aides, as a group reacted badly to an internal policy change. Their reaction took her by surprise. But, the experience helped her to create better communication processes for future changes recognizing that the home health aides are not peripheral to the home care agency and should not be excluded from important changes.

> *We made a change here and it wasn't something that directly impacted the home health aides. But aides acted in the most vocal and emotional way. Our six were reacting to change and I forgot to provide them with the support. So we decided that once a week one of our professional staff will need to set aside some time for the aides to come in to the office and talk with her. That would be a big help. For our group, I wondered why they were getting worked up because it didn't even have anything to do with them, but they were worried about their job going away. They had seen the workforce reduced from fifty all the way down to five. So they were threatened by any systemic changes. (Jessica)*

One of the purposes for interviewing home health aides is to discover new sources of job-related pressure. While some of the better known stressors such as work demand are quite clear, discovering new sources of stress invites in-depth qualitative inquiry. What seems like a laundry list of hassles are actually potential sources of stress that may be involved in a unique or emerging stress processes. Observing and analyzing these hassles may reveal stressors with health impacts. At first glance, they may seem to amount to nothing more than a simple series of emotional circumstances, noticing how workers cope with ongoing workplace change, observing roles and hierarchies, or locating sources of power and potential injustice. Taken together or in combination with other factors, these stressors may explain some portion of disparate occupational health as they augment the insights generated by Karasek.

### *Siegrist's Effort-Reward Imbalance*

#### *The Lowest Rung*

Effort-Reward Imbalances occur when morale is reduced and other rewards are not enough to tip the scales back to fairness. Any number of circumstances may be related to an

aide's morale. Themes in this set of interviews demonstrate low morale resulting from marginalization, low self-esteem, lack of respect from supervisors and the public, and lack of appreciation. These downsides can be offset by the intrinsic rewards many aides gain from their love of assisting people on a personal level.

Agency leaders frequently bring up the idea that home health aides seem to "feel badly about themselves" or "are looked down upon." These parts of the conversations are awkward and seem to be mostly tense because the leader is trying to describe social class without seeming snobbish or at a loss for the appropriate words. According to agency leaders, aides experience stigma because their job lacks prestige and they suffer from being thought of as dirty, lazy, thieving opportunists who might even be seeking to exploit people with disabilities. This problem persists even though there have been strides in professionalizing this health care role.

While this is an unfair characterization of the occupation and those who work at it, there is a problem that these managers and agency leaders are identifying, even if awkwardly. The aides occupy the lowest rung on the ladder and do internalize a kind of subservience. In addition, due to low education levels, low income and relatively fewer opportunities to develop their potential, aides exhibit a kind of low self-esteem. This can even perpetuate the stigma and at its worst this pervasive attitude can add to an already disadvantaged life picture.

*It takes a special person. So some of them say "you want me to do what?" They never considered how they would feel about toileting someone, or cleaning them up and that is pretty much what they do. They go in to homes and carry out the "activities of daily living" or "ADL care." They are cleaning up after someone. They are picking up after someone else. So in their mind, their role is insignificant. And they are kind of like the slave.*

*They don't put themselves in a position of saying, "I am offering a service." They don't say, "I am a service person. I am serving another person as a service."*

> *While some might find it very rewarding to serve others, aides don't look at it that way. They feel like they are "just the aide." So "the bad" beats down on them emotionally. (Anne)*

Most agency leaders believed that negative thoughts, lack of hopefulness about the future, and frustration with financial stresses often led to poor work attendance, difficulties in parenting roles, substance abuse, and/or difficulties with the law. Depression may also be a factor, leading to personal and social inertia. Home health aides tended to look down and away from people and exhibit mannerisms that suggest their marginalized position. While there are aides who gain deep satisfaction from their work, there are others who do feel humiliated that they are paid to clean up human feces and other bodily fluids. They are paid to do the most basic and elemental things, the kind of care activities that the nurses who supervise them do not do because they only do the skilled work. They are reminded repeatedly not to exceed their scope because they are "just an aide."

> *If you look at the whole process of care - who is spending the most time with the patient? It's a home health aide who really is the lowest rung on the ladder, when you look at home care. They are the lowest paid, and probably don't have as much "juice."(Louise)*

The home health aide's training is very different from the nurse's training and may explain, in part, the aide's behavior and sense of place within the medical hierarchy. They have less training and are paid less, but the type of training may also discourage respect in the clients' homes and among agency staff and co-workers.

> *In the nurses training there may be lessons about not getting emotionally attached. Also, I think perhaps nurses won't put up with anything because they're trained to be a nurse and they have these credentials. There is a certain sense that the nurse should be listened to. She has to order patients around and she has clout. But the aide doesn't have that kind of clout. And that special strength that the nurse has? The aide doesn't feel she can assert that sort of professional strength. The best nurses I know are tough and loving both. That is a hard thing to be. It may be that these aides don't have that kind of training. (Rita)*

Home health aides interact with other care providers on the team. They are usually supervised by an RN. The RN has the opportunity to train the aide on specifics required in the care plan.

> *The State requires direct supervision once every four weeks, and indirect supervision in between. So every two weeks there is sufficient. They ask the patient about the care plan and if it's being followed. There is a set of questions. Every four weeks to nurse her therapist has to physically see the aide, and talk to the aide at the client's home. If an aide is going out on a brand-new case, they absolutely must be placed and they must review the care plan, the nurse or therapist discusses the patient's condition, the type of activities the patient is able to carry out - such us how far they can walk, whether they need a walker, how to call in if there are problems. The nurse will discuss with the patient what the expectations are for the aide. That happens on the very first case. If there are changes on the case, then we have to place the aide with a new permanent replacement (Cora)*

Over time, agencies have worked hard at getting the RNs to respect the aides as an important part of the health care team. Mainly this has been done by the higher management (who are almost all former RNs themselves) speaking to the RNs, encouraging them to reject the story that the home health care aide is "just an aide." While acknowledging that the home health aide may not do actual nursing tasks, the agency leaders and managing supervisors take time to

emphasize and underscore that the aide's power of observation is key in the establishment and continuance of quality home care.

> *When we are having issues with some patients, say they are being non-compliant [with the care plan]; we want to include the aide in things. I will say to the staff, "Make sure you talk to the aide. While you are there doing some treatment, you are in and out, whereas the aide spends a block of time with the patient. The aide will know all the things about the family dynamics and other things. The nurse may be having a hard time figuring it out, but the aide can help them. (Rose)*

> *Since I'm the director of the agency, any time I am orienting new CHHA staff, I encourage them to try to have a meeting with the aide. I encourage them to speak with the aide. (Emily)*

*Lack of Recognition, Appreciation*

Home health care workers derive most of their internal motivation and drive from the satisfaction they get in making a difference in the daily lives of their patients. While the work can be very thankless, sometimes clients provide the deepest appreciation.

> *They home health aide can be unsure if they are doing a good job, especially when there are combinations of persistent lack of recognition, high work demands, concerns about patient safety, unfair labor practices when asked to work after punching out, frustration when other aides don't follow expectations, but nurses hold aides to the care plan, and frustration when the complaint process is slow (Olive)*

> *There was another case that this poor guy who was 55 years old and diagnosed with Multiple Sclerosis. He was going down quickly, but his disposition was awesome. When you walked out of there, he would say, "Thank you for coming and take care of me today. You could have done anything else with your time but you chose to come and take care of me." He had such appreciation. (Betty)*

Many agency professional staffs have reflected on the levels of appreciation that aides experience or do not experience and the leaders readily discuss that the aides are motivated by appreciation and that they are always looking for meaningful ways to express appreciation for the aides.

> *I don't know if they recognize that all the time. They may not realize all the good they're doing. We are probably guilty of not recognizing the work that they do. (Mary)*

Aides' interaction with the professional staffs who manage these functions varies a great deal depending on the manger's style and the size of the organization. Some who are involved in the day-to-day details know the aides by name and have regular contact, while others delegate those details and would only interact briefly with aides at planned events or in-service meetings. Internal complaints are rare. Even if an aide is caught not doing well, making mistakes, or sleeping on the job, very often the aide and the RN will work that out internally.

Counterbalancing those feelings are the intrinsic rewards many aides realize because they find inspiration in their work. Even while fully understanding some of the most difficult circumstances that aides face well, agency leaders and supervisors repeatedly held to this ideal story that the aides love their jobs, found meaning in their work, and were often the types who "would do it for free."

*Stress Process Models and Emerging Work-Related Stressors*

As stated in Chapter 5, the Stress Process Models acknowledge social context from which stress arises and proliferates and thereby moves an individual toward either greater advantage or disadvantage. Sources of strain can include family interaction, workplace-level or societal-level factors and can include complex social webs and interacting socio-cultural systems. Access to

transportation, childcare, exposure to violence, racial discrimination and death are examples of socially constructed phenomenon that agency leaders identified as sources of work-related stress for home health aides working in their agencies.

*Transportation*

Most low-wage workers struggle to keep any sort of car on the road because the expense of obtaining and maintaining a car is beyond their means. Given this, getting to work is a constant problem. Home health aides either take buses or they are expected to use their own cars and while mileage is paid, this compensation rarely translates into actually being able to afford a working car unless the household has other higher wage earners. The wear and tear on their cars, as they see an average of 5 clients per day, overtakes their ability to keep the car road-worthy. A few sympathetic agency leaders do attempt to alleviate transportation issues whenever possible, but the agencies provide cars for aides to use on the job in only a very limited way.

> *Some of these individuals are taking buses in between their house calls and to find buses in this city is very difficult to for them. We do have some cars available for those individuals who are willing to do more travel and they have to come back if necessary. Most of them have their own cars and we do pay the IRS rate of mileage so that they can have that plus they are paid during their travel time at their regular pay rate. Many other places had been paying travel time at minimum wage, but I have not done that. It takes more energy to try to figure out those hours. We want them to go see the patient's, so we don't differentiate the rate. (Anne)*

*Childcare*

With erratic work hours and low pay automatically comes difficulty securing consistent quality childcare. Agency leaders report that aides with these stressors miss work more often and

are often anxious on the job, worrying about their children or their grandchildren while they are completing their work day.

> *A major stressor is babysitters. Childcare is a huge problem. You can definitely tell when there is a holiday from school because there isn't childcare. It can cost them more than they make to pay for childcare. (Deborah)*

> *Their family issues are stressors. They have to take care of the children. Some of them have children with disabilities. Some of them have young children or they are young mothers. They have to pay for day care. The children get sick. So they have to call in sick. (Rita)*

*When the client is very poor, very sick and has no family*

Most agency leaders expressed that one of the more common challenges for aides is that they regularly encounter the unmanageable problem of their patient. When they cannot fully alleviate the medical, personal, financial, or legal problems, they tend to exhaust themselves in the attempt. To provide appropriate professional distance, aides are not allowed to get personally involved in the patients' lives, but this is easier to follow on paper than in "real life."

The real circumstances tend to produce empathy and concern in the aides who are motivated by the desire to help. When a client is very poor or has a faulty support system, aides often step in to attempt to fill the gap, especially when the client is very impoverished. Aides easily become overwhelmed and can even burn out as a result of this type of over-involvement.

> *And the client doesn't have the right food. The aide knows they're not eating correctly and she opens the cupboards up and the only thing that's in there is instant oatmeal and coffee. So the aides take it to heart especially in elderly person who really doesn't have everything they need. Or that they are missing out. They won't go ask for help. They won't try to get meals. And they don't apply for*

> *Medicaid because they don't want to apply for welfare. But it is difficult to serve their patients in those conditions, so they bring stuff from their own homes and they try to get stuff for them.*
>
> *There was an example of an elderly lady living with her grandson and his two children. There were unsafe steps in a narrow hallway and the aides couldn't even tell where they were walking because there is only one bulb light bulb in the hallway. There was never any clean linen. It was clear that the girlfriend and the kids were living off the grandma's money.*
>
> *The aides got really involved. They were going to the Salvation Army and trying to buy sheets and towels and things like that. The aides felt frustrated because they've done everything that they could. They bring cereal and milk from home.*
>
> *In these cases, we have to get adult protective services involved because we have to get them to listen and stop abusing the grandmother. The aides get really involved in those sorts of cases because they have been taking care of those clients for a long time. Usually, in these cases, the family members are using drugs and they are drinking. (Vera)*

*Workplace Violence*

Stress comes in many forms and recently workplace violence and/or the threat of violence is increasingly acknowledged as a source of stress. Agency leaders universally endorsed this as a major concern faced by the agency as they work to prevent various sets of circumstances that they have learned lead to workplace violent encounters. Supervisors encourage aides to leave any situation in which they feel uncomfortable. Training emphasizes policies and procedures that recognize the real dangers faced by aides as they find their addresses, enter the homes and cope with clients, clients' family, friends and neighbors.

> *We did have a home health aide a couple of years ago that was assaulted when she was in the home. And we are dealing with that. She was a just a remarkable person and she wanted to get right back to work as soon as she could but it was*

> *an unsafe environment. We are trying many things. Safety is a top priority. If someone doesn't feel safe. Leave. Don't be there. Don't put yourself in that environment. Let us know or call adult protective and we'll get that situation covered. Because it's not like a hospital or a nursing home, aides are on their own. Very independent. We need people that have an ability to have some critical thinking skills. And who can work through situations like that. (Chris)*

Solutions for workplace violence are pursued seriously by agency management. The managers realize the complexity of the circumstances would tend to discourage reporting of incidents, so they are careful to support aides reporting about violence. Aides fear they will be fired, because the client is the paying customer, but the agency has a strong interest in retaining aides, so they do tend to be supportive of the aide's claims.

Agencies all reported having policies of supporting the aide first of all and not putting the clients' agenda above the aide's safety. In addition, some agencies are experimenting with various technologies. Some agencies had multi-layered electronic keyed entry systems to ensure safety at the agency and long-established protocols for phoning in and/or leaving the site when violence is occurring or is threatened. New technologies were also being tested.

> *We are in the process of doing some research on a new product we found. It provides for each cell phone that the home health aides have, a little thing that plugs into where the earphones would go, but it's more like a tether. They can keep it on their wrist or whatever and if they feel like they are threatened in any way, and in an uncomfortable situation that is going to be hard to get out of. They can pull the tether and it will contact 911 right away and give their GPS location. (Chris)*

*Emotional Labor*

In the U.S. and most places in the world, workers are expected to regulate their emotions during work-time. Furthermore, they are required to manage the expression of their feelings in ways that are conducive to the work mission. Many occupations and especially those delivering services such as health care, require the worker to display a specific set of emotions consistent with the circumstances. All of the agency leaders ascribed to certain types of professionalism for home health aides, but a few leaders emphasized in detail how health care workers must place whatever is going on in their own life aside and tend to the patient with a pleasant professional demeanor, display cheerfulness, compassion or concern in order to create the mood most appropriate and conducive to the health goals while also taking into account the patients preferences and personality.

By definition, aides are caring for people and the act of caring requires some degree of empathy, concern, and the ability to display emotions in keeping with the importance of the information being exchanged or the task being completed. Home health aides must add in a certain decorum that is expected of a person who is a guest in another's home. One of the managers emphasized that it is emotional from the start to the finish of the visit.

> *The home health aides are really the front lines. Just that is the stressor. They are in the home for an hour and a half to two hours. And sometimes the patients complained, or blame the home health aides. The home health aides feel more accountable because they're the ones doing the most face time with those patients. And usually it's not a happy family. The home health aides don't even have to have a high school education. So they are coming in from a lower social economic level. Some of them just bring a lot more stress from their own family dysfunction. And they don't know how to handle all of it. (Jessica)*

Sometimes aides are required to step in for another aide due to scheduling issues or vacation coverage. Most often the aides do not tell their patients about their vacation plans until the last possible moment because it will upset them. Many managers believed this was difficult for the aides because they were reticent to take those assignments. Aides did not mind the excitement of a new case, but taking over someone else's case was more worrisome.

> *It's really hard for an aide to be the second aide into the home. This person may have gone for months and months and months with the previous aide. So when there is a vacation, we have to bring in that person to take over. When they get a new aide on the case, that patient is often very hard on the aide. And that's tough for an aide to walk in and realize they are following in someone else's shoes, because sometimes the people form bonds. (Brenda)*

Emotional labor encompasses any number of exchanges during which the home health aide must adjust their own emotional experience in order to accommodate the circumstances. Difficult patients, death, and managing the work and non-work interface are a few examples important to home health care work.

*Difficult Patients*

Difficult patients are more emotional, more physically demanding and more complex patients can require special circumstances (i.e.,, such as only being attended by an RN, or being attended by an RN more frequently). Patients might yell at the aide, complain non-stop, or pressure aides to do activities not included in the care plan. It is difficult for aides not to take these conditions to heart and to react personally. These are extreme cases with more severe reactions than others.

> *You have patients who are all different, and some have dementia and some have Alzheimer's and depends seeing on their physical condition they are different. You can have a demanding caregiver, and knee deep caregiver, a very mean the caregiver. We have had aides grabbed by men before because they are dirty old men and it's very awful and they are stressed by the job itself. (Cora)*

> *I think caregiving can be bad for people and can cause health problems. It's not necessarily the case load. I don't see the caseload as the problem the numbers are not the problem. But I see that the dynamic of dealing with difficult patients or difficult families is a stressor. (Linda)*

It is easy to see that agencies recognize difficult patients are problematic. Some agencies focus hard on retaining aides that do well with difficult patients at all costs, paying those aides more and offering enriching career pathways. Also, agencies work to create good matches between patients and aides whenever they can. Getting a good match can seem like a luxury, but it can prevent headaches down the line.

> *Getting a good match is important. For example, with Darlene (not her real name), everything rolls off her. But Amanda (not her real name) is high energy. Amanda will come in and if you're sitting still she will scrub you and scrub everything inside the house. She flits around and works very quickly. Some people are put off by that and another people love it because you get so much done. A lot of people want it peaceful, but she's very energetic. Perhaps they are proper and they like to dictate how things are done, and Amanda does things her way and she does it and she does it well. She will take direction to do it differently but her basic nature is energetic. We talk about how there are two roads. This is not a wrong way. We will move Amanda to where the people appreciate all that she is. We do have to try to understand the different personalities. We try to determine who is a mover and shaker. And what's going to match in each home. (Brenda)*

*Home Death*

Older people who prefer to die at home choose home health care especially to foster that possibility. Some work with hospice and make concrete plans to die at home. Others do not have the luxury of making such plans, if health deteriorates without enough warning. In any case, death is a common experience for home health care workers. Most aides view death as a natural process and are not overly burdened by the idea that their clients often die. Some aides are deeply affected by a death of a client only infrequently, but it can take them by surprise when they may not have realized how the bonds had been forming over time until the patient's death. Still, some others are deeply affected more often. To help aides with closure, most agencies encourage the aides to attend services for their client if they wish and if the family is on board.

> *Some of them get very, very attached to the patients they are caring for. They are going from one dying patient to the next. Aides could really say, "I work with you for three or four months. I become attached to you. You die. I get another one who dies." Who can do this all the time?! (Anne)*

*Work/Non-Work*

Balancing personal problems and work demands is a fairly universal theme across all occupations and income levels. Work often interferes with home life and the responsibility one has toward family, friend and the community. Just as often, one's responsibilities toward family, friends and the community interfere with performance or progress in the workplace. These interferences are bi-directional and can occur simultaneously or in feedback loops that create cycles and ruts in the workers' lives.

The common wisdom suggests people should separate work life and personal life. What these agency leaders identify in the home health aides differs because it is not so much that the aids have more conflicts between work and non-work, but they have fewer resources to manage their problems and fewer social skills to access to solve issues. Also the agency leaders report that the aids sometimes would mask issues, such as low literacy or low computer literacy, preferring to appear uncooperative rather than expose their inability to read or function on a computer.

> *Our workforce looks a little bit different than others I have worked for before. In those, we would do a lot of recruiting in welfare to work programs. Very often the training would become a revolving door. What I have found working a lot with home health aides through the years was that, very often, when I was involved in some kind of disciplinary process with people, it was an issue with coping with everyday life. They did not have coping skills. They could not handle what I would consider the circumstances of everyday life.*

One agency had developed some programming about the stressors of home health aides. It featured clips of an aide taking care of a patient with a bubble superimposed over the aide's head to indicate what she was thinking about. The thoughts demonstrated the stressors the aides experienced. The agency leader noted that she felt that sometimes aides come to work to get away from their family related stress and she also observed difficulties with communication within aide's family units.

> *"I wonder if my child had enough to eat for lunch today"*
> *"I wonder if my child got on the bus and made it home okay."*
> *"I hope my dad had his caregiver come."*
> *"I can't pay the electricity bill. Maybe they'll shut my electricity off by Friday."*

> *"I hope my husband made it to work on time after drinking so much last night." (Linda)*

> *Dealing with their home life is what puts the most stress on them. I don't think it's actually the work itself. They have to be able to handle what is going on with their personal lives as they work. (Cora)*

Home health aides with families were of particular concern for managers and other agency leaders, especially because they had childcare and/or eldercare needs that were not always easy to accommodate. They also reported that some aides seemed to be at risk for burnout and they might lose them to other types of work that may be available in the community because they have so much caregiver burden.

> *I think it's because some have small kids and they may be sandwiched between taking care of them and their own parents. They don't handle it as well. And then you have the stress of patients who think of the aide as their family members because they spend so much time in those homes. For our aides it's about two hours max in the homes, but those in the license home care agency can be there up to eight hours and they become part of that home. So that's a whole different stress level. (Jessica)*

Stressors do not occur in isolation. Aides have family issues, financial issues, poor prospects for child care, dysfunctional personal relationships, and these impact their work, especially when they did not really want to pursue a job with the caregiving role but felt there were few or no other options. This combination of problems can be demoralizing, as it seems ironic to leave your own child to go into another's home to care for their family member. The way these feelings develop over time contributes to an effort – reward imbalance with a sense

that it's not really worth it to have others watch your child while you take care of someone else's grandmother. Agency leaders perceive that the general lack of education or "broken backgrounds" contribute to the problems they may experience in holding down or doing well in their jobs as home health aides.

> *Most of these people are not highly educated. Most of them come from a broken background. A lot of them are brought into this home health aide or personal care needs program through Medicaid to get them off the rolls. A lot of them don't really want to be here, but recognize that this is probably the most money they can make. They are generally women, and generally women with children, and generally women with children that have absent fathers or abusive significant others, which is a huge problem with this population as far as my aides are concerned. They find themselves living in arrangements that are not healthy. They live in parts of town that are not healthy, and this forms a psychological stressor on them just trying to get through that.*
>
> *They are raising a little person and they don't have enough money to put him in daycare. Now someone else has to watch them or they leave them alone. In many cases, they leave them alone. Some of them have even taken their children with them to work and leave them in the car while mom works, because there's no other way to take care of that child. So, from an emotional standpoint and because of the lack of education and because of the environmental stressors - now they are thrown into health care which is very personal healthcare and there are not a lot of people that want to do hands on care. (Anne)*

*Trying to "Do It All"*

> *The biggest stressors I have seen over the last few years are that the young girls coming on board have made some choices. And now they are single moms. They are trying to juggle too many things at once. They are trying to juggle a full time job, they are trying to go to school at night, and they have three or four kids. If they don't have a babysitter in place, it can be very stressful. (Betty)*

In order to establish a dependable workforce, most agencies have initial training that requires strict attendance. This has the effect of weeding out people who cannot overcome various obstacles to holding a job, such as developing consistent childcare arrangements, finding reliable transportation or being able to follow directions for the patient's care. This is a time when managers sometimes identify a single mother who is "trying to do it all" and whom, they predict, will ultimately be unable to keep up with the schedule and pathway. This is frustrating to managers who are desperately trying to recruit and retain quality aides.

*We see it when they first come on board with us, and I just finished a training class in April and one is already leaving me, because she is trying to do too much. It makes me so mad because she is a great girl. She doesn't have the confidence. She applied for a different job. She has two kids. She has family issues and she is trying to balance it all out. She said I will have to leave you now. She didn't have confidence in herself. Her self-esteem was raised and she realized that she can do more and that she doesn't have to settle, but she hasn't made it to 90 days. That's the problem that I see.*

*The class is three weeks and they cannot miss a day. The only time they can get on their phone is during their breaks. So, if they have made their arrangements for babysitters, then they have to have those things in place. They have to continue that when they are working. They are often biting off more that they can chew. They don't have backup plans for their babysitters. They are not thinking that next step ahead. Much of it has to do with their age. They're just trying to conquer to much at once….they want to get the benefits and so they put the pressure on themselves, but they don't need more responsibility when they can't manage the responsibilities they've got.*

*I try to tell them to take it slow. Don't try full time if you can't make it because you will be obligated to me if you have to call off because you don't have a babysitter. You are going to have a strike against you. If you were per diem, that flexibility will be there, but you don't have that with a part-time or full-time position. That's where they are running into the problem. Flexibility can work to their advantage when they work per diem. So I encourage them to take it slow. I have them wait. Then, they can be slide into the standards and help them to balance their home*

> *and work life. Sliding into the full time job would help them balance their lives. (Betty)*

*Racial Discrimination*

Discrimination can and does occur in the home health care settings and at the agency site. Agency leaders, managers and aides bring up situations, circumstances and policies that demonstrate the problem is widespread and demonstrate that agencies have been actively pursuing improvement over time. Sometimes these improvements are impressive and thoughtful, and other times perfunctory and uninspired. In any case, that race is a factor in daily operations cannot be denied.

Generally, all of the agencies reported strict policies against racism, but the leaders were quick to explain that some preferences are accommodated, especially when the motivation is more cultural, religious or at least does not come from a blatantly racist stance. For example, when Muslim women need home care, attention is paid to the cultural differences. Muslim women will refuse personal care from a male aide, for example, because the woman cannot be touched by another man who is not her husband. In that case, it is considered a religious requirement and not a racist (or sexist) request. Attempts are made to cover these type requests, but sometimes it is not possible to manage all of the requests made by patients. Agencies also try to be sensitive if the concerns center on personal care, noting that they are not actually always able to supply male aides when they are requested because the occupation of home health aide is predominantly taken up by females.

Racist behavior and speech most frequently emanates from the patient to home health aide. When racism occurs, generally it is a patient refusing to be cared for by a person of color and the expression of this racism can be jarring and uncomfortable for agency leaders. They can

and do turn clients away with "just cause." They all consider racist attitudes to be reasons for not admitting a client into care or terminating care.

> *As a manager and with the clinical managers – we've had clients who will call and say, "I absolutely refuse to have that person in my home." And the answer is, "as far as I am concerned, they are an aide. We don't go by race, color, or anything else. This person is here to help you. If this is your choice to be racist, we will remove the aide and you'll have to take care of yourself. We will not provide an aide under these circumstances. You can go to another agency." We suffer the loss of income from it. It is not tolerated even if it's a nurse or a therapist. This is not just a white agency. It runs through the managers all the way down. It seems to come up more when personal care is involved. It seems to trip racism in some people. (Terry)*

> *You would never put the aide back into a situation where she would be open to any type of abuse. So we will change the aide. But we've also had discussions with the family saying it doesn't matter what color of the person's skin is. They are there to do your care. If you cannot accept the aides we have that we cannot provide to you and we would turn the family away and we would say no. One time I can remember we actually just told them we would not provide an aide to them anymore. But the nurse had to be so careful about the documentation. Because they're just going to keep abusing our aide, but we do not discriminate based on age, color, sex, religion, and all that. (Rose)*

By observation and by conversation, race relations within the agencies did not seem to pose any particular stress to the organizations. In fact, minorities seemed well represented at most levels of the organizations, except at the very top-most levels where I only interviewed white, female agency heads. One agency leader shared about what she had observed in other agencies and contrasted their achievement in the way they had developed a diverse workforce in their organization. She also believed that discrimination based on class was quite prevalent.

> *We are fortunate here because we have a very diverse employee pool at every level. So, I have observed in some organizations that race plays a big role. Discrimination also includes class tensions. Sometimes all the nurses are white and all the aides are African-American. But because of our transcultural care programs we attract and we want to attract a diverse employee group so we recruit specifically for minorities. It's important because aides are able to understand their religious preferences, and their food choices and the language barrier is less.*
>
> *We have requests by people based on ethnicity, but we can't comply with those requests. On the other hand, we do have care teams for population-based care so that works in our favor. We've made a point of hiring masters prepared African-American nurses so that it's not just all aides are Afro-Americans and only white people that are professional. (Emily)*

In one agency, a few African-American women had grown their professional careers in their agency. The manager being interviewed had just been promoted to a supervisory role over all home health aides. She had been a home health aide and rose through the ranks, getting her degrees, managing all the top-notch training, and now managing all the aides in a large operation that included two satellites. Certainly, opportunities for minority women are obviously present in at least some of the home health care these Upstate New York agencies.

*Discrimination Due to Sexual Identity*

People who identify as lesbians, gays, bisexuals, transgendered and queer are not generally recognized by most of the home health care agencies. Aides do not have much, if any, diversity training regarding this community. Only two of the nine agencies had any formal acknowledgement of this group as deserving of attention or additional understanding about their home care needs. The result is that clients have been discriminated against by agencies and also by aides who are insensitive or offensive in their behavior. Some assert that the LGBTQ

community is reticent to participate in home care; especially if their status is kept private (i.e.,, they are not “out”). One agency is actively pursuing internal changes to better accommodate the LGBTQ community. A middle manager shared that she sought a position with her agency based on the agency’s commitment to diversity.

> *Identities are often suppressed for this community when they enter care. Care is hard on these people. We don't know their language, and we don't recognize their significant others, and the staff does not know how to carry out their work. They don't realize when they're being disrespectful. They just need to ask. But they just need to know that they need to ask. It's very simple it's very similar to asking people how they want to be addressed if they want to be called Mr. Smith or Bob. Language becomes very important. (Anne)*

If aides are not trained properly regarding specific diverse populations, they may lack the professional skills to do their job well. Work-related stressors, as we have discussed, are elevated when appropriate workplace support for the challenges of work is not provided. In this case, stressors would be reduced if aides were afforded diversity training specific to the LGBTQ community.

*Work-Related Stress Buffers – Agency-Level*

*Providing Home Health Aides with Workplace Support*

Stress theory recognizes negative health effects result from stressors caused by high work demands and low control over the work, but that these negative effects can be buffered by providing workplace support. While recognizing that raising pay rates would be ideal, agency leaders have had to work hard to recruit and retain workers by providing various types of psychosocial and/or workplace support. Workplace support can include psycho-social support,

but also includes the provision of appropriate equipment and other circumstances so that the work can be adequately accomplished. Workplace support includes the provision of good equipment, the knowledge required to do the work and/or access to decision makers who can facilitate work successes. Psychosocial support is simply the responsibility that an employer has to provide a psychologically safe and socially supportive environment.

Home health agencies want to provide as much support as possible to let the aides know they are appreciated and to give them back something more than just a paycheck. Most provide traditional Employee Assistance Programs. Connections to sources of help for low-income families in the community are fostered. Good management that buffered work-related stress might be as simple as providing responsive, sensible approaches to the work and the people doing the work. Evidence for effective workplace support was supported by agency leader remarks, programs, activities and behavior, an indicated by the following examples:

1. Honoring more experienced "preceptor" aides has the effect of recognizing the more experienced aides for their knowledge and years of service while offering socially supportive connections to other aides.

> *One of the things we do that is somewhat unique is that some of our aides, the old timers, we have rewarded them. I am a preceptor to the other aides. The registered nurses are not good at that. They just aren't. (Mary)*

> *The longtime manager retired. We promoted from within and created the team leader position to deal with the home health aide program. She started having regular meetings with them because they weren't having regular meetings. And that's when we started doing the life skills training. For the first four months we met every two weeks. (Patricia)*

2. Supervisors take their responsibility toward the aides seriously.

> *One thing is that our agency doesn't have an employee assistance program. We never had it. So, the supervisor responsibility is taken seriously. They are watching out for their subordinates' personal lives as it impacts their work. (Jessica)*

> *I also go out and try to find them work where they would like to work. They all love to work in buildings. These are nice facilities where people are treated very well. So I support them by working on new pricing packages, so that I can get more clients from this type of housing. (Chris)*

3. Home health aide managers are especially suited to their work.

> *Her strength is meeting the psychosocial needs of the home health aides. That's a big part of who she is. That's not what I asked her to be but that is who she is. It's really important to me that she takes care of those people and she really does give them the positive feedback that the other professional staffs don't. She does it really well and I really value that. The other managers can't do that because they are on the race. And they don't stop. (Mary)*

4. Managers and CEOs who remained sensitive to the needs of the aides due to formative experiences.

These senior managers were likely to ensure that whomever they assign to manage home health aides were meeting the psychosocial needs of the home health aides they were managing. Some remained uniquely sensitive to the plight of the home health aide even though they had not been in the field for many years or maybe never crossed paths much with home health aides in the course of their work as nurses prior to taking on higher level administrative roles in home care.

*Many years ago, I was able to go out in the field with one of the home health aides who are still with us today. She was 70 years old and she received the Home Care Association Award. "Trisha" is the most fabulous, unbelievable home health aide. We were in a home and this man had a disease and he would collapse if he sat up in bed. And he wasn't a small guy. And I happen to be in the home when "Trisha" was in the home. So I helped her do his care. Later she said to me, "A nurse has never done that. No one has ever helped me. Thank you so much." And I remember to this day that she felt that way. (Mary)*

5. Good managers of home health aides provided good psychosocial conditions through meaningful measures taken.

For example, whenever possible, the personality of the aide would be considered when placing the aide to smooth the already difficult path for the aides. Or they would take on real problems that developed, being willing to talk on the phone to find out what's going on and then send in appropriate resources into difficult situations as they arise in the homes.

*We try to talk with the aide and find out what's going on, so that the aide can report to the supervisor who will then work with the nurse and we may send up a social worker to deal with home environment. We may need to send community health worker. We may use adult protective. (Jessica)*

*For the most part people would not be in trouble for reporting problems in the field. They are going to have support more often than they will get demerits or get fired. There is that safety for them. Things are handled and dealt with properly. Even if it's a patient that complains against the aide, it's investigated so that it isn't just assumed the patient is always right. We look for more information. (Mary)*
*I want my staff to know that when they are out there, if something isn't right, or if someone doesn't treat them correctly, that they can pick up the phone and call us and tell us. We will defend them. When I worked in a hospital, I didn't feel that anyone would do that for me. There was more a sense that I would be reprimanded or that my license may be on the line. (Cora)*

6. Good managers try new approaches and work toward putting on meaningful events.

Most provide recognition events with food and awards. Some provide yoga or other wellness activities. These attempts to show appreciation are not always successful because they are perceived as superficial and aides "don't show up for things if they aren't meaningful."

> *Even if they are getting paid during the special recognition events, they don't want to take a bus to the special event. Only some people think they're great. We have tried. (Betty)*

> *We offer yoga to our employees. And it's five dollars once a week. And so we try to think of things that decrease stress. I can't get any home health aides to participate and I can't get nurses to participate. We try to think of things to help with their stress. (Jessica)*

7. Good management embraces the provision of good, modern equipment for aides to accomplish their work efficiently and safely.

> *We also put money into devices for them. They have smart phones. Their care plans and their map are in the phones. They are to use the map which will take them right where they need to go and it usually works. I make sure all of them have their own bags and they are given all their personal protective equipment in the bag. (Anne)*

8. Good management advocate for their subordinate workers by responding to legitimate and practical needs with fierce advocacy and genuine respect and dignity.

> *It is important to make sure you are treating people with respect and dignity at the lower levels of the organization. That's the battle. Treating people with respect and with dignity. (Kim)*

*"Social Assistance" Type Solutions*

Having noticed that home health aides not only suffer from financial strain, agency managers have noticed that they have difficulties stemming from low education levels and fewer opportunities to develop basic life skills, effective coping mechanisms, and supportive social connections. Since these deficits affect the aides' ability to perform well at work, most agencies have taken steps to fill the gaps in aides personal lives with a variety of solutions for both material and immaterial need.

As mentioned before, middle managers can play a socially supportive role and some agencies have created a tiered system whereby more experienced and socially skilled aides act as mentors to other aides. However, most agencies have also gone beyond this personal and active management style and taken further steps to provide "social assistance." The agency managers and decision makers connect their aides with needs to solutions, motivated by humanitarian zeal and also by the fact that in the long run, these simple solutions can keep an aide working through the their problems and working longer.

> *We have an employee assistance program. It's very a good program. They get six free counseling sessions for them and a family matter. They offer five sessions per problem. Then we have a person from support services who comes in every year in October for an in-service and he goes through what kinds of programs are available for the lower socio-economic population. He talks about the HEAP applications, wheels to work program. He brings in flyers, pamphlets and information. He also presents to large orientation classes. (Rita)*

> *We do understand how much the financial component can put people into a tailspin, so we all donate money out of our paychecks for an employee assistance fund. They fill out a form. It's handled properly. Usually it might be a fire or something serious. It's a way of getting people back on their feet. (Rose)*

Agency leaders simply find that the social agencies that should be looking after their employees often do not act in ways that protect adults or children. The agency leaders often attempt fill the gap left by social services to meet the more dire financial and personal crises that home health aides present to their employers.

> *The other part of it is the social barriers due to their home life. That is very very very very challenging. When I started we had an aide that had missed 11 days in four months. And so I gave her a verbal reprimand. And so she started crying, because she has a three-year-old son and she is homeless. But she was working 40 hours per week. She was at a shelter. So we ended up hooking her up with an agency that could help. And that was enlightening to say the least.*
> *We are doing some things that we never have done before because the social issues are so great. I don't know if this has always been this way, but it is pretty extreme. We put a social work corner into our in- services and we have been bringing in local resources, such as about housing, or how to get Medicaid. Some of them have medical issues. We are trying to bring in some of the resources that we have within the system to help them at home.*
> *(Cora)*

Agencies find that they benefit from providing training in social skills and "life skills," as the workforce seems to lack skill in managing things in their off time that would support work life. They were ill-equipped to manage their personal finances and their time. They were unable to develop effective support systems.

> *We found we needed to institute the new training on life skills. We were helping them budget their time, different ways to communicate, and some of those basic skills that they don't have in the regular training. It's not part of the home health aide training. They are waiting for their next paycheck to be able to buy groceries. I think their poverty is the stress and that will impact their health. (Linda)*

One agency goes further by providing "spiritual care" especially equipped to manage death and other psychological strains of care provision.

> *One of the things we offer both our patients and our associates is spiritual care. We have two full-time chaplains that spend their time going out and seeing our patients. Those two chaplains provide service to our associates just as much as our patients. They make it a point to attend wakes and funerals and they will often run into our associates at those wakes and funerals. These two chaplains are looking over hundreds of people. And one of the chaplains actually is a social worker. (Rose)*

*New Manager Develops Model Managerial Support Methods*

In one agency, a new manager, "Anne," was hired specifically to correct a disastrous 45% turnover rate. Given that the national average was about 35%; her work was cut out for her. Her first discovery was that a strict "no call, no show" policy led to a high number of terminations. She found this policy unfair to the home health aides who were given no chance to explain or rectify their problem, but were summarily dismissed.

> *Nobody found out why people were "no showing." I have saved the company millions by reducing the turnover rate to 25% in 8 months. Just from treating people right. They blew through millions of dollars last year because they weren't treating people right. (Anne)*

Grounded in specific opinions about the educational needs of those in lower socio-economic status, Anne's management philosophy demands a dedicated, empathetic manager be available to the home health aides.

> *I have a very different philosophy than most people that have a higher role. I have been in administrator roles before and I recognize the lack of support for the field staff. I make it my business to know who they are, what they are barriers are, what they are going through, and try to formulate new education. We formulate new programs and new education to help them through their process because if you think about it, most of these people are not highly educated. (Anne)*

Anne has an "open door policy manager." She functions as a personal support to the 230-240 aides she manages. She is in touch with the aides via email and believes that treating them well helps them find their own personal worth. She goes out of her way to greet the aides by name and reminds them how to access support in the organization, should it be required to function in their work.

> *There are ways to defuse problems. There are ways to acknowledge them and put them in a position of respect. There are ways to support them. There are ways to bring them together and listen to their concerns. They know I am here for them. Just that general support is important. And if you really mean it, they know you mean it. I have an open door. I give them my business card. I let them call me at night. There is a whole that these kids go through. Some are meant to be hospice people and some aren't. I try to find out which are cut out for it. (Anne)*

In an early initiative, Anne developed team leaders who become mentors among the other aides. It is a promotion for them to achieve the preceptor role. She interviewed 35 and picked 4.

They make $14/hr. Those people become support for their peers. They do not have their own cases. They are assigned to help the other aides in practical hands on ways and by developing supportive emotional stances as well.

Anne has a keen sense of problem solving and takes on issues important to the aides overall physical and mental health. She makes changes to protect the home health aides from overwork and provides consistent positive communication. She remains close to their concerns, especially about financial strains in their lives.

> *Money is a big thing. 3/4 to 90% of them worked two jobs. God knows what they are doing or what hours they must be keeping. I had some of my aides working 90 hours just with this organization.so I brought them all together and said no this is too much for you. I have aides calling me and thanking me because they were so exhausted.*
> *So I try to find them a little bit more money. I try to help them learn to use their resources differently. If they need to talk to someone about insurance, or finances, or give them the resources that can make them the most comfortable.so that they can work a reasonable amount of hours and have a life. So, my aides make a little more than other aides around this city. (Anne)*

Anne is committed to the education of the aide as a whole person, so her education of the employee goes beyond customary training modules.

> *The aides don't have much education…sometimes they can't use a cell phone. They can't use the computer to sign up for their benefits. When I tell them to come in and use the computer, and I actually get them here to watch them do it - I find out that they actually don't know how to use the computer. It is not that they are just lazy or unwilling. I have a lot of people who did not get through high school. And they are good people. (Anne)*

When Anne was asked how she managed aides that clearly are not going to work out well, she responded with compassion. With wisdom about when to draw the line because good care must be delivered to the patient, Anne explains her process for moving an aide on to other work, when necessary.

> *Usually if someone can't work out it's because they have very bad judgment. They will work unsafe. And so when it makes it unsafe for the patient, then it can't continue. But, if you are putting people in danger on the job, then it doesn't work. (Anne)*

*Technology in the workplace*

Almost all agencies have moved away from paper records, but all of the agencies do not all use the same systems. Some rely on telephony systems while others make extensive use of smart phone applications or have issued laptops. Technology was identified as both a stressor and a stress reliever. As a stressor, new technologies are often difficult for aides to learn and master. In addition, the new technologies often have tracking capabilities so that the agency can more easily track aides' activity, which could be perceived as invasive monitoring by the aides. As a stress reliever, newer electronic systems were put in place to specifically alleviate paperwork burdens that aides previously bore.

> *One aide struggled with the new technology. She is a slow adopter and she really struggled with it. I hope she would say today that she loves it. When we implemented a few years ago, she couldn't deal with it she almost left the organization. (Mary)*

> *The telephony system gives them tasks and completes the visit. Schedules are mapped out for them. In the most recent years, in the last 3 to 4 years the home*

> *health aides now chart in the electronic record. They record what care they rendered. They have a small laptop. (Charlotte)*

> *Our aides have the ability to e-mail me. They have android phones. And they have a tracking system. They have e-mail that's connected it directly to our Outlook e-mail. They can e-mail me in real time of from the patient's home as long as the e-mail is working, and their phone is working. The paperwork is done through a phone system. The care plan is on the cell phone application. I get comments every week and things that I have to review and read so I can look back to the patient to see what they say. I do a weekly comment review. (Rita)*

*Training*

One of the most important ways an employer can equip their workforce is with appropriate, quality training that adequately prepares workers to do their job well and do it safely. New York State law requires all CHHAs to hire home health aides that have received the standardized training program supplied by the NYS Department of Health. Well-constructed and well-delivered training is part of workplace support, buffering stressors by equipping workers with adequate knowledge and skill to execute job tasks with mastery. Training offers initial preparation and ability to keep skills current over time.

Not all agencies offered training on-site. Their hires would come through a BOCES program or a hospital based training program. Most agencies managed their own initial training when they could afford to do so. Agency leaders frequently reported that they were able to construct training experiences that made it possible to screen out people who were not suited to home care work or who were otherwise not likely to do well.

> *We do the basic training. We bring them from knowing nothing to being certified. We also do the repeat training when they need to be brought up to speed on a particular skill. (Cora)*

> *We have an intense home health aide course so that by the end of the first "inning," really within the first two weeks in the classroom, they really can tell who is going to stick around and who is not. It's very hands-on. Then, we create a buddy system. We take some of our premier home health aides and have them do business with them for a period of time. Then the nurse comes in to evaluate them to make sure they are ready to do the job. (Chris)*

The quality of the training that an aide acquires varies a great deal across agencies. CHHAs are not only required to employ home health aides certified with NYS DOH programming, but they also must provide ongoing training. All of the agencies managed the requirements for ongoing training. NYS DOH requires twelve in-service training sessions per year. Topics for these trainings emphasized skill retention, health and safety issues, and emergency preparedness.

> *The training comes from the Department of Health. They give it like a robot. "Here's the book. Watch this video." We're going in a lab with them so they can practice. It is very routine and you have to get through it, but at the end of it all, you have eight hours to practice it. And it doesn't seem like there is enough time to practice.*
>
> *You can get creative with training as an agency. We have an amazing simulation lab downstairs. We have mannequins that can be programmed. We have the actual Hoyer lift. However, the real training happens, just like it did for me as a nurse, when you get on the job. (Cora)*

Agency leaders work toward developing specialized training whenever possible, to keep home health aide work stimulating for aides that demonstrate initiative and interest in special populations.

> *We have specialized training for aides so that they can help people die in peace and at home. We have nurses that train home health aides in pediatric care because we have some of these tiny, tiny babies that need certain services. We have people with Alzheimer's and dementia and there is special training for aides to know how to deal with them. Also, there is special training for people who might have wound care needs. When aides are trained in these areas, we can add services. (Chris)*

Recently, New York State rolled out an initiative creating a new occupation, an "advanced home health aide." After one year of work as a home health aide, specific training can be undertake that allows home health aides to work with an increased scope of practice. For example, advanced aides are able to administer medication or accomplish certain tasks related to wound care or ostomy care that previously were reserved for those with nursing training.

Prior to this, only aides in consumer directed care or family members could pass medication. Home health aides are not allowed to do so, even in the presence of an RN. Agency leaders give this initiative mixed reviews, with some believing that the scope creep negatively impacted the nursing profession and would result in lower quality care. Others, including the Paraprofessional Healthcare Institute (PHI) were in favor of the legislative change, especially because the measure is thought to address gaps in care experienced due to nursing shortages.

Training is expensive for agencies and some managers develop ladder systems to bring an initial hire through stages, moving toward becoming a home health aide.

> *Sometimes it's a stepping stone. Beverly has tried to come up with ladders within her agency. She's not sure if they're* going *to work. She will train them less as a housekeeper. She will tell them, "If you do well, then we will do more training and you can be a personal care assistant. And then if you do well with that you can be a home health aide." That ladder system strains the agency less because there are fewer resources spent on each person. (Jessica)*

*"Betty" Develops Model Training Program*

Among the nine agencies visited, the commitment to quality training for home health aides varied. In one of the larger agencies in a larger city, "Betty" was particularly talented with training program development and implementation. In her new role as the home health aide manager, she continues her commitment to ongoing training that developed as she rose through the ranks, having been a home health aide herself. From the first day, she builds a strong relationship between herself and her new hires. She also makes an effort to connect new aides with more experienced aides.

> *We try and build that rapport with the aides from day one.so that they do feel comfortable calling us when they first come on board, we try to seize them at least a couple times within that first month, we reach out to them and ask them how are they doing do they have any concerns? After they finish the training class, we put them together with someone who's been here for a while so they can learn the ropes the paperwork and see everything that they learned in class and how it connects. (Betty)*

Betty's program includes interactive activities that create interest and enliven home health aides' interest in their work. Her lesson plans are frequently derived from problems that aide experience in the community. She regularly provides activities that go above and beyond the basic NYS DOH requirements.

> *The training program is my baby. It is my life!! We have plenty of practice time. If they are having a problem with the Hoyer or anything like that, we practice that if we get a new toy, I am so anxious to share it with the aides like the new sit to stand lift. If the aide is in the home and they don't feel comfortable with doing a certain skill, we tell them to call us. We can go right to the house and we can do that one-on-one until the aide has no more trouble with it. The nurses have good*

> *rapport with the aide, too. I do hear that this other company just puts them in front of a video. (Betty)*

Looking back, she did ascribe at least some of her creativity around training to the exposure she got as a child to her mother's activities and role modeling. Betty's mother was a creative teacher and well regarded in the community as a leader. Not only had Betty pursed her own education over time and along with her career development, but she often leaned on engaging educational activities she would dream up such as games, puzzles or interactive dialogue to keep her training stimulating.

Another aspect of the training was social interaction. She made a point to stay connected with each trainee and also created a sisterhood that related further to and encouraged union participation.

> *In my in-service trainings we talk all the time. Once you start something, they just run with it. Because we do our own training, I called the training classes my baby. When I see the aides in class, I asked them if they had spoken to their brothers and sisters lately because they seem to be like my babies. I'd like them to keep connected. That will reinforce what they learn and give connection and anchors, to keep in contact with their sisters. They are in a union. SEIU 1199. (Betty)*

*Monthly In-Service*

In order to maintain home health aide certification, aides are mandated to complete twelve in-service credits per year. Most agency leaders and managers provided these sessions and utilized the time for relationship building between management and aides, and also among the aides. Most reported that the aides enjoy the training. Some agencies offer some of the in-

services on-line as a convenience for the aides. Most did not. Agencies within larger systems used at least some materials from the “home office” and presented the “agency material” because the larger agency network or system required that. In-services were frequently held during hours of prime convenience for aides so that maximal attendance could be attained. If agencies had multiple sites, every effort was made to have the professional staff delivering the training travel to the satellites.

In addition to the NYS DOH regulated curriculum, agency leaders assigned to do the training make a concerted effort to “cover things that are pertinent to their safety and the patient's care.” In one agency recent topics included Alzheimer’s, cardiac issues and congestive heart failure, and bundled payments. Another in-service training topic was “gait belt training” with live demonstrations and scenario building. The agency leaders attempt to feature dynamic speakers who do not talk down to aides or present in some kind of sterile way. Those making decisions about the training sessions work hard to remain sensitive to the training needs of the home health aides, both in a topical way and by paying attention to how their scope of practice matters in relationship to the topic.

> *I try to relate the in services to what's going on in the agency and to teach it at their level with what they will face in the community. You might see this. You might hear this. Or we'll have a nurse come in and give out a flyer about the signs and symptoms so that they need to be savvy. We say to them if you are reporting that changes. (Patricia)*

Monthly in-service meetings are recognized as important social events that provide opportunities for aides to connect, bond, gain recognition and learn about their occupation. In-

services often take on an almost celebratory mood, because, unlike other workplaces, home health aides do not have the opportunity to work together with other aides.

*Aide Placement as Effective Training*

When a patient establishes care in a CHHA and it is determined that a home health aide will be utilized in the care plan, a formal placement of the home health aide for the case must take place. The majority of agency leaders recognized this placement as a crucial opportunity for ongoing training. These placements were being glossed over quickly by the registered nurses in charge of the cases to save time, but they lost the chance to ensure the aides were completely competent on all skills needed for the newly established case.

*Isolation vs. Interaction in the In-Services and Other Times*

Social support is only one component of workplace support, but it can be crucial. Working in an environment that lacks social support can be fairly devastating and ultimately impactful on health. Many home health aides enjoy their work because of a certain kind of autonomy that the job affords. Except for the days that the RN is supervising in the field, the home health aide performs duties under no direct supervision from the health care agency. They report a feeling of freedom from the office as they move about in the community.

Home health aides work relatively independently, especially compared with medical assistants that work in hospitals or skilled nursing facilities, but there are some downsides to this isolation. When agency leaders compare settings, they remark that there is far more immediate support for medical emergencies or other troubling changes in medical conditions such as changes in a patient's breathing, skin condition or ability to speak or think clearly. Nurses and

other staff can be called into a hospital room, for example, to confer about the changes and next steps.

> *There are some aides that are a little bit like mavericks. They don't want to be connected. They like the independence. But there's another kind that would like to support. And when I ask them about that I get mixed reactions. Some will say they really like it when there are in-services and they're all required come because they get to compare notes. (Linda)*

Worker isolation can also lead to a sense of disconnectedness to other workers and the inability to assess or compare working conditions or work arrangements with other workers. In a very real sense, this lack of communication can result in a home care worker experiencing various forms of exploitation such as discrimination or overwork for much longer periods of time before the problem is noticed or raised with others. These potentially hazardous or discriminatory conditions are stressful in and of themselves, with isolation compounding the circumstances and confounding timely and appropriate solutions. Isolation simply leads to less frequent opportunities for communication. With workers reticent to speak up for fear of losing their jobs, isolation can be even more problematic. Isolated, workers have barriers to creating collective solutions to their problems.

> *Many times they tell us that they feel like they are out in the field by themselves. Our perception is that when we don't hear from them, everything is fine and sometimes we leave them out there very long time. Sometimes they feel like they are out there and "does anyone remember me?" They tell us they feel they are not connected. They don't always use Internet. We can't always just use a blog. They don't have access for certain types of online activity. (Betty)*

"Betty" expresses creative ideas to combat isolation that she works into her in-service trainings.

> *We had an in-service that we called "stress reduction." Nobody came to it. So, I changed the name to call it "chill out," In that in-service, they were just going to relax and play cards or just talk. They talked about ways to reduce stress. They could even take a nap. I had several chill out sessions. It was stress reduction. Those sessions resonated with them. Another time I did an in-service called, "The Aide from Hell." Some said I should have an Academy Award because I acted out all the worst that an aide could be, making all the mistakes. (Betty)*

Social support becomes even more valuable when cases are taking an emotional toll on aides. Aides deal with serious illness, rapid declines and death with far more frequency than most other health care professionals.

> *We have this one aide who has been here forever. In March, she had a really bad month. Every week she lost a client. She lost one that she had for 10 years. She was ready to flip. She felt like she couldn't do this anymore. She felt like she was an angel of death. But when I talked to her, everything was fine. After that, she found yet another client dead. So immediately we had another in-service that was about dealing with grief.*
> *Generally the client goes to the hospital and we don't get to say goodbye when they get that sick. The aides just hear that the case has been discharged. Many times they say, "Oh I heard he passed." They have to be prepared for that. There is no closure. And that was one of the biggest problems because they didn't have a chance to say goodbye. With that in-service, we were able to talk about it. We were supportive and it was a successful in-service. (Betty)*

The value of the aide can be expressed through the provision of social support by the agency staff.

> *I think there's a value on the aide that sometimes the aide doesn't feel. Am I making sense to you? They don't come in for a team meeting on a patient. You are hoping that the nurses are giving them and that the coordinators and supervisors are giving them the correct feedback that they need. But I don't know that they always feel connected like that. (Louise)*

*Isolation vs. autonomy*

Some home health aides have worked in other health care settings and have gravitated to home care work especially because they enjoy the relative autonomy they experience in their days. Even though they are regularly supervised at intervals required by the insurance plans or the state regulations, most days they are not directly observed in the carrying out of the care plans and as they move from client to client in the community. The flip side of this coin is that with autonomy comes a sense of isolation from the agency and from others doing the work. The isolation can bring less frequent opportunities for positive feedback about performance, encouragement, information or other types of social support.

> *Appreciation normally comes from the client, but we need to make sure the aides know they are appreciated from the office. We hold appreciation events and they get paid during them, but they don't want to take a bus for it. We have tried to get the aides together more. For example, next week I will get together with a bunch of aides to work on the newsletter together. We need their input. When they have input, they feel like they belong. Very often they just are on the phone, but when we see them face-to-face, and then they have a sense of belonging. (Betty)*

*The Union?*

Most NYS certified home health care agencies do not have unionized workforce, nor are the agencies interested in the idea of workers' organizing a union.

> *There are no unions involved in any of the homecare in our organizations. And there is no talk of any unions being formed. The unions are in place in the hospitals. (Cora)*

However, in two agencies, the workers were represented by SEIU 1199. In both cases, the agency leaders reported good long-term relationships with the unions and smooth contract negotiations. Agency leaders involved with unions believed that union membership contributed positively to the tenure of the aides. Generally, senior level executive leaders and financial executives from the home health care agency would negotiate with union representatives and selected home health care workers. There was an overarching sense during the interviews that these managers were not going to give any negative remark or downside to the union presence in their organizations, even if I requested to know more about disadvantages unions may pose.

> *The last one went really well because we had just merged and so one of the bigger things that had been on the table prior to us was the insurance, mileage reimbursement. Mileage reimbursement and pay increased and retention rates were improved. The union was very happy. (Deborah)*

*Agency Characteristics*

*"Trickle Down" Stressors in a Changing Health Care System*

The purpose of this research is to explore work-related stressors with both a traditional lens and with additional vision for including socially structured variables and their potential impact on job strains. The underlying assumption is that work-related stress negatively impacts health. The home health care agency is an institution that operates within an ever changing healthcare system. Pressures on the agency develop and dissipate depending on a host of factors

such as demand for services, reimbursement rates, legal changes, and workforce availability. It seems reasonable to assume that those pressures may create additional work-related stress for home health aides, though admittedly through indirect pathways. These pressures are borne by various agency leaders to include financial, legal, and advisory board roles, but generally the responsibility for overall function of the agency fell to the top leaders.

I hypothesized that the strains these leaders experience would have specific consequences for aides and would also impact morale negatively. Agency leaders found these explanations plausible, assenting to the idea that these indirect stressors were connected ultimately to negative health outcomes for home health aides carrying out their work within these changing systems.

Demands were evident. Record numbers of requests for calls were coming in at all agencies I visited, taxing staff and increasing the rate at which agencies must refuse care to potential patients. And they all were refusing patients for one reason or another, mainly because they lack the capacity/staffing to manage the care. The highest reported rate was over 30%. Anyone who is seeking home care can attest that securing quality care can be a daunting task, even in relatively wealthy communities.

Agencies overall exhibited a high degree of ethics when I was present, claiming that they take cases on, whether they are hard or easy medically. However, some did have at least some minimal screening of cases that might be difficult to manage or time consuming by saying they lacked capacity to manage care well, so they would turn those patients (or their families who were doing the seeking) away – usually referring people to skilled nursing facilities, especially when there was an idea that home care would be short lived due to the patient's deteriorating condition. These were fine lines being drawn daily by agency staff with formal policies and

procedures in place for intake calls and plans for going into the home to undertake formal assessment.

> *There isn't enough staff to accommodate the huge influx of referrals for this whole transition to home and community-based care. I think our professional staffer put it really well when she was talking to one of our discharge case managers last week when she said, "Hey, you are on red bed status intermittently. And you put out an alert that there is a surge of patients that need to be moved to open beds. We are on red-bed alert every day." And that's the truth. (Mary)*

*Agency-Level Financial Pressures*

Home health care agencies can be for profit ventures or not for profit. Essentially, there are four types of agencies.

1. Certified Home Health Agency
2. Licensed Home Care Service Agency
3. Managed Long-Term Care (usually housed inside either the CHHA or the LHCSA)
4. Hospice

All of these types of agencies struggle to stay solvent and have been subject to takeovers and mergers as new health care systems evolve into larger systems, providing powerful economies of scale and some economic stability.

Many agencies have been merged, sold, or closed in recent years. No matter what size or how threatened the agency might be, all of the agency leaders report struggling with bottom lines and expressed a risk of going under financially. Keeping staffing levels at required levels is difficult, especially when recruitment and retention are persistent challenges. Operating margins are reported to be thin while bureaucratic burdens soar higher and higher, necessitating RNs to spend less time caring for patients and more time tending paperwork.

Financial pressures on the agency trickle down. The nurse in the field is pressured to work more for less and the home health aides come from group at high risk for personal financial difficulties that include overdue heat and electric bills and transportation difficulties.

> *Obviously the financial side is a major issue. There are more cuts on the horizon. There is no shock there. I am not feeling like I have the financial resources to do more for my staff. That has been my largest frustration over the years. I am watching the whole healthcare environment change within our market place. To explain that a little, there are three major competing health care systems in our counties right now. If you are not in a system, you will lose your market share. That's the long and the short of it. (Louise)*

> *The agencies are not making any money. Some for profit agencies are making money. As we ended the year, we had a loss. Salaries are over budgeted. I expected to have a much greater loss. And it's not because I have a yacht in the back yard or anything. Salaries. Pensions. Contract laborers, when we had to purchase services. Travel costs. Training costs over budgeted. (Marlene)*

> *These are the stressors start at the policy level. It may be intended or unintended. The pressure to control costs means that you have to give up control of the aides in this community. The work is off-loaded from the certified home health care agency to the licensed agency and they are going to pay aides less in the licensed agency. At the same time, the work may even be de-skilled if they can get away with it. (Jessica)*

*Medicaid Reform*

The central problems associated with the changes were that they were sweeping and yet the consequences were very difficult to predict. Furthermore, changes emanating from the Centers for Medicare and Medicaid Services (CMS) were constant and frustrating, creating an unacceptable level of uncertainty while at the same time the agency leaders considered it of

central importance to be well positioned for the changes. In the summer of 2016, agency leaders tended to be quite preoccupied with Medicaid reform and especially Delivery System Reform Incentive Payment (DSRIP) programs and their application to home health care. In NYS, for example, the Medicaid delivery system redesign has the goal of reducing hospitalization rates. Home health care, especially when well executed, figures prominently in the reduction of re-hospitalization rates. Participating in waiver programs requires thoughtful attention to emerging governmental fund sources, especially when they are related to mechanisms for collaboration in the regions served by the agency (NYS Department of Health, 2017)

> *The main stressors now for us and all of home care are that the landscape is changing. With Medicaid reform and DSRIP, we are asking," What is this going to look like in five years? How are we going to get reimbursed?"*
>
> *And it's changing all the time because the DSRIP is not the same as it was a year ago when I first started. They keep changing it. We are unclear on what will be needed in the future, but we need to be part of that. I spend a lot of time in the DSRIP world because I need to. It is not your core business, but you need to be investing, and putting something into it, so that you can understand it. But, you need to make sure that your core business is running very well as you are trying to understand what is coming down the pike. That's our biggest stressor right now. (Linda)*

Agency leaders stressed that it was not so much change itself concern them, since the American health care system has been characterized by change throughout their careers. Their concerns were that the DSRIP programs provoke an entirely new mindset that posed challenges because many in healthcare systems, they predicted, would resist these deeper changes. Most of these leaders had decades of service behind them, and yet their mood about DSRIP programming was visionary. They understood the benefits of the new value-based approaches that had more of

a population health emphasis. At the same time, they were somewhat stymied by the new types of community-based teamwork that would be required to make new systems effective. Willing to embrace change, they simply found the patterns of change to be required too unpredictable to put the right teams in place to make it happen on the ground. While committing new resources and energy to DSRIP projects, they also expressed doubt, especially in light of changing political administrations.

> *Medicaid reform is trying to accomplish a change to value-based payment with all agencies in the community working together for the outcome of reducing hospitalizations by 25% or emergency room use by 25% and only by all community agencies working together will we be able to accomplish that. And we are all going to share in the same pot of money. They want to create that team. That is what they are hoping to do. That's the vision that they have.*
>
> *They are trying to form more collaboration and teamwork within a community. The hospital isn't the only one to get paid when someone is re-admitted. The community agencies also have to share in that responsibility.*
> *I am concerned agencies will not be able to manage the change at the same time as handling so many difficult serious urgent medical needs. There is an expectation that these changes will flow nicely. But it could put too much strain. (Linda)*

*Bureaucracy*

Intense bureaucratic burdens placed upon home care agencies take up enormous resources. Not only are initial patient assessments lengthy but all required "paperwork" – electronic or not – seems like redundant overkill to all involved. Generally, as many electronic solutions as possible were in place, having been developed over time with various computer applications and other technology. Yet the inordinate volume of work was still obviously a central frustration for agency leaders and staffers alike.

> *Home care, more than in some of the other healthcare arenas, has a tremendous burden for documentation. More than you see in any other place. That original assessment, if it were on paper 30 pages. We have that burden. That always this drives our reimbursement. There is an algorithm that goes according to the answers to those questions that create our reimbursement rate for those 60 days. So, it's an important document. (Rose)*

In addition to the regular burdens, these agencies are routinely audited by CMS and have requirements imposed by the NYS Department of Health. According to one experienced agency leader, preparing for these audits and/or associated reporting can take as much as 30% of the annual personnel resources to complete. The possibility of reversing these bureaucratic demands is unquestionable. For decades, the detailing required by agencies has only increased and increased. Leaders believed that there were simply far too many well-qualified nurses stuck doing endless paperwork or recording routines on a daily, weekly, and annual basis.

*Lamenting that they "Can't" Pay the Aides More Due to Reimbursement Structures*

Agency leaders express a deeply held belief and constantly lament that they "can't" pay home health care workers more because the reimbursement rates will not support higher wages. Their view is that the reimbursement structures prevent them from paying higher wages and is their major obstacle. If it were not for these low reimbursements, they would gladly pay their aides more because they say they value them highly and believe that aides should be valued highly as an important part of the health care team.

> *But the other problem is that Medicare and Medicaid are not reimbursing us enough for that rate. (Betty)*

> *My thought is that we really need to pay them and provide them benefits. However, from our perspective, it can be quite a challenge to figure out how we can get them the best rate of pay that we can get them, based on our reimbursement from the government and Medicare, Medicaid, or private insurers. (Chris)*

Deeply embedded in the agency culture, practice and policy is the connection between reimbursement for patient care and paying aides. Agency leaders and top-level managers persist in believing that aides cannot be compensated for their time because of the way reimbursement works.

> *Another thing that happens a lot is that they go and knock on the patient's door. But the patient forgot that they had a doctor's appointment today. So all they can get out of that is that we pay them for one hour. Perhaps she was supposed to be there for two hours, but one hour is gone out of their paycheck. (Anne)*

The Fair Labor Standards Act requires a minimum wage of $7.25 per hour; however agency leaders expressed deep concern about the Governor's recent enactment of a new minimum wage scale in New York State. The law in NYS has instituted a series of increases taking place from 2016 to 2021 that increase the minimum wage incrementally from $9.70 on December 31, 2016 to $12.50 in 2020 (U.S. Department of Labor, 2014)

During these interviews it was fairly clear that the agency leaders had not completely thought through how these new minimum wage requirements would impact their agencies. There was an assumption that only those making under the minimums would be raised and there seemed to be no intention to pro-rate other aides wages upward to maintain the current ratios of

wages between less experienced and more experienced workers. These concerns seem like an enigmatic dilemma.

> *We would have real difficulty paying $15 per hour for all. The reason for that is the Medicare and Medicaid reimbursement. The reimbursement rate is barely enough to cover wages and benefits, let alone administrative costs. (Patricia)*

> *The aides are saying it's not fair. It's not right. They say, 'I have been here seven years and I only make $.20 more per hour than someone who is just walking in the door.' I had to ask the director of human resources about what would my answer be. I have had to use it a few times. I have to tell them, 'It's something I wish I could say was different. I wish I could raise everyone right on up, too. What you do is important and your value to need to such a good job at it, but right now there is no ability to increase everybody's day.' (Rita)*

Frequently, the right in the midst of these laments, the conversation would then move to how the best aides are passionate about their work and they would also discuss how important their work is and how much they love what they do.

> *But even if you didn't pay them more, they've got to have a passion for this job. Because they are not connected with the office and they don't see us every day, we have to make it worth their while. The thing is, if you love what you do, you don't care what the pay and these girls and guys love what they do. They love making a difference in the clients' lives. It's their patients who make it worth their while. (Betty)*

> *I can't afford to pay the aides $20 per hour because there's not enough money in the system. If you could go to McDonald's and make $15 per hour to slap a hamburger on a griddle rather than, excuse my French, clean feces off of somebody's derrière, there has to be a calling in here. There has to be some kind of caring part of you inside that balances out the financial part of it.*

There is evidence that home care administrators are not always in favor of increasing aides' pay rates. One agency leaders spoke about how "many New York City providers balked for years at having to raise wages after an aide worked for two years." She recalled having engaged them over this issue in 2004.

> *I sat at an HCA board meeting at the table and I was surrounded by New York City providers. I asked them, "Do you want the Home Care Association to be behind a public statement that we are not in favor of compensating these workers fairly?" When I left that meeting, I thought to myself that its good thing I don't have a car because I believed my tires would've been slashed! When I see some of those home care administrators pulling into a parking lot with their BMWs and their Mercedes-Benz cars and then they say they can't pay their aides any more than they do, it just really bothers me. (Mary)*

In noting that financial strain is a central stressor for home health aides, one agency leader discussed how most of the aides in her agency work two jobs. Besides that, she shared that when she began her position with this agency, she identified that some aides in her organization and under her management were working 90 hours per week for the agency. She understood that they needed to work so many hours so that they could survive financially, but she found that these aides were completely exhausted. Her solution was to provide financial counseling to assist them to find ways to work less for the sake of their health. She assisted them in locating resources in the community to augment their income.

In turn, this puts pressure on agencies to keep labor costs low especially because pay rates for aides is so closely tied to insurance reimbursement. It's an agency-level decision to keep costs closely connected in this way. Overall, with striking exceptions, aides can only really pursue guaranteed full time work if the agency can basically guarantee that reimbursement will occur for the services rendered by that aide. Aides who do work full time with benefits are

usually very experienced, very dependable, willing to take off-hours cases, and/or willing to take difficult or geographically hard to reach cases. In these tiered systems, there are usually only a few aides that actually hold stable, full time jobs with benefits. There is the persistent belief that agencies cannot afford to pay for the fringes and higher wages or more consistently promised hours for the majority of aides, otherwise they would not remain solvent.

> *For home health aides, I think the biggest stressor about that area is reimbursement. There is a lot of talk about living wage. And I am 100% in support of the living wage. But reimbursement has to follow. You can't pay more then you're reimbursed for the wage. There will be jobs, but the agency won't be able to survive. The reimbursement from Medicaid and Medicare has to go in line with increasing the aides a living wage. (Linda)*

*Reimbursement and the Living Wage*

Administrative staffers that work in home care agencies are chiefly concerned with chasing the details of reimbursement. Doctors' orders, notes, forms and other supporting documentation must be present in order for reimbursement to occur. Payers (insurance companies) seek to reduce health care costs to their organization through any and all means, including denying claims over relatively small details. Achieving payment for services rendered can be an uphill battle and seriously impacts the agency bottom line. Margins for health care delivery that never gets reimbursed can be high. Agency leaders were constantly talking about the many times they have to "eat those costs" especially if services were rendered in the field and then not covered later by the payers.

> *So many decisions are only made by reimbursement. So you call up a payer and they say yes we will reimburse that sold the person gets a service. And if you call a payer and a payer says no, then the patient doesn't get that. And you can't*

> *provide it because you didn't get paid for that. Decisions are made in our system by reimbursement. (Linda)*

*New Overtime Rules*

Under the Fair Labor Standards Act and New York State labor law (recently changed), working over 40 hours in a 7 day period must be paid overtime at the rate of one and half times the pay rate. On January 1, 2015 agencies could no longer claim an exemption for direct care workers who are providing home care services (New York State Department of Labor, 2014) According to agency leaders, new overtime rules coming from New York State have created financial strain and unintended consequences. Even more problematic, the new rules have created disruptive difficulties for patients.

> *We can't afford to pay overtime like that. I'll give you an example. We had a live-in for the case and we had one aide in there for the seven days. Now we can't do that anymore because of the overtime rules we can pay them overtime, but we can't afford it. So now that person is getting three or four aides in their mix. If you have dementia, that can be confusing. . But most agencies are doing this. Because they just can't afford to pay overtime. (Louise)*

> *The tracking and the amount of money that we have to spend now instead of a 24 hour live-in situation is a problem. . So I have now made them homeless. And I have three agents that of one aide taking care of that one patient. Now there is an elderly person who has to have three different people moving in and out of their home because of the overtime issue. Wake up, this doesn't make any sense. You are hurting people. That's the law of unintended consequences.*
>
> *So we are struggling with the whole overtime issue. I don't have enough bodies because now I am using three instead of one. That creates a financial issue for us because I have a reduced capability to take on additional patients. I have to use 3 aides where he might have taken care of three patients. Now I have three aides to one patient. After that creates a financial stress upon the organization. (Louise)*

*Mergers*

Executive leaders who navigate rough waters and keep market shares for their organizations create stability that transfers to more stable jobs for aides. In an already precarious job market, this kind of stability reduces work-related stressors for home health aides over the option of smaller underfunded agencies who can offer less resource rich programming and fewer options for care.

> *We took them over. They weren't gone yet, but they were losing. And they weren't doing a great job in home care. And so I created a deal. (Louise)*

As expected, mergers cause a variety of specific strains across any organization and home health care agencies have specific issues when merging. Legal, financial, and social implications of mergers in health care systems are beyond the scope of this research, but the evidence of work-related stress that results from mergers is crucial to observe. One agency and only one would not allow me to have full access to the facilities and people. I was not permitted to walk freely but given specific places to work and interview people. By e-mail ahead of time it was explained to me that not only was the building in flux due to a move, but there was an impending merger. The leading executive did not think it was in the best interest of her organization to have someone walking around.

Upon arrival, she further explained to me that just having someone come in from a university would make people nervous as though their positions were being evaluated and possibly axed or re-organized. People became far less trusting during mergers, she reported. Even if they communicated what the study was about, she believed people would suspect the worst and she did not want to put her people through that. She was generous with me in other

ways (sharing reports and giving extra time in the interviews). She was apologetic about limiting access. Clearly, her staff was already strained by the uncertainty mergers bring.

In general, home health care agencies I visited were going through changes of some kind. Either they were being purchased by an insurance company, being merged with another agency or taking over other agencies. Some were in a relative state of calm, but even these were concentrating on diversifying funding streams to protect the agency in the event of several different possible futures. Leaders were clear that change was a constant and that one major goal was to ensure the agency would survive changes intact and serving their target population. Survival mode was that palpable in nearly every case. Many had been through much upheaval in the 1990s and that helped them understand that they would always need to remain resourceful, ready to alter course and open to new directions.

The majority of agency leaders thought that the home health aides were mostly oblivious to these concerns "because their work is the same in any case." But, other perceptive leaders recognized that many aides were aware and concerned about both the large and small scale changes that they predicted might impact their work. With changes come policy shifts, changes in benefits, and other changes about the way the workforce would be expected to interact with the agency.

One way agencies cope with financial strains is to develop a variety of programming that can be reimbursed. The most common situation is for a Certified Home Health Care Agency (CHHA) to start or take over a Licensed Home Care Service Agency (LHCSA). Some have taken over or merged with several LHCSAs. Besides or in addition to creating advantageous mergers, many agencies offset expenses by offering palliative care, hospice, social adult day care, lifeline services, tele-health services, home safety modification lines, or they own a

separate entity that will manage the MLTCs. Alternately they contract with agencies who used to be competitors, if that has cost cutting advantages.

> *In the future, they will be blending the CHHA and the LHCSA. (Olive)*

> *The LHCSA used to have their own employees but now it is just a subsidiary… so all the employees are employed by the "main agency,"* but most of the home health aides work through the CHHA. So there is the CHHA and the LCHSA. They have always been in the same building. It was about 5 or 6 years ago that they said the LHCSA is not going to have any employees anymore but they will all be employees of the "main agency." (Patricia)*

> *I think the days of independent "agencies" are probably going to go by the wayside. At least in this area. We are going to merge into a large health care system. This health care system has purchased two hospitals within this county. One is our largest referral source who we have had a relationship with as far back as the turn-of-the-century.*
>
> *Our founders were instrumental in starting the hospital. So, we share a very old history. I would say that 30% of my revenue comes from that hospital. And it's always been tied to the agency as far back as when we were founded. (Louise)*

Agency leaders concerns are threefold. They want to 1.) Do more for staff, 2.) Acquire more resources to start programs that the staffs want, 3.) And maintain market share. Mergers with larger systems become more attractive because there is greater financial stability and more assurance that referrals will keep coming in via the system. This set of circumstances allows for a higher quality of home care, more stable working conditions, and a host of other "economies of scale."

*Benefits of a Resource Rich Home Health Care Agency, Especially for Immigrants*

Most home health care agencies operate as not-for-profit agencies. But those who are able to provide quality care and operate with room in their budgets for new or experimental programming seem to offer more effective workplace support. In general, there is enthusiasm on the staff for the "new program we are trying" or the "new population we are focusing on for outreach" or "the research we have conducted." One or two agencies that could afford to expand their trainings sessions or their activity beyond the bureaucratic elements and straightforward caregiving created more interesting environments for their management, RNs and their home health aides. These sorts of activities can buffer stress by increasing rewards for workers and reducing barriers to more stable work, especially for some immigrant workers.

*In our organization we concentrate on providing culturally competent care to special cultural groups. Through our own research we discovered that the differences were cultural. We have developed career models for various cultural groups. One of those groups is the Hispanic community and another is a growing refugee community such as Nepali or Somali. What we've found is that our home health aide training program became the door for immigrants to pursue what they consider to be the American dream.*

*Some of the home health aides that we have trained were doctors from Cuba or nurses from Puerto Rico and other Spanish-speaking countries. They couldn't work as nurses here and it wasn't only the credentials but it was the language barrier. They want to do something of value in this new place they call home. The respect and regard for their role is unbelievable. They are so grateful for the opportunity to be able to work. It's transformative for them and allows them to get a start.*

*For instance, some home health aides had been doctors. During the time they were home health aides we were supporting them with grant funding so they could continue to go to nursing school and now two of them have passed their nursing boards and so they've gone from being a home health aide to becoming an RN and they are learning English. They work with their patients in Spanish. All of the materials are also in Spanish. (Emily)*

*Schedulers*

Agency leaders unanimously endorse the "schedulers" as the best source of information regarding the home health aides' stressors, owing to the fact that they work closely with the aides on a daily basis to coordinate their ever changing schedule. I was able to spend time in the scheduling offices at each agency and with several agencies I was permitted to take time to interview, carry on group brainstorming activities, or otherwise observe the schedulers in action.

The schedulers at each agency undertook complex duties to arrange for formally required scheduling and for informally requested preferences for both the aides and the patients. Some used elaborate computer systems, while others relied on basic spreadsheets and detailed handwritten notes. All schedulers I spoke with attested to having much of the information required to do their jobs stored in their heads as they have developed their own methods for keeping the agency efficient, productive and on the move in the community.

> *They do just juggle stuff and try to coordinate their days. Our LHCSA has 5 coordinators during the day. They have someone who is on call at night. They cover between 7 am and 5 pm. For the CHHA, I have 8 coordinators. We have nurses on call. For example, a colostomy might be a mess and they have to fix it. The schedulers must assign within certain counties. There are satellite offices. Those 8 people are scheduling 300 clinical staff and 1500 -1600 patients. That is the average daily census. (Terry)*

> *Because we pay per diem, and we don't have a set pay scale - then the coordinators have a very difficult time. They know all the details of these peoples' lives. When their kids have sports, and even whether their boyfriend is away. They managed all the changes to the availability that change week to week. (Cora)*

While the schedulers' skills are remarkable and quite unique, and the positions seemed to pay well and were filled by entry level management personnel, it was surprising that upper level

management seemed fairly oblivious to the amount of power the schedulers had over the aides working lives. While the upper management tended to see schedulers as these wonderful saviors of the organization because they were expert problem solvers and bore the daily responsibility of running a tight ship financially, maximally dispatching aides to their cases with good consideration of mileage, realistic time frames and keeping track of both labor regulations and company policy.

> *The aides' cases are specifically timed, but if a home health aide calls off or we are not able to place a home health aide, it is the nurse or therapists responsibility to offer personal care. So, maybe this client is way out in the country and there are no bus routes out there. For the scheduler, there are no solutions. The scheduler can offer an incentive or offer them extra pay for driving, but in the meantime the nurse or therapist must do it. (Terry)*

Schedulers were sometimes frustrated with their middle management role in that they had to make decisions about how to report about aides who were missing work without excuse, out sick, or having some kind of crisis. They demonstrated great familiarity with the aides and their stressors, but frequently had little compassion and expressed some very "high and mighty" critique for the work ethics of the "millennials" (usually defined as those who came of age at about the year 2000 or later). The schedulers as a group were usually taking up one shared office. Some large agencies had up to half a dozen schedulers working together in a room to smooth all the logistics for day-to-day operations.

Schedulers I spoke with and observed practiced favoritism toward the more reliable and agreeable aides. Any aide perceived as unreliable was unlikely to get more assignments added or preferred clients. They admitted that aides were either tempted to or actually did "bribe" them with extra attention, small gifts, or other perks to "stay on their good side." Most of the

conversations were engaged in with some humor and laughter as if it was just inevitable that these schedulers were going to have some power over the aides' destiny. With aides mainly complaining that they have difficulty getting enough consistent hours, the schedulers can seem like they are a barrier to financial stability for the aides.

From my observation of scheduling offices over eight of the nine agencies, most schedulers were fair and quite busy, so they were not all prone to the subtle favoritism described. They could be quite sympathetic to the plight of the home health aides, especially when they had truly difficult personal issues such as illness in the family or broken down cars.

> *If you talk to my schedulers whose responsibility is to make sure the patients get seen in any given day, they know the people that won't say no out of the obligation for the urgency of the need. If the scheduler is having trouble getting something covered, he will look to find the aide that saw that person the last time. He'll call them up and say, "Mary called up and said she is coming back and she asked specifically for you because you did such a great job." Schedulers will stretch the truth to achieve their goals. (Terry)*

The aides' perspectives on the scheduler's role varied. Many viewed the schedulers in a good light because they were effective in getting them what they need with regard to their work and personal schedules. But, just as frequently aides perceived that they had yet another person in authority over them and that they were unable to get the full number of hours they would like to have assigned. Some agency leaders had observed disparaging remarks made by schedulers that were overheard by aides and the leaders cautioned the schedulers to be careful about what they say about the aides. My own observation included some schedulers who respected aides (especially if they had actually been a home health aide or in health care delivery themselves),

but other who were quick to make remarks that betrayed a condescending attitude toward the aides, whom they perceived as lower in status.

When schedulers have favorites or have tendencies to schedule in certain patterns, some agency goals may be unintentionally dropped. For example, some aides' skill levels may not be kept as up-to-date as they would if a more even rotation of assignments were in effect.

> *The schedulers were reading the aides a lot of information they didn't need to know. The schedulers were picking and choosing among the aides. And so now you end up with an aide that has not done a bed bath in two years. She gets very nervous because she hasn't done a bed bath. So we had to bring her back in and train her again. Because of that, the schedulers are not supposed to give those kinds of choices. For the most part we want the people to keep their skills and keep them ready and willing to take on whatever they need to do. (Cora)*

*A Different Take on Aides and Stress*

A few interviewees were very quick to add that the aides stress levels were not worse or heavier than the registered nurses. Carrying on the long tradition of the "visiting nurse" who engages in the provision of health care in the home, these registered nurses supervise the cases and keep the team cohesive and in good communication. They usually have slightly heavier caseloads, owing to the fact that they are not in the home as long as the home aides. Some agency leaders believed that the aides led a relatively stress free working life compared to the registered nurses because they had less responsibility and higher levels of agency support. They believe that technological applications have reduced job strain for the aides. They suggested that I should be studying the nurses as well as the aides, "if I am interested in stress."

> *They probably don't have that much stress because you are supporting them as an agency. We create their schedules. We tell them what to do. The telephony that we*

> *have allows them to document immediately so there isn't that hang up that they have to do paperwork when they get home even though their children are there they have to make dinner. They don't have to write all those notes. (Brenda)*

*Recruitment and Retention*

Increasing demands for home care services pressure home health care agencies to fulfill their missions. Agency leaders are pained when they must admit they have to turn down cases due to lack of capacity. Even when home care agency executive, CEOs, directors and second in command managers spoke about pay scales as a concern, the reasons for concern about wages were ultimately tied to concerns about recruitment. It was not unusual for a leader to stop a conversation cold and gravitate to the problem of finding more aides to do the work that existed now and would be coming with increasing demands. Unmet care needs in the community were deeply concerning. In one of the LHCSAs associated with the CHHA, only 15% of requests for service resulted in admission. Some 30% of referrals were turned down due to the aide shortage. The remaining 55% were referred to the CHHA or other agencies or institutions.

> *There are cases that we can't fill, so we utilize other agencies and in most cases what we are finding is that they don't have any capacity either. (Kim)*

Home care agencies need to constantly recruit and retain home health aides and failure to do so will equate into long-term revenue losses. Recruitment was a serious problem on the minds of the leaders. Previous strategies for recruitment were becoming increasingly ineffective. Job fairs and recruiting events reportedly produced very few attendees and even fewer recruits. Recruiting events screen for commitment, integrity, communication skills, physical ability to perform the job and screen for drug use, but even when events are carefully targeted toward

mature people wanting a career change, veterans in need of work and those who see this type of work as a vocation, they are often unsuccessful.

> *What we have found is that either you love it or you hate it and you know within 3 to 6 months if it's for you. So while we continue to try to recruit, we may bring in three orientees, but two leave. So we are struggling right now. We are extremely short staffed. (Louise)*

Agencies have been forced to shift resources from other important areas and train their attention on recruitment and retention.

> *We are putting more effort into recruitment and retention, we have identified that what our agency is, it is a recruitment and retention agency, doing patient care comes after you recruit and retain people. If you don't have them, then you can't do the other part. Instead of so much focus on patient care and the quality of patient care, we have put some of our time in investments more into recruitment and retention. And being creative in our recruitment and retention. (Linda)*

With open endorsement, agency leaders believe that all efforts should be made to improve the appreciation and value of home health aides within society-at-large, the health care system, and within the agencies – especially on the health care team and with the client/patient.

> *We as a system, we as a provider, we as an industry, and through our industry organizations, I think that we should and could come together to really elevate the profile of the home health aide, and what they do and their importance in the community because I think that if you make it a more high profile job and that people would understand the personal satisfaction that they can get out of making a true difference in someone's life, that will resonate with a lot of people. They would know that people recognize the difference that they make. (Chris)*

Agency leaders also shared insights about barriers to recruitment. Supplemental analysis on this topic appears in Appendix G.

## FUTURE OF HOME CARE

Agency leaders spoke thoughtfully about the future of home care. They are chiefly concerned about the shortage of home health care workers. To position themselves to survive health care industry shifts, most are merging with larger networks to ensure stability. They held expansive view of home health care provision. They shared the vision that health care, in the future, will be conducted more and more in the community. Home care is the least costly direct care provider. More complex care is occurring at home than ever before.

> *Right now they are doing 23 hour hip replacements. People come out of the hospital in 23 hours. They have an anterior approach and they're out. And similar from the replacements I had two knee replacements. I was in on the third day they let me out I was home. (Louise)*

People are most comfortable at home. Going further, they see activity fostering prevention activity as a natural extension of the home care mission especially with the goal of keeping people home more often and longer. This trend is cost effective overall, but with continued efforts to keep costs low, it is reasonable to suggest that there will be continued pressure to keep wages depressed.

> *There are great movements toward less institutional-based care. That is a great opportunity for home care. In the vast majority of cases, home is where the patient does the best, whether recovering or just caring for someone in their chronic disease process. They are able to be in the home environment, supported by family, friends, and caregivers. I perceive that there will be continued movement toward home-based and community-based care. (Kim)*

Given future home care demands, agency leaders are concerned about future professional staffing at higher levels. There is a perfect storm of problems. Experiences staffers are retiring just when demand is peaking. Who will the reins be turned over to? Larger health care systems may be able to manage it. One leader believed that even the people in their forties who have twenty years' experience will not be able to manage the demand.

> *I just don't see that group being prepared. Maybe it's because my world is small here, but I don't see it at national conferences. There's a lot of gray heads and a few people in their twenties and are nobody in their thirties and forties entering their field. They didn't come along. Everyone was so capable and they just kept doing it well themselves. So now, they do everything. But they are getting tired. Not physically, but mentally, tired of the game. (Gretchen)*

Other leaders imagine various new configurations of caregiving that might take place in homes or in other community based settings.

> *The future of health care is going to be in the communities. I see things evolving. We need more services in the home. We are going to be using nurse practitioners and physician assistants to be going into the homes because they're not enough doctors in many areas. New professionals don't see this as demeaning but believe it is an important aspect of the future. That is very enlightening. (Chris)*

## RESULTS SUMMARY

Increased demand for home care work will continue to drive agencies to expand services and develop responsive programs in the community. In the next number of years, there will be an opportunity to enact a new vision for home health aides, elevating their occupation, raising wages and improving the conditions to protect both physical and mental health for those who engage in this highly personal, deeply meaningful medical care delivery. The collective voice of agency executive management and those in the topmost leadership positions has identified challenges to that new vision. Agency leaders agree that work-related stressors for home health care in general and more specifically for aides are concerning. They describe the demand on aides as high, especially due to low-wages, lack of benefits and the instability of hours. They acknowledge that aides often face poor physical conditions and carry out difficult emotional labor while forced to cope with challenges around transportation, childcare, and balancing work and non-work life. Agency leaders realize that aides come to them with lower education levels and almost non-existent personal and financial resources.

Agency-level stressors, it was agreed, trickle down to impact aides' work-related stress levels, directly and indirectly. Agencies are burdened with record levels of inquiries for services, excessive bureaucratic and regulatory demands, and constant organizational change due to mergers, closures, and especially matters related to reimbursement. While keeping the core functions running, agencies must continually position themselves for imminent future change. The leaders cannot ignore the way insurance companies, CHHAs, LHCSAs, MLTCs and other entities related to their operations must run in the future. They must pay attention to Medicaid and Medicare reforms and make difficult and aggressive moves to keep the best network of services running in their communities.

To promote stability and health in their organizations, dedication to internal operations that address the core elements of work-related stress will be crucial. Agencies must reduce unreasonable demands while providing social and workplace support, including placing new managers with nurturing and respectful management styles. Agencies must carry out effective and resonant in-service training programming, while paying attention to recruitment and retention strategies that correct effort-reward imbalances.

Staying alive in a changing landscape of home health care created challenges to agencies' ability to ensure quality home health care delivery, however agency leaders were found doing whatever they could think of to enhance job satisfaction among aides. Endeavoring to find those special people who work for the love of their clients and not for monetary reward presented the grandest challenge. Controlling work demands through technology offered ongoing promise as cell phones, telephony systems, tele-health, and other computer based systems streamlined logistics and paperwork burdens.

Perhaps observations about schedulers being a source of power provide a flip side of two coins. While schedulers were often found exerting more power over the aides' working lives than expected and even functioning like the aide's third boss, the schedulers were also reported to be the most socially connected to the aides, creating deeper bonds between the aides and the agency than would otherwise be in place. Combatting social isolation for aides was an evident goal of nearly every leader.

With generous interviews and extensive access granted, the women running these home health care agencies were marked by high levels of intelligence, articulation, and action on behalf of their mission. Due to their persistent adherence to the concept that aides' pay must be related directly to reimbursement, leaders continually bemoan the fact that they were not able to

pay aides more. However, they were actively interested in the soft management of aides, social assistance type solutions, and the provision of perks and recognition for aides. All agency leaders spoke eloquently to the ideal goal of elevating the role of the home health aide on the team through a variety of cultural and institutional efforts. All except one agency leader believed that the strains of the agency trickled down to all levels of the agency and that even indirect stress could and did negatively impact the wellbeing of home health aides.

# CHAPTER 7

# TOWARD IMPROVING THE PHYSICAL AND MENTAL HEALTH OF HOME HEALTH CARE WORKERS

The multi-disciplinary network of care work researchers has been making significant contributions in recent years. Insightful research has elaborated the nature of care provision (Folbre, 2012), characterized occupational health hazards (Markkanen, et al., 2014; Quinn et al., 2014; McCaughey et al., 2012; 20214), explored the lived experiences of home care workers (Stacey, 2011), reviewed the history of care work (Duffy, 2011), raised complex issues (Duffy, Armenia & Stacey, 2015), engaged in political inquiry (Boris & Klein, 2012) and has even provided inspiration to galvanize a movement to reduce social injustice related to care work (Poo & Conrad, 2015).

This dissertation research examines the health of home health care workers in light of their experience of occupational stressors. New knowledge relates how the precarity of work, the way work is organized within the social structure of the agency, and other key variables are related to the experience of work-related stress for home health care workers. By drawing from medical sociology (Link & Phelan, 2010; Wickrama et al. 1997; Williams & Sternthal 2010), sociological stress process modeling (Pearlin 1999; Thoits 2010l) and well-established public health models (Karasek & Theorell 1981; Siegrist 2000; and Landsbergis, Schnall & Dobson, 2009), this research advances theoretical insight about work and health. By blending theoretical traditions, this research describes work conditions in this sector of the health care workforce, especially as these conditions may be characterized by the workers' marginalization, their experience of racial discrimination, and their endurance of multiple caregiving roles, and their exposure to hazardous physical environments.

This mixed-methods dissertation aimed to address a central research question: For home health aides, what kinds of individual, workplace and social stressors are associated with self-reported health and occupational health? Statistical modeling aimed to isolate variables known to be connected to general and occupational health, but also to expand the social context (Pearlin, Schieman, Fazio, & Meersman 2005; Muntaner, Solar, Vanroelen, Martinez, Vergara, Santana, Castedo, Kim, & Benach 2010; Schnall, Dobson, & Landsbergis 2016).

Phase I of the study responded to inspiration to apply stress models with more attention to women, minorities, and in certain industry sectors (Landsbergis, Grzywacz, & LaMontagne 2014). The study estimated models using data from the National Home Health Aide Survey. Theoretical constructs for stress, stress process, and psycho-social dimensions of home health aides' work experience were useful for the study design. I conducted a multinomial analysis, using the CATMOD procedure in SAS 9.4. Dependent Variables included Self-Rated Health (constructed with four categories) and Occupational Health (constructed as "days away from work" due to injury and separately the "number of injuries"). Independent Variables emphasized five thematic areas:

1. Socio-demographics
2. Work-related stress constructs
3. Work-relates stress buffers
4. Work arrangements
5. Agency characteristics

Phase II involved participant observation and two sets of interviews collected at certified home health care agencies geographically spread across Upstate New York. Home health aides (n=25) and agency executives (n=20) gave in-depth interviews averaging one hour in length.

Spending two days in the agency afforded sufficient access for observation, initiating small conversations, and even round table discussion with schedulers, nurses, and information technology staff. In all but one location, this interaction was encouraged.

This research has used mixed-methods to explore the unique work strains found in home health care delivery. The conceptual framework for the study provided coherence for the mixed-methods design to allow for interchange to occur between qualitative and quantitative information. Themes explored in the quantitative phase were carried forward into the qualitative work. Research designs for each phase of the study sought to amplify the responses of workers and those who manage them by not only mining existing data from the National Home Health Aide Survey as others have done (McCaughey et al, 2012; 2014), but also by generating the opportunity to observe operations firsthand and ask questions of both management and workers in home health care agencies.

## DISCUSSION

### Quantitative Study – National Home Health Aides' Survey

Work-related stress is implicated in the development of serious chronic health conditions, most with devastating morbidity and mortality (i.e., cardiovascular disease). In addition, work strains are implicated in higher occupational injury rates. Originally, the NHHAS aimed to elucidate the serious problems recruiting and retaining home health aides under conditions of growing demand for long-term care services. But, the data set was useful for exploring the impact of work-related stressors on the health of home health care workers, providing a broader view of factors affecting work-related stress. The NHHAS was expensive to collect and responsibly managed by the CDC, but has not been used to explore the relationship between

stress processes and workers' health outcomes. Home health aides were queried about the specifics of their lives in a detailed manner consistent with sound social science methods, providing an unusual opportunity to examine work-related stress in a specific low-wage occupation. The additive models estimated in this research demonstrate the robust nature of both Karasek and Siegrist models, while also featuring significant sociological determinants and structural factors at the job level and agency level.

With only minor exceptions, the findings were consistent across the three measures defining health. Both the demand/control/support model and the effort-reward imbalance model factors demonstrated significance in the fully specified model. This demonstrates that even a wide variety of theory driven agency-level factors are active in the model, the three theoretical strands remained highly significant, while those various agency-level factors remained largely insignificant. Clearly both Karasek's Demand/Control theory and Siegrist's Effort-Reward Imbalance theory were consistently significant. The modeling further makes clear that other significant factors such as being Hispanic, having low education levels, enduring care burdens outside of work, experiencing discrimination on the job, or just being an older home health aide reduces chances of being in good overall health.

Usually being married or partnered increases the odds of good health, but in this sample, the married people and recently separated people had worse self-reported health. It may be important to note here that since the study sample is mainly women, it is difficult to determine if the women are report illness or injury less frequently, likely because they have children and are pressured to work through injury or illness because their family is reliant on the income.

Agency-level factors were also important. Training methods and a supportive agency related to better health. Figures suggesting support at the agency level is significant, even when

supportive supervisors are not consistently significant. When aides have a sense that the agency as an entity supports them, they have significantly better self-rated health, but this had no effect on the occupational health measures.

Perhaps unexpectedly, work arrangements and tenure rarely impacted health. Only when aides had been working in the same agency more than 20 years did they report worse health. Since the figure is adjusted for age, it suggests that exposure to the work environments over time is detrimental to health. Agency factors may have an influence on health. Aides working in agencies with both hospice and home health care were slightly healthier.

The consistent finding that blacks were less likely to be injured or have days away from work due to injuries or illness is counterintuitive and contradicts most conventional understanding about the African American experience of health on the job. Literature consistently demonstrates worse health and worse occupational health among black Americans. This finding is may be the result of significant underreporting by blacks when they are injured or ill. It is far more likely that blacks work sick, delay treatment and refrain from reporting an injury or illness as work-related to avoid pursuing workers' compensation. This avoidance may be due to stigma associated with being on workers' compensation, the hassle and discrimination felt when attempting to access the workers' compensation and the very real fear that they will lose their job if they pursue a workers' compensation case.

*Limitations of the Quantitative Study*

Although the quantitative analysis provided substantial insight into the factors that influence home health care workers' health, there are some important limitations that must be taken into consideration. Measuring occupational health is rarely done in a comprehensive way.

As in this study, researchers tend to bundle sickness absence and numbers of injuries to create a composite view of occupational health. Most often the data required to get a more accurate view of occupational disease is unavailable, so measures favor the capture of injury over illness. This is problematic because the incidence, prevalence, and death rates from occupational illness are estimated to be six to ten times greater than from occupational injury (Leigh 1997; Steenland, Burnett, Lalich, Ward & Hurrell 2003). So, these models likely underestimate workers' health problems. Furthermore, the direction or intensity of the findings may even change if more accurate counts of illness were incorporated into available data for analysis. In addition, the healthy worker effect is always an important factor, but may be more so in the case of home health care workers because one must possess a certain physical fitness and mental propensity for this type of work, which could result in strong selection bias.

Occupational injury, disease, and/or death is, by nature, complex and less amenable to epidemiological and statistical manipulation than other types of medical conditions that might be studied. Complex socio-cultural and temporal elements must be modeled carefully and even with precision it is difficult to say if the data story matches the human experience. Some weighting of variables used in scale construction were only partly based on previous empirically validated scales. Some scale construction, therefore, included somewhat arbitrary weighting. In addition, some counter-intuitive findings in this study will require re-examination, ideally with fresher data sets, to determine both if both the direction and significance will hold. Empirical evidence from cross-sectional data such as in this study can only represents a slice in time rather than the full range of the phenomenon as it exists across time. Since stressors accumulate over time, longitudinal observations would be superior.

Qualitative Study – The Home Health Care Workers Voices

Home health care workers' in-depth narratives about their work histories, their work characteristics, and their elaboration of stressors generated both expected and new themes. This convenience sample was generally very experienced, having worked longer than average tenures at their current agency. The interviews were confidential. Supervisors permitted workers to engage in the study during paid work time. Workers discussed a wide variety of situations and circumstances they have encountered on the job. They characterized how they build their skills over time, how they interact on the home health care team, how they relate to the agency and even shed light on the deeper contexts they work within, describing their encounters with death and how they build trust in the client/patients.

Even though these workers demonstrated strong connection to the employer, workers were forthcoming about their work-related health experiences. The percentage of the sample that had been injured on the job was substantially higher than expected. Workers spoke of flat wages and absent benefits even when they had been working in the same agency for years. Workers identified instances of inadequate training and social isolation as problematic. In addition to an overall experience of racism, workers explained specifics about discrimination they experienced on the job. When workers discussed staying healthy at work, they generally gravitated toward high psychosocial strains involving patient/client's family members, grief from a patient/client's death, financial strain, extensive time in traffic, and transportation or childcare hassles resulting from erratic schedules.

For the purposes of the study, I characterized elaborate descriptions of work demands, latitude, workplace support, and effort-reward imbalance. Findings confirmed that most aides do not feel terribly pressed for time while at the client/patient's home. They are given the latitude to

take all the time needed for basic activities of daily living. Their time pressures and other hassles arose more from the precarious scheduling.

In addition to the explorations of the classic models of work-stress, I emphasized findings with themes of workplace violence, racial discrimination, financial strain and issues of work/life boundaries as emerging stressors. I also emphasized agency-level hierarchies and policies as potential sources of work-related stressors. All of these are based in social contexts and social structures. It is difficult to say which stressors had a greater impact on overall health, mental and physical, especially because the severity of the stressor matters. Any prioritization I impose would likely be artificial and more informed by bias than the qualitative data.

Home health care workers, like many worthy occupations, develop the art and science of their craft over time. The way aides adjust to the patient's preferences and coordinate their basic care, brings dignity and voice in the smallest matters of life. The work requires sound judgment, good observational skills, superior communication skills and a unique capacity for empathy. The work is "heart and soul" work. Aides with experience describe the creation of bonds in the deep personal connection formed through helping in the basic routines of life as a person navigates needing help with those basics that most take for granted.

Many home health aides reject institutional setting due to high patient loads per shift such as they find in a typical skilled nursing facility. From the home health aides' perspective, these patient loads prevent the possibility of caring for the whole person. They gravitate away from mechanical, quick and impersonal care, unable to tolerate how the corners cut when interpersonal relations cannot be well established in the rushing to get higher numbers of bodies cleaned and fed in short time frames.

Aides pursue health improvement with the clients over time, by working jointly on health goals, seeking to maximize autonomy and quality of life during an extended illness, permanent disability or journey unto death. The aide learns the preferences of the patient in order to honor his or her dignity, to allow for expression of their unique personality and provide the best comfort possible while care is being delivered.

Sometimes clients' personalities are difficult to manage especially because the patient may be coping with pain, with new disappointments in the bearing of their serious condition, or some other factor that is hard to define. But, the persistent home health aide adjusts to the picky nature of one client or the belligerent nature of another. They learn how to brighten the world for homebound, often depressed clients. In order to accomplish this, aides describe a process. At first these processes are unfamiliar and stressful, but, as the aide gains experience, they look forward to the challenges that new cases bring. They befriend their client through observation, trial and error, and by developing a knack for paving the pathway to improving the basic health of the client and also their home environment.

The client/patient's home can be very unpleasant and unpredictable. Negative personal characteristics, filth in the home, odd habits, or the stench of feces, urine, vomit and other medicinal smells are the norm, as often the client hasn't been well for some time. But the supportive aide sees four to six patients per day while maintaining good relations with the supervising nurse, the agency schedulers, the "higher ups" in the agency, and their fellow aides. Often sent to both good and bad neighborhoods, the home health care worker must go to the bad side of town, or alternately to rural areas and sometimes in severe weather. They may encounter pets, and sometimes they run into idiosyncratic, drug addicted, or otherwise aggravating relatives who may be living with the patient.

Home health aides learn how to change things incrementally with each home visit to accommodate their patients. Those home health care workers who participated in this study provided a very human depiction of their journey from "not knowing how to take her" to a new kind of "client friendship" that they enjoy. They describe "this journey of learning from mistakes and finding your way into a routine" with them that they keep repeating. They admit it's a learned process. Eventually aides say that they "know how to take her" and then you go with the flow. The aides find ways to recognize the impact of their client/patient's illness and "eventually get their issues down pat." The work is nuanced. Home care workers have "bags of tricks" for different personalities. They have to consider how to build trust through simple acts of kindness so that they can reach into the ill person's world to create bonds.

Going further, aides must deal with death as it approaches slowly or comes upon the patient more suddenly. One aide remarked that she "knows how to be, and knows what to do" as she strives to achieve calmness for the family as their loved one faces their last days of life. This is an important human work. Aides become close with the client and report anything happening with the patient to the registered nurses supervising the case. Aides take responsibility for the patient at this crucial time. First of all, they are simply present. However, they also know how to situate the environment. They have already spent time getting to know the patient. Trust is built, and bonds form. This bonding happens during the time when the aide is setting up that home so that it works while the patient is sick or dying and the aide is "making the scene work" for the entire family.

Home health aides are eager to share about the meaningfulness of their work and given the strong attention this theme has had in the literature (Folbre, et al., 2012; Stacey, 2011), it is not surprising to hear workers say they love their work and they do not do it for the money

(Folbre et al., 2012). Similar to descriptions in Clare L. Stacey's "The Caring Self: The Work Experiences of Home Health Aides" (2011) these workers describe emotional labor. Some seem to feel very highly rewarded by fictive kinship relationships, even though they are realistic and resigned to their limitations especially in the final realization that the family copes with the invasion of a person into their family space through creating a special role for the worker, but that those bonds fade, nearly instantly when the patient's life end. Workers in this study were realistic and even resigned about that type of interpersonal loss when describing their work conditions. In fact, workers construct an identity of the "caring self" with phrases to identify themselves more different than others, purporting that they have more capacity than others to care for the sick and dying (Stacey, 2010).

The quantitative portion of the study demonstrates that increased care burdens, such as these "caring types" were likely to encounter in their personal lives, were associated with worse health. These findings were also clear in qualitative narratives about multiple caregiver roles being difficult to maintain for home health aides. Findings in the quantitative study indicated that racial discrimination on the job negatively impact health and occupational health. Workers' narratives support this potential, as discrimination was multifaceted and common.

Central in the findings was an attempt to characterize the complexity and nuanced nature of home care work in order to both validate the work and underscore the injustice faced due to low occupational prestige and low pay. Qualitative findings from discussions with workers mainly emphasized personal and social contexts, but they also amplified the quantitative findings related to injury rates and factors that tended to reduce self-rate health. Both quantitative and qualitative results give disproportionately high accounts of injuries for this occupation. In both parts of the study, access to appropriate care is hindered by lack of insurance, and other

significant barriers to appropriate remedies for work-related injury. At least two women of color vividly related the details about their careful decision to avoid reporting their injury to their agency as work-related or to utilize the workers' compensation system (in their recent past) due to concerns about the potential for being fired if they did pursue a workers' compensation case.

Qualitative Study – Agency Leaders' Perspectives

Themes from examining the home health aides' voice and the agency leaders' perspectives overlapped. It is not surprising that agency leaders and home health aides see most of the same stressors in the working lives of home health care workers. Most of the agency leaders had been trained as nurses and then rose through the ranks of home care organizations because their talent for administration became apparent. From this training, they seemed uniquely observant and empathetic toward their staff, even down to the level of the home health aide. They are quite aware of the aides' daily circumstances on the ground. On the other hand, these leaders identified more readily with their registered nurses than with the home health aides. In some cases, they carried authoritarian and condescending attitudes toward the home health aides, believing that the home health aides have it easy while the nurses do the "real work." There is a subtle carryover of stigmatizing attitudes (i.e., referring to home health aides as "girls").

Agency leaders tended to have the ability to break down the stressors and also to see them systemically. They understood that workers faced emotional labor from being so close to serious illness and death on a regular basis. They also observed that aides have to cope with difficult patients, harsh workplace hierarchies, and work ethics issues. Some workers lack discipline, while others overwork and "try to do it all." Agency leaders note difficulties in getting

some aides to adopt new technologies. Leaders understood that aides face difficulties with basic hassles like keeping a car on the road and coping with financial strain, the result of erratic work hours assigned week by week.

Most agency leaders were savvy about their industry, smart enough to stack their board with movers and shakers, and accessed key consultants to maximize the changes of survival of their agency over time. They believed that the agency-level factors did pass downward all the way to the home health aides in the form of work-related stressors. Primarily, the agency faces financial pressures that are passed on in the form of low pay and other "nickel and diming" of the aides by policies like limited travel reimbursement or paid time off. Mergers, they observed, were very hard on their entire staff. They were singularly stressing the need for Medicare and Medicaid reform to include home health care agencies' concerns.

Agency leaders lamented that they cannot pay aides more and engage in providing creative non-pay related perks designed to reduce isolation and express appreciation to the aides. Most aides do not engage deeply with these events, but they do appreciate quality face-to-face in-service training, when offered. Schedulers were identified by both aides and agency leaders as a location of power and control of operations in the organization. Recruitment and retention occupied far too much management resources, but was the central immediate worry of most middle managers and even top-level managers. They knew how and where to recruit, but the numbers were simply elusive. Few people seek to enter this work or remain in it very long.

Unsurprisingly, agency leaders were less focused on the experience of racism, the problems of care burdens outside of work, or other factors brought forward in the quantitative part of this study. Stories of discrimination tended to focus on agency policy and practices to avoid it. Agency leaders were more apt than aides to identify patterns of cumulative

disadvantage from a variety of sources of stress. Programs reminiscent of social services are often implemented internally at the certified home health care agency to help shore up the "social problems" the aide may be facing. This combats the crises that crop up, especially those that keep workers at home rather than on the road to the homes.

Agency leaders and aides have variation in their perspectives on the relationship between stressors and the health of home health aides. Managers tended to be either aloof or keenly insightful. And those who possess deep insight and apply it to their management and training programs create better work environments that support workers, a crucial moderating factor in stress theory. Middle managers shared creative methods for reducing stressors through workplace level organizational change. One manager added a layer of "preceptor" aides to create a hierarchy of more experienced aides who could act as mentors to newer aides. Another manager developed a highly engaging series of in-service workshops based on feedback provided by the aides themselves. Some agencies paid stronger attention to fairness in scheduling, over favoritism, to good effect.

Wide ranging themes flowed from the semi-structured interviews, but I captured information about the central variable constructs for this study. In summary, agency leaders were nimble in their assessment of the socio-demographics of their home health aides. Overall, agency leaders their home health aide workforce to be comprised of minority women, many with outside caregiving responsibilities (most commonly a child with a disability). Agency leaders were able to summarize that their aides were disadvantaged economically, educationally, and frequently stigmatized by internal staffs, client/patients, and the general public. Agency leaders were forthcoming with stories of racial discrimination and sexual harassment they did not tolerate.

About half of the agency leaders were sympathetic and insightful about aides struggles, but the other half pushed back, believing that the aides were not rushed in their day, could easily accomplish their work, were provided with ample tools for doing their job and that they loved their work very much and that was a source of inspiration for their leader. It was reported by the leaders that aides had autonomy at the client/patient's home, in the driving around between home visits, and in their highly flexible schedules. Managers, they said, provided adequate support in tangible and intangible ways. Multiple efforts had been made, most reported, to create opportunities to show aides appreciation, with dinners, prizes, notices up on bulletin boards.

Most agency leaders believed that aides were underpaid and underappreciated, but a few did not endorse that the aides were experiencing an effort-reward imbalance because they were gratified and satisfied to be helping people and they love their jobs. Finally, it should be noted that some agency leaders endorsed the idea that the home health aides' work was highly regulated, so any agency characteristics or difference in management style were not likely to have effect on the aides' lives. Perhaps most ironically, the agency leaders did not always equate the struggles and hassles aides experience in their working lives with any actions that could be taken. Leaders were resigned that pay structures were forever embedded in reimbursement rates and did not generally envision solutions for increasing pay rates, even though they feared staying competitive with other employers. In general findings related to stress theories were only partly relevant to the issues facing agency leaders and other topics, they believed, were more relevant and created cascade of stressors that exerted a "trickle down" effect to the aides, potentially impacting their health.

*Limitations of the Qualitative Study*

The study took place in Upstate New York agencies. Generalizing findings to other locations may not be possible. Qualitative work with convenience samples is always limited to the place, time and persons in the study. Unique human experiences cannot generalize to other times, places and people. However, that limitation is overcome by the richness of detail that can elucidate human experience in ways that calculations cannot. This sample suffers from selection bias in the form of the health worker effect. Only healthy people can pursue this occupation in the first place, so those with inadequate health are not present in the sample. Also, this sample was highly selective for experienced aides with long tenure in their organizations. Experienced workers gave a long, dedicated view that cross-sectional data could not achieve. Perspectives of aides who quit or only worked for a few years is largely absent, and this fact contributes to the likelihood that stressors and their impact on health are underestimated.

Agency leaders tended to put their best foot forward in interview situations and may be presenting a rosier picture of their agencies than is reflected in the reality. My perception as a researcher may skew the findings in a direction based on my unique biases. I have a personal tendency to admire women who have achieved a certain degree of success and I may not have been as critical in the interviews with the well-educated, well-dressed, and generally charismatic agency leaders as is required by an effective researcher. On the other hand, since 2012, I have been involved in community based projects that directly engage low-wage workers in conversational dialogue groups. Due to the time I have invested in learning about low-wage workers working conditions and socially unjust circumstances, I also tend to see agencies as exploitive, especially when I observe very low wages, unstable scheduling, and lack of

preventive training places the health of the aides at high risk. Interviews were not coded with others to assist in correcting misperceptions that may have arisen.

Most of the CHHAs included in the sample also own LHCSAs and some of the home health aides interviewed were actually employees of the LHCSA, not the CHHA. However, I did not explore stand-alone LHCSAs, which may have offered even more viewpoints, especially since they seemed to be paying home health aides less money and they reportedly have sicker and more problematic clients. Finally, I only spoke to two financial professionals and I did not seek out board members. These might have offered a more well-rounded perspective on the organization as a whole. On the other hand, by speaking with the top most leaders, I gained a perspective on leadership that provided an overview of each department. Also, participant observation granted access to dozens of people and observational moments in kitchens, hallways, cubicles, and even bathrooms. As a social observer, agency operations, personalities, work habits and even opinions were noted. In addition, many of the agency leaders were at a retirement-minded stage in their careers and very willing to share their highs and lows so that for the sake of learning and avoiding problems. Also, they were less likely to worry about how their agency appeared because they were most interested in maintaining quality services to the elderly and disabled continue in their communities.

## CONCLUSION

Demand for home health care workers is urgent as the baby boomers face their final years. So, future projects should center on practical applications to ameliorate work-related stressors. Findings indicate that practices should center on developing better payment schemes

and improved work arrangements. Also, supportive middle management styles and effective training would provide effective buffers to the demands home health aides face. Agencies would benefit from far deeper and more detailed cross pollination with other agencies, especially with regard to sharing the innovative management programming that has been developed and on-going in-service training with deeper engagement. Since stressors at the agency-level, such as those that occur during a merger, indirectly "trickle down" to the home health aides, providers will benefit from paying better attention on any mechanisms implicated in that process. Ultimately, policy work in a changing health care system requires coordination at the federal, state, and agency levels to achieve appropriate compensation, updated training, and healthier work conditions - leading to improvement in the quality of home-based long-term care.

Home care workers and agency leaders were often on the same page with regard to the work itself, owing to a streamlined care plan regulation by New York State. Workers had a few complaints, and most did not stray far from their main sense that they are happy in their work and love their jobs. Agency leaders, on the other hand, were quick to speak of their own stressors especially with regard to recruitment and retention and the difficulties keeping the agency on solid financial footing. Aides were not disgruntled, but more patient-focused and not terribly concerned about their own health. But, aides did raise so many issues that were of importance to them that discerning between major and minor ones is perplexing. Even a minor issue like transportation can become severe enough to eclipse the others. However the most significant stressors that home health aides identified as impacting their health were:

- pay / benefits
- hazardous homes: bedbugs, lifting, air quality, violence
- pressures from family & friends' expectations

- respect as a member of the healthcare team
- death and personal bonds

Agency leaders tended to be “involved visionaries,” who value their national, regional and local connections. They are highly aware of financial and political aspects of the operation at all levels. And they develop innovative programming to improve the operation of their organization. They believe that stressors they face “trickle down” to the aides. Occasionally mechanisms for those connections between work and health are clear. Other times the mechanisms are more elusive and will require more study. Overall, the main stressors affecting home health aides that were identified by the agency leaders were:

- pay rates/benefits
- transportation
- aides trying to “do it all” and having difficulty managing their schedule
- lack of appreciation

This research aimed to understand how the social milieu affects work and health through the mechanism of work-related stress. Quantitative findings emphasized the traditional models along with important socio-demographic and agency level findings. These were echoed in the qualitative work. For example, aides reported pay/benefits as their number one issue, and this connects back to the findings about low income being associated with worse health. One of the more significant quantitative findings (that home health aides who are black report fewer injuries), was reflected in the qualitative work. I suspected that black aides were reporting injuries less often in the national data due to underreporting. In the small convenience sample there was not only a high injury rate but two women of color reported vividly that they refused to

submit a workers' compensation claim after a serious injury at work. Other connections between the quantitative and qualitative findings relate to income levels, training, and supervisor support.

## FUTURE RESEARCH

Future theoretical considerations should continue to incorporate social, political, and individual experience into models. More work on specific occupations will also expand the knowledge base for specific stressors unique to that occupation. Agency-level work and work focused on cumulative trauma would be useful, especially with advanced statistical techniques that can manage nested modeling or temporality.

Future research should focus on the Black American and Latina experiences as home health aides to better understand the details behind racial discrimination on the job and in the community. To improve quality of care and enrich the work of home health aides, new research should explore more about how home health aides build trust between themselves and their patients over time as they reduce tension during the awkward beginnings of personal care. Also, future work should focus on the organizational development of the agency with special attention on work organization and the way the schedulers introduce stressors into the work environment. The use of technology should be studied to determine which approaches to tele-health should be advanced. Broad attention to policy work should leverage findings to argue for higher pay and better benefits, including paid vacations. Immediate studies should compare effectiveness of training modalities, not only to ensure patient safety but to protect workers with high quality health and safety information.

Interaction between injured home health care workers and workers' compensation systems should also be explored, with an emphasis on Black Americans' reporting patterns to

discern if under-reporting is systematic and able to be reversed. Since workers compensation is the only remedy for work-related injury and illness, any home health aide deciding not to report their work-related injury or illness within a specified time frame and deciding not to participate in the system due to fears of losing their job or stigmatization, forgoes benefits that they are entitled to receive including:

1. replacement wages for any time away from work due to the illness or injury
2. medical expenses covered in full with no co-pays for the work-related injury or illness for the duration of the illness or injury
3. the opportunity to receive full compensation in the future should a significant injury or disease develop over a longer period of time
4. coverage in the event that the source for hurt workers' private insurance is lost (i.e., she should lose her job, her employer drops medical coverage, or if coverage obtained through COBRA (Consolidated Omnibus Budget Reconciliation Act of 1985) runs out.

## PRACTICES TO REDUCE HOME HEALTH CARE WORKERS' STRESS

Stress theory along with the finding from this study suggest that the following methods for intervening to reduce stressors in the work environment would reduce work demands, improve worker control over the work, and provide workers with information and materials.

1. Stabilize caseloads relative to staffing levels to avoid short-staffing, especially in summers or holidays.
2. Raise wages and stabilize work arrangements.

3. Provide socially supportive management practices, especially supervisors and middle managers.
4. Generate relevant, engaging training experiences
5. Develop appropriate technology, implemented thoughtfully.
6. Consider changing management approaches during mergers and other organizational challenges.

## POLICY TO "MAKE THE ROAD" BETTER FOR HOME HEALTH CARE WORKERS

When workers highly suited to care work select into the occupation, home health care work can be seen as a bright spot in the more dismal world of low-wage work, since workers find so much fulfillment, engagement and meaning in their work. But, injury can be disastrous, especially for immigrants and people of color. Furthermore, considering the physically and emotionally exhausting nature of the work, their low pay rates are an outrage. More often than not, older poor Black women and Latinas are taking care of the dirty work while at the same time dealing with the sad and angry out workings of the patients' emotional preparations for death. It is a demeaning that that these workers should have to suffer stressors such low pay, social stigma, physical and emotional scarring and disrespect in exchange for their loving, empathetic, and selfless service often carefully delivered to elders who possess absolutely nothing and have no one to care for them at the end of all things.

The Fair Labor Standards Act (FLSA) acknowledges care work is being done in private homes as legitimate work. This work is no longer subject to the "companionship exemption" (Fowler vs. Incor, 2008). In 2013, the U.S. Department of Labor extended FLSA protections--including minimum wage and overtime pay--to home care workers nationwide, effective January

1, 2015. This change is not popular with the agency leaders I spoke with because they have made the decision not to pay the costlier overtime. Instead they have to hire more aides to cover the shifts they need and with recruitment and retention being so difficult, this circumstance has stretch the agencies badly. Some aides are helped by these laws, but many are not. Many were working full weeks of double shifts, but now the agency cannot afford to pay overtime, so they are reduced to 40 hour weeks.

Because the wage rate does not comprise a living wage, these workers' and their families are hit with severely reduced income. On the other hand, those aides who were working 80 hour weeks were exhausted, sleep deprived and at risk for higher injury and illness rates, burning the candle at both ends. So, while the agencies adjust their hiring and scheduling, the overall impact of the law was likely favorable for workers' health, especially as implemented over the course of time.

Several agency leaders recommended the policy work developed by the Finger Lakes Community Health Systems Agency in the Sage Commission. The Final Report (2011) notes serious problems due to the combination of the following: 1) increased number of older people, 2) increasing health disparities for older people, 3) declines in numbers of family caregivers, and 4) workforce shortages in physicians, nurses and home health care workers. Among other relevant policy, the report recommends "increasing the array of home and community based services so older adults can receive care in the least restrictive setting." (page 9) Policy solutions require coordination at the federal, state, and local levels (Klein & Boris, 2013). When asked, "What policy solutions do you see as imperative? Agency leaders requested:

1. Reimbursement rates that support higher wages for home health care workers at all levels
2. Adjust the FLSA to permit double or overnight shifts without overtime pay

3. Develop and test innovative programs, especially around technology or reaching a new and more diverse target population, i.e., refugees, immigrants, LGBT
4. Reduce unnecessary bureaucratic work, such as is exemplified by “face-to-face” requirements for physician to write original prose when ordering standard care to be provided through the certified home health agency.
5. Revise NYS Department of Health “Home Health Aide Scope of Tasks” Training Manual.
6. Establish and financially support the operations of a home health care worker ombudsman/advocate based in New York City (at the state government level) to navigate NYS Department of Labor and Department of Health worker protections (Rhodat & Cook, 2016).
7. Increase collaboration across upstate New York to improve the quality of training and middle management programming, with pragmatic benchmarking of effective programs underway
8. Prevention (i.e., fall prevention, or getting seniors into home services earlier in the aging process)
9. Consistent reimbursement for tele-health services
10. Consistent reimbursement criteria for both Medicare and Medicaid patients.
11. Develop plans to address unmet care needs in their communities.
12. Develop long-term care workforce initiatives

In general, the most important policies to pursue would seek to improve work conditions for home health aides by elevating the status and remuneration rates, reducing, exposure to occupational hazards, and establishing a baseline of respect and human dignity. One goal would be to establish and rigorously enforce standards of civility and professionalism during training.

Another goal would be to apply these standards in the homes, especially in the case of belligerent or violent client/patients.

Most policies advocated by the agency leaders would improve the occupational prestige of home health aides, modernize training and streamline agency-level resources by reductions in bureaucracy. However, not all policies advocated by agency leaders are without controversy. For example, while mandatory overtime created a crisis for the agencies, it may be for the best for the home health aides themselves, especially in the long run. In addition, it should be noted here that not all policies would directly reduce occupational stress for home health aides. Agency leaders envisioned a more comprehensive view with reduced stress levels as an indirect result of good policy implementation, especially around wages and training. It should also be noted that most agency leaders did not appreciate collective action or union activity as a desired policy goal or practice. At the same time, most aides who were recruited into this study were quick to explain their non-support if union activity was mentioned. Worker organizing was not something being considered by the workers themselves.

Ultimately, the research is aimed at validating the importance of the home health care work and reducing their occupational health burdens. The findings suggest micro-level, mesa-level and macro- level policy change offers the best potential for ameliorating low-quality work conditions. The research also demonstrates the unique skills and contributions of those engaged in this work, thereby justifying immediate pay increases be written into any health care policy being promoted. Inherent in these relatively simple goals is the potential to arrest or reverse forces that proliferate and intensify stress over time, foster discrimination, and prevent potential moderators of stress from acting. Also, integral in this research was the idea of the certified home health care agency as an institution with peculiar norms worth examining not only with regard to

the quantity and quality of care delivered for their patient/clients, but in light of the health of the workforce. Keeping the home health aides healthier will support the provision of cost effective, long-term care solutions as baby boomers move through their final years.

# APPENDIX A

## Construction of Selected Measures

*DEPENDENT VARIABLES*

*Health* is defined by self-rated scale (1= Excellent 2= Very Good 3= Good 4= Fair 5= Poor). For this analysis, the variable was collapsed to four categories by combining “fair” and “poor” and the variable is reverse coded.

| In general, how would you say your health is… |
|---|

*Occupational Health* is defined using two measures. One is the number of work days missed because of injuries in the preceding 12 months. The second records the number of times an individual was injured at work during the past 12 months (or since starting their job if it was less than 12 months).

*SELECT INDEPENDENT VARIABLES*

*Work demand* is generated by creating a score from 8 distinct items in the survey instrument with the resulting score ranging from 0 (indicating low demand) to 9 (indicating high demand). This score takes into account problems with patient, problems with the patients’ family or if the home health aide reports being burned out at work or that there was a death of a patient. Each item was dichotomously coded and assigned one point each if the response was positive. Questions

about workload were weighted by a factor of 2. So, if workloads were reported as a problem, they were assigned 2 points. Also, if the aide indicated that there was not enough time to accomplish their tasks (either ADLs or other tasks), these each were assigned a point and this element was also multiplied by 2. The number of visits required to be accomplished in the previous week was coded and entered into the formula directly. The stress of seeing new patients more frequently was assigned one point.

| |
|---|
| Problem patients (such as problems with patient handling (lifts, assists, etc.), problems with patient management, patient cleanup chores, patients with pets, or pet related problems) |
| Patients' families, patient's distress due to lack of family visitation |
| Burnout / death of patient |
| Workload - too little/too much? |
| Total number of visits made in last week worked |
| Are you assigned to care for the same patients on most weeks you work, or do the patients you are assigned to change each week you work? |
| How much time do you have to assist patients with ADLs? |
| How much time do you have to complete duties that don't directly involve the patients? |

*Work control.* Control in the workplace is measured by creating a score using four items from the survey instrument. One point is assigned for being able to work independently and for not having problems with the work schedule that make work difficult. Then two items are reverse coded to indicate that the home health aide is trusted to make patient care decisions and is confident in the ability to do their job.

| |
|---|
| Able to work independently |
| Problems with Scheduling make work difficult. |
| I am trusted to make patient care decisions. |
| I am confident in my ability to do my job. |

*Effort Reward Imbalance* combines four items scored on a likert scale to create a score ranging between 4 and 16, capturing the idea that "this job is just not worth it." Higher scores indicate dissatisfaction with the current overall situation and more specifically are connected to a negative response indicating regretting taking their current job, regretting entering the field in the first place, and how much they avoid recommending that family or friends take a job as a home health aide. Given that aides are making low-wages, monetary reward is assumed lacking.

| |
|---|
| If you had to decide whether to become a home health aide again, would you… |
| If you had to decide whether to take your current job again, would you… |
| If a friend or family member asked your advice about taking a home health aide job at {AGENCY} would you… |
| How satisfied are you with current job? |

*Additional caregiver burdens outside of work c*ombines two dichotomized variables indicating additional caregiver burdens outside of work.

| |
|---|
| Are you caring for family/friend with a disability or health problem? |
| Did you miss time from work in past month to care for family/friend? |

*Training.* A training variable was created taking into account both training location and the type of training methods used. Six categories were developed to represent training conditions experience by home health aides. Training was provided in two locations: either on-site or offsite through another training entity. The types of training included training that was conducted by mostly observing or doing hands-on work with patients, mostly classroom study, or an even split between hands-on and classroom study. Taken together the training variable for the study included six categories combining these items from the survey indicating training location and training type, and including a reference group who reported that they have received no training.

| |
|---|
| Did you receive any classroom or formal training to become a home health aide? |
| Where was the training received? |
| How well did your home health aide training prepare you for what it is actually like to work in a home health setting? |
| Was your home health aide training with patients or hands-on? |

*Workplace support/supervisor support*. This variable combines five items from the survey to create an overall score ranging from 4 - 20. The first variable is dichotomous (1 = enjoys working with supervisor) and the score is weighted by a factor of two. The four remaining

items were scored on a four point likert scale. Points in the score were also higher when the aide endorsed that the supervisor provided clear instructions, was supportive of career progress, provided positive feedback, and listened when worried about a patient's care.

| |
|---|
| I enjoy working with my supervisor |
| My supervisor provides clear instructions when assigning work. |
| My supervisor is supportive of progress in my career, such as further training. |
| My supervisor listens to me when I am worried about a patient's care. |
| My supervisor tells me when I am doing a good job. |
| Supervisor &/or agency management are supportive at agency closure |

*Workplace support /agency-level.* This variable combines five survey items to create a score. Indications of appreciation and respect are weighted by a factor of two. The score includes one point for each of three types of problems aides endorsed as making their job difficult or making them dislike their job. These problems were communicating with the agency in general, communicating with specific agency staff, and the preferential treatment by the agency management related to staffing issues or documenting paperwork.

| |
|---|
| How much do you think the organization at {AGENCY} values or appreciates the work you do as a home health aide? |
| I am respected by my agency for my work |
| Patient communication problems with agency |
| Agency management, staffing issues (preferential treatment)/ paperwork (documentation) |
| Communication problems between you and agency staff |

*Good Pay* combines two variables to create a score. The second is reversed coded.

| |
|---|
| Salary or wages |
| Pay is a problem that makes your job difficult. |

*Health Insurance Benefits* combines two variables to create a score weighting the availability of health benefits for the home health aide by a factor of 2.

| |
|---|
| Is health insurance available to you at {AGENCY}? |
| Does {AGENCY} offer health insurance coverage for other family members? |

*Good Benefits* combines information from 18 variables to create a score. The final three variables are weighted by a factor of 3 because they comprise the workers' overall assessment of the benefits.

| |
|---|
| Paid sick leave |
| Paid holidays off |
| Other paid time off, vacation/ personal days |
| Extra pay for working holidays |
| Retirement or pension plan |
| Paid child care, subsidies, or assistance |
| Dental vision or drug benefits |
| Disability and/or life insurance |

| |
|---|
| Bonuses |
| Tuition reimbursement or subsidy |
| Cell phone for work |
| Any other benefits |
| Phone assistance/ reimbursement |
| Additional medical insurance/ wellness activities |
| Legal assistance, other supplies, car-related (e.g. AAA membership), computer, uniforms |
| Benefits offered to home health aide at sampled agency, including education / incentives for staff and family leave policy |
| Lack of benefits makes it difficult to do my job. (reverse coded) |
| I continue to work because of the benefits. |
| I am overall satisfied with the benefits |

# APPENDIX B

## INTERVIEW GUIDE

## AGENCY LEADER AND KEY STAFFER

Oral Survey

1. When was the business established?
2. How long have you been executive director?
3. How many people work here?
4. Are they certified?
5. What training do they go through when they arrive?
6. Are there opportunities for development?
7. How is their pay scale set?
8. Is the work load difficult for the home care workers?
9. How do you keep politics/ incivility at a minimum?
10. How long do clients remain clients?

Narrative

1. Can you tell me a little about the history of this organization?
2. How did you come to be the executive director of this agency?
3. What has your experience in this role been like for you?
4. Current struggles? Past struggles?
5. Current victories? Past Victories?

Key Issues

1. How is this agency organized?
2. Describe the business cycles you observe?
3. How is work assigned? Who are your most reliable staff?
4. Who are the home care workers? Why do they come?
5. What makes a good home health care worker?
6. Are they paid well? Benefits seem to be adequate?
7. Are they allowed to decide things about the work they do? The way they do it?
8. What types of support do you think are most effective?
9. Is balancing home and work life difficult for the home health workers? In what way?
10. What is the relationship of this org to government agencies? To regulatory agencies? To taxation agencies? To insurance companies? To vendors? To advisory board?
11. What do you think I should be asking?
12. In your view, what would be the main sources of work-related stress for the home health care workers?
    a. What is their work demand like?
    b. What level of autonomy are they allowed?
    c. How are they compensated? Is there a pay/benefits structure that supports their efforts?
    d. The rewarding nature of the work itself is often reported by the home care workers? In your estimation, do most ascribe to that? Or is it just a job for some? Is there a role for the agency to play in their professional development? What helps or hinders that process?

e. What is your sense of the long-term impact of this work on the home health care workers overall health?

13. What realistic changes do you envision to improve outcomes for the agency, the clients, and the workers?

Suggest 2nd Key Informant

Suggest home health care workers

# APPENDIX C

## INTERVIEW GUIDE- CONSTRUCTS

## HOME HEALTHCARE WORKER

Oral Survey

1. Name
2. Date of birth
3. Place of birth
4. Gender
5. Marital Status
6. Ethnicity
7. Agency
8. Tenure
9. Hours
10. Rate of pay
11. Benefits
12. Training, general
13. Training, occupational health and safety
14. Occupational injury/disease?
15. Workers Compensation
16. Discrimination at work
17. Demand
    a. Probe demand

18. Latitude
    a. Probe latitude
19. Workplace support
20. Relationship with boss/supervisor
21. Relationship w/ co-workers
22. Precarity

Narrative: The Home Health Care Worker's Story

1. Job history
2. Life history
    a. Education
    b. Fathers and Mothers occupation
    c. Current family structure / social life
3. Summary to assess meaningfulness
4. Vulnerability/Precarity
5. Effort Reward Imbalance
    a. Wages
    b. Hours
    c. Benefits
    d. Work-life balance
6. Job history revisited

Semi Structured Interview: Work Conditions

1. Precarious Work
    a. Temporariness
    b. Vulnerability
2. Current Work Conditions
    a. Stress
    b. Occupational Health Concerns
3. Economics
    a. Wages
    b. Precarity
    c. Socio-economic attainment
    d. Ontological security
4. Health
    a. Current problems
    b. Past problems
    c. Sleep
    d. Mental health
        i. Depression/anxiety
        ii. Substance abuse
5. Quality of Work Life
    a. Demand
    b. Control

    c. Workplace Support
    d. Effort vs. Reward
    e. Other stressors?
6. Work-Life Balance
    a. Work-Family Interference
    b. Family- Work Interference
    c. Empowerment
7. Empowerment
    a. Rights
    b. Exercising rights
8. The future
    a. If there was one thing you could change about your job, what would that be?
    b. How would you go about making that change real?

# APPENDIX D

## INTERVIEW GUIDE- SCRIPTED QUESTIONS

## HOME HEALTHCARE WORKER

Oral Survey

1. Name
2. Date of birth
3. Place of birth
4. Gender
5. Marital Status
6. Ethnicity
7. Agency
8. How long have you worked at this agency? When did you start?
9. What hours do you usually work?
10. If you don't mind me asking, how much do you get paid? Did you start at that rate? Are there raises?
11. What benefits do you take advantage of? Can you get health insurance? Paid vacation?
12. What types of training do you take part in for this job?
13. Do you receive health and safety training?
14. Have you ever been hurt or made sick from work?
15. Have you ever filed a claim with NYS Workers Compensation?
16. Have you ever experienced discrimination at work?
17. Is the work too demanding?

   a. If yes, in what way?

18. Does your supervisor allow you to make decisions about your work?
   a. If yes, what kinds of decisions.
19. Are you given everything you need to do your job well?
20. What is your relationship with your supervisor like?
21. What is your relationship with your co-workers like?
22. Do you believe this job will last six months? One year? Two years?

Narrative: The Home Health Care Worker's Story

For this part of the interview, I'd like you to share with me how you came to work at this job. We'll talk about your job history and how it intertwined with your life history such as your family history, your upbringing and your education. As you tell me about your life story, we'll bring it into the present and talk about your life as it's going now. (Seek assent)

1. How did you come to do this job? What jobs have you held before? (obtain details of job history with probing questions)

2. So did you grow up around here?
   a. Go to school here?
   b. What did your father do for a living? Your mother? Others in your family? (continue with probing questions to elicit a brief timeline of their life to the present)

   c. So you are married/single now and living nearby? Your social life and family life is _____. Do I have that right? Did I understand you about that?

3. <<Summarize interview to this point>> So, if I have followed what you are telling me, you were born in ___ and have worked at _____ and you are ____ and you are engaged in _____ pursuits. Do you think I have captured things well? OK.

   Then can you say more about what this work is really like for you? <<probe for main issues>> What do you like about this work? What do you dislike? Many home health care workers report that they find deep meaning in their work, but others find that it's just more of a job to them. What do you think about that? How do you feel about that?

4. Is this job providing what you need to sustain yourself and your dependents? Is the work steady?

5. Are you treated fairly?
   a. Do you think your pay rate is fair?
   b. Do you get the hours you expect?
   c. Is the benefits package satisfactory?

6. Let's talk about how work connects to your time when you are not working.
   a. Does your work interfere with your non-work or family life?
   b. Does your non-work or family life interfere with your work?

7. <<Review job history>> Is there something you think is important that we haven't covered about your job history?

Semi Structured Interview: Work Conditions

1. Precarious Work / Vulnerability
    a. How long have you been working at this job? Is it a temporary job? Does it seem like it is a temporary job?
    b. Are you ever afraid you'll be fired if you speak up about work conditions here?
2. Current Work Conditions
    a. How does this work contribute to you stress levels?
    b. From your perspective, what are the main work-related health and safety concerns of this job?
3. Economics
    a. I have already asked you about your pay rate. I am wondering how you are able to make it on these wages. Is it a living wage? Does it cover your basic needs?
    b. Are the hours consistent? How is the schedule determined?
    c. How does this job provide for your future economic security?
4. Health
    a. How is your health now? Are you having any current health problems?
    b. Have you had health problems in the past?

c. Are these problems directly related to your work? Indirectly? How?

d. Are you able to get enough sleep? Do you sleep well?

e. How's your mental health?

i. Do you experience depression or anxiety? Is it related to this job?

1. Do you find yourself gravitating to alcohol or other substances to cope with stressors at work?

5. Quality of Work Life

a. Are the demands of this job very high? <<probe, can you say more about…. >>

b. Are you able to make decision about how the work is being carried out when you are in the client's homes?

c. Does the agency provide you with everything you need to do this job?

d. All things considered, do you feel the rewards of this job are worth the effort you put in?

e. Are there other kinds of stresses that we haven't talked about yet?

6. Work-Life Balance Revisit/Probe

You have already shared with me some things about how your work affects your family life and/or how your family life affects your work. Can you share more about that….<<mention specifics from earlier question if appropriate>>

a. Work-Family Interference

b. Family- Work Interference

7. Empowerment
    a. Do you have an idea that you know what your rights are in the workplace? How did you come to learn about them?
    b. Do you believe you can truly exercise these rights?
    c. Do you believe you can speak up about problems you encounter in client's homes?

8. The Future
    a. If there was one thing you could change about your job, what would that be?
    b. How would you go about making that change happen?

APPENDIX E

Supplementary Analysis

Multinomial Logistic Regression

Tables 4.11 – 4.36, Models 1 - 5

| **TABLE 4.11 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH** | | | |
|---|---|---|---|
| Dependent Variable: Self-rated health | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | |
| *Referent group = Excellent* | | | |
| | [1] | | |
| | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | |
| Work demands | 0.0393 | 0.0003 | 0.0834 |
| | [0.0386] | [0.01419] | [0.0575] |
| Low work control | 0.0468** | 0.0614*** | 0.0575* |
| | [0.0175] | [0.0186] | [0.0272] |
| Effort-Reward Imbalance | 0.0322 | 0.0376 | 0.2040*** |
| | [0.0247] | [0.0263] | [0.0330] |
| Racial discrimination on the job | 0.1339 | 0.2763 | 0.2255 |
| | [0.1512] | [0.1577] | [0.2261] |
| Additional caregiver burdens outside of work | 0.1737 | 0.2501** | 0.3107* |
| | [0.0891] | [0.0935] | [0.1336] |
| Work-Related Stress Buffers –Agency-Level | | | |
| Hands-on training/ agency based | | | |
| | | | |
| Hands-on training/ offsite training entity | | | |
| | | | |
| Classroom training/ agency based | | | |
| | | | |
| Classroom training/ offsite training entity | | | |
| | | | |
| Mixed training methods / agency based | | | |
| | | | |
| Mixed training methods / offsite training entity | | | |

| | | | |
|---|---|---|---|
| Supportive supervisor (respect, communication, praise, listens) | | | |
| | | | |
| Supportive agency (respect, communication) | | | |
| | | | |
| Work Arrangements | | | |
| 6 months but less than one year | | | |
| | | | |
| 1 year but less than 2 years | | | |
| | | | |
| 2 to 5 years | | | |
| | | | |
| 6 to 10 years | | | |
| | | | |
| 11 to 20 | | | |
| | | | |
| More than 20 years | | | |
| | | | |
| Tenure in months at current agency | | | |
| | | | |
| Good pay? | | | |
| | | | |
| Health insurance coverage through work? | | | |
| | | | |
| Good benefits? | | | |
| | | | |
| Agency Characteristics | | | |
| Agency Type Hospice | | | |
| | | | |
| Agency Type Home Health and Hospice Mixed | | | |
| | | | |
| Metropolitan Statistical Area Metropolitan | | | |
| | | | |
| Metropolitan Statistical Area Micropolitan | | | |
| | | | |
| Ownership | | | |
| | | | |

| | | | |
|---|---|---|---|
| Chain-affiliation | | | |
| | | | |
| Socio-demographic Control Variables | | | |
| Gender | | | |
| | | | |
| Age | | | |
| | | | |
| Hispanic | | | |
| | | | |
| Black | | | |
| | | | |
| Other (non-white, non-black) | | | |
| | | | |
| Education Level: Less than High School | | | |
| | | | |
| Education Level: More than High School | | | |
| | | | |
| Annual Household Income : up to $20,000 | | | |
| | | | |
| Annual Household Income: between $20,000 and $39,999 | | | |
| | | | |
| Marital Status: Married | | | |
| | | | |
| Living with partner | | | |
| | | | |
| Separated | | | |
| | | | |
| Divorced | | | |
| | | | |
| Widowed | | | |
| | | | |
| Government Program for Medical (Medicaid)? | | | |
| | | | |
| Regression Details (n=3235) | | | |
| Intercept | -2.9130*** | -0.5385*** | -0.1423 |
| | [0.2159] | [0.1502] | [0.1402] |
| Likelihood Ratio | 2095.11(df=2E3) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.12 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH** | | | |
|---|---|---|---|
| Dependent Variable: Self-rated health | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | |
| *Referent group = Excellent* | | | |
| | [2] | | |
| | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | |
| Work demands | 0.0422 | 0.00674 | 0.0894 |
| | [0.039] | [0.0424] | [0.0579] |
| Low work control | 0.0480** | 0.0681*** | 0.0682* |
| | [0.0177] | [0.0189] | [0.0277] |
| Effort-Reward Imbalance | 0.0401 | 0.0422 | 0.2080*** |
| | [0.0251] | [0.0267] | [0.0338] |
| Racial discrimination on the job | 0.2259 | 0.2842* | 0.1631 |
| | [0.1607] | [0.2842] | [0.2428] |
| Additional caregiver burdens outside of work | 0.1497 | 0.2258* | 0.2745* |
| | [0.0898] | [0.0945] | [0.1352] |
| Work-Related Stress Buffers –Agency-Level | | | |
| Hands-on training/ agency based | | | |
| | | | |
| Hands-on training/ offsite training entity | | | |
| | | | |
| Classroom training/ agency based | | | |
| | | | |
| Classroom training/ offsite training entity | | | |
| | | | |
| Mixed training methods / agency based | | | |
| | | | |
| Mixed training methods / offsite training entity | | | |
| | | | |
| Supportive supervisor (respect, communication, praise, listens) | | | |
| | | | |
| Supportive agency (respect, communication) | | | |
| | | | |
| Work Arrangements | | | |
| 6 months but less than one year | | | |

| | | | |
|---|---|---|---|
| 1 year but less than 2 years | | | |
| | | | |
| 2 to 5 years | | | |
| | | | |
| 6 to 10 years | | | |
| | | | |
| 11 to 20 | | | |
| | | | |
| More than 20 years | | | |
| | | | |
| Tenure in months at current agency | | | |
| | | | |
| Good pay? | | | |
| | | | |
| Health insurance coverage through work? | | | |
| | | | |
| Good benefits? | | | |
| | | | |
| <u>Agency Characteristics</u> | | | |
| Agency Type Hospice | | | |
| | | | |
| Agency Type Home Health and Hospice Mixed | | | |
| | | | |
| Metropolitan Statistical Area Metropolitan | | | |
| | | | |
| Metropolitan Statistical Area Micropolitan | | | |
| | | | |
| Ownership | | | |
| | | | |
| Chain-affiliation | | | |
| | | | |
| <u>Socio-demographic Control Variables</u> | | | |
| Gender | -0.3584** | -0.1861 | -0.4898 |
| | [0.1285] | [0.1297] | [0.2701] |
| Age | 0.0102* | 0.0156*** | 0.0230** |
| | [0.0042] | [0.00454] | [0.0071] |

| | | | |
|---|---|---|---|
| Hispanic | 0.2455** | 0.1579 | 0.0700 |
| | [0.0912] | [0.0971] | [0.1439] |
| Black | -0.1314 | 0.1211 | 0.2033 |
| | [0.1232] | 0.1287 | [0.1939] |
| Other (non-white, non-black) | -0.1917 | -0.315 | 0.1803 |
| | [0.177] | [0.1978] | [0.2759] |
| Education Level: Less than High School | 0.1035 | 0.3797* | 0.1055 |
| | [0.1487] | [0.1529] | [0.2339] |
| Education Level: More than High School | -0.0947 | -0.0904 | -0.2869* |
| | [0.0965] | [0.1052] | [0.1647] |
| Annual Household Income : up to $20,000 | 0.3836* | 0.5431*** | 0.8826** |
| | [0.1498] | [0.1593] | [0.2388] |
| Annual Household Income: between $20,000 and $39,999 | 0.2206* | 0.2407* | 0.3913* |
| | [0.1079] | [0.1176] | [0.1888] |
| Marital Status: Married | 0.4487** | 0.4706** | 0.6271* |
| | [0.1561] | [0.1692] | [0.2739] |
| Living with partner | 0.3036 | 0.2849 | 0.7600* |
| | [0.2158] | [0.2369] | [0.356] |
| Separated | 0.7178* | 0.7746* | 0.7013 |
| | [0.2907] | [0.3026] | [0.464] |
| Divorced | 0.2688 | 0.2148 | 0.4084 |
| | [0.1757] | [0.19] | [0.2986] |
| Widowed | 0.052 | 0.149 | 0.0859 |
| | [0.2524] | [0.2643] | [0.4179] |
| Government Program for Medical (Medicaid)? | 0.0667 | -0.0561 | -0.0183 |
| | [0.0745] | [0.0765] | [0.117] |
| Regression Details (n=3235) | | | |
| Intercept | -1.6045*** | -1.9692*** | -4.474*** |
| | [0.4495] | [0.477] | [0.7417] |
| Likelihood Ratio | 7843.07 (df=9E3) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.13 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH** | | | |
|---|---|---|---|
| Dependent Variable: Self-rated health | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | |
| *Referent group = Excellent* | | | |
| | [3] | | |
| | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | |
| Work demands | 0.0439 | 0.00961 | 0.0823 |
| | [0.0391] | [0.0425] | [0.0583] |
| Low work control | 0.051** | 0.0648*** | 0.0554* |
| | [0.018] | [0.0192] | [0.0283] |
| Effort-Reward Imbalance | 0.0469 | 0.0192 | 0.1517*** |
| | [0.028] | [0.03] | [0.0389] |
| Racial discrimination on the job | 0.2418 | 0.2885 | 0.1487 |
| | [0.1611] | [0.1689] | [0.244] |
| Additional caregiver burdens outside of work | 0.149 | 0.2237** | 0.2704* |
| | [0.09] | [0.0948] | [0.1358] |
| Work-Related Stress Buffers –Agency-Level | | | |
| Hands-on training/ agency based | -0.4273* | -0.285 | -0.1081 |
| | [0.216] | [0.2305] | [0.3606] |
| Hands-on training/ offsite training entity | -0.2028 | -0.1074 | -0.1725 |
| | [0.1997] | [0.212] | [0.3392] |
| Classroom training/ agency based | -0.0888 | -0.2125 | -0.2218 |
| | [0.2589] | [0.2846] | [0.4238] |
| Classroom training/ offsite training entity | -0.0519 | -0.0363 | -0.5497 |
| | [0.1795] | [0.1926] | [0.3256] |
| Mixed training methods / agency based | -0.1036 | -0.138 | -0.0489 |
| | [0.1651] | [0.1794] | [0.2788] |
| Mixed training methods / offsite training entity | -0.1304 | -0.158 | 0.0157 |
| | [0.1355] | [0.1466] | [0.2263] |
| Supportive supervisor (respect, communication, praise, listens) | -0.0612** | -0.0441 | 0.0304 |
| | [0.0218] | [0.023] | [0.03] |
| Supportive agency (respect, communication) | -0.0484 | -0.1251*** | -0.1557** |
| | [0.035] | [0.0359] | [0.0476] |
| Work Arrangements | | | |
| 6 months but less than one year | | | |

| | | | |
|---|---|---|---|
| 1 year but less than 2 years | | | |
| | | | |
| 2 to 5 years | | | |
| | | | |
| 6 to 10 years | | | |
| | | | |
| 11 to 20 | | | |
| | | | |
| More than 20 years | | | |
| | | | |
| Tenure in months at current agency | | | |
| | | | |
| Good pay? | | | |
| | | | |
| Health insurance coverage through work? | | | |
| | | | |
| Good benefits? | | | |
| | | | |
| Agency Characteristics | | | |
| Agency Type Hospice | | | |
| | | | |
| Agency Type Home Health and Hospice Mixed | | | |
| | | | |
| Metropolitan Statistical Area Metropolitan | | | |
| | | | |
| Metropolitan Statistical Area Micropolitan | | | |
| | | | |
| Ownership | | | |
| | | | |
| Chain-affiliation | | | |
| | | | |
| Socio-demographic Control Variables | | | |
| Gender | -0.3666** | -0.1815 | -0.4467 |
| | [0.1288] | [0.1302] | 0.2704 |
| Age | 0.0105* | 0.0163*** | 0.0249*** |
| | [0.00425] | [0.0046] | [0.00719] |

| | | | |
|---|---|---|---|
| Hispanic | 0.2425** | 0.1642 | 0.0987 |
| | [0.0917] | [0.0978] | [0.1446] |
| Black | -0.1301 | 0.1405 | 0.1935 |
| | [0.1244] | [0.1302] | [0.1967] |
| Other (non-white, non-black) | -0.1724 | -0.2849 | 0.2109 |
| | [0.1782] | [0.199] | [0.2767] |
| Education Level: Less than High School | 0.1113 | 0.3828* | 0.0893 |
| | [0.149] | [0.1534] | [0.2354] |
| Education Level: More than High School | -0.0983 | -0.0992 | -0.2848 |
| | [0.0968] | [0.1056] | [0.1657] |
| Annual Household Income : up to $20,000 | 0.3815* | 0.553*** | 0.8856*** |
| | [0.1504] | [0.16] | [0.24] |
| Annual Household Income: between $20,000 and $39,999 | 0.2194* | 0.2394* | 0.3976* |
| | [0.1082] | [0.118] | [0.1899] |
| Marital Status: Married | 0.4543** | 0.4707** | 0.5912* |
| | [0.1566] | [0.1699] | [0.2753] |
| Living with partner | 0.3191 | 0.2868 | 0.7225* |
| | [0.2164] | [0.2378] | [0.3575] |
| Separated | 0.7474** | 0.7835*** | 0.6217 |
| | [0.2915] | [0.3036] | [0.4672] |
| Divorced | 0.2845 | 0.2298 | 0.4185 |
| | [0.1763] | [0.1907] | [0.2998] |
| Widowed | 0.0676 | 0.1616 | 0.0389 |
| | [0.2533] | [0.2654] | [0.4203] |
| Government Program for Medical (Medicaid)? | 0.0703 | -0.0551 | -0.0289 |
| | [0.0746] | [0.0768] | [0.1175] |
| Regression Details (n=3235) | | | |
| Intercept | -0.2251 | 0.9004 | -1.4424 |
| | [0.8661] | [0.8976] | [1.2466] |
| Likelihood Ratio | 966.42 (df=1E4) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.14 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH** | | | |
|---|---|---|---|
| Dependent Variable: Self-rated health | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | |
| *Referent group = Excellent* | | | |
| | [4] | | |
| | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | |
| Work demands | 0.0397 | 0.00825 | 0.0704 |
| | [0.0394] | [0.0427] | [0.0588] |
| Low work control | 0.0475** | 0.0634*** | 0.0521 |
| | [0.0181] | [0.0193] | [0.0284] |
| Effort-Reward Imbalance | 0.0443 | 0.0175 | 0.1436** |
| | [0.0288] | [0.0308] | [0.0402] |
| Racial discrimination on the job | 0.2176 | 0.2775 | 0.0915 |
| | [0.1621] | [0.17] | [0.2476] |
| Additional caregiver burdens outside of work | 0.1413 | 0.2136* | 0.2390 |
| | [0.0904] | [0.0952] | [0.1373] |
| Work-Related Stress Buffers –Agency-Level | | | |
| Hands-on training/ agency based | -0.4529* | -0.2874 | -0.1293 |
| | [0.2171] | [0.2313] | [0.363] |
| Hands-on training/ offsite training entity | -0.223 | -0.1302 | -0.2524 |
| | [0.2011] | [0.2133] | [0.3413] |
| Classroom training/ agency based | -0.0622 | -0.1982 | -0.154 |
| | [0.2602] | [0.2855] | [0.4269] |
| Classroom training/ offsite training entity | -0.0723 | -0.0486 | -0.6042 |
| | [0.1807] | [0.1936] | [0.3276] |
| Mixed training methods / agency based | -0.1131 | -0.1469 | -0.0845 |
| | [0.1661] | [0.1802] | [0.2803] |
| Mixed training methods / offsite training entity | -0.1604 | -0.1869 | -0.0547 |
| | [0.1367] | [0.1477] | [0.2279] |
| Supportive supervisor (respect, communication, praise, listens) | -0.0633** | -0.0465* | 0.0281 |
| | [0.0219] | [0.0231] | [0.03] |
| Supportive agency (respect, communication) | -0.0422 | -0.1214*** | -0.1532** |
| | [0.0352] | [0.0361] | [0.048] |
| Work Arrangements | | | |
| 6 months but less than one year | -0.1822 | -0.1686 | -0.0617 |

| | | | |
|---|---|---|---|
| | [0.435] | [0.4444] | [0.8868] |
| 1 year but less than 2 years | 0.4627 | 0.1313 | 0.4946 |
| | [0.3626] | [0.3805] | [0.7461] |
| 2 to 5 years | 0.5573 | 0.1598 | 0.4603 |
| | [0.3116] | [0.3217] | [0.6527] |
| 6 to 10 years | 0.5799 | 0.2949 | 1.0271 |
| | [0.3166] | [0.3262] | [0.6487] |
| 11 to 20 | -0.5620 | 0.3962 | 1.0771 |
| | [0.3176] | [0.3263] | [0.6496] |
| More than 20 years | 0.7568* | 0.5086 | 1.4577* |
| | [0.3383] | [0.3491] | [0.6725] |
| Tenure in months at current agency | -0.0002 | -0.00124 | -0.0010 |
| | [0.0008] | [0.0008] | [0.0012] |
| Good pay? | -0.2377* | -0.1889 | -0.3179 |
| | [0.1077] | [0.1168] | [0.2027] |
| Health insurance coverage through work? | 0.0733 | 0.0526 | 0.0135 |
| | [0.0466] | [0.0494] | [0.074] |
| Good benefits? | -0.0005 | -0.0061 | 0.0345 |
| | [0.015] | [0.0162] | [0.0247] |
| Agency Characteristics | | | |
| Agency Type Hospice | | | |
| | | | |
| Agency Type Home Health and Hospice Mixed | | | |
| | | | |
| Metropolitan Statistical Area Metropolitan | | | |
| | | | |
| Metropolitan Statistical Area Micropolitan | | | |
| | | | |
| Ownership | | | |
| | | | |
| Chain-affiliation | | | |
| | | | |
| Socio-demographic Control Variables | | | |
| Gender | 0.3568** | -0.1794 | -0.4171 |
| | [0.1293] | [0.1305] | [0.2721] |
| Age | 0.00736 | 0.0141** | 0.0153 |
| | [0.00482] | [0.0052] | [0.00825] |

| | | | |
|---|---|---|---|
| Hispanic | 0.2299* | 0.1523 | 0.0777 |
| | [0.0923] | [0.0984] | [0.1468] |
| Black | -0.1517 | 0.0992 | 0.1261 |
| | [0.1261] | [0.1318] | [0.2003] |
| Other (non-white, non-black) | -0.1583 | -0.28 | 0.2222 |
| | [0.1788] | [0.1994] | [0.2797] |
| Education Level: Less than High School | 0.1267 | 0.3888* | 0.1018 |
| | [0.1498] | [0.1541] | [0.2364] |
| Education Level: More than High School | -0.0672 | -0.0815 | -0.263 |
| | [0.0978] | [0.1065] | [0.1673] |
| Annual Household Income : up to $20,000 | 0.4262** | 0.5799*** | 0.9824*** |
| | [0.1525] | [0.1619] | [0.2443] |
| Annual Household Income: between $20,000 and $39,999 | 0.2316* | 0.241* | 0.4251* |
| | [0.1089] | [0.1185] | [0.1918] |
| Marital Status: Married | 0.4401** | 0.4470** | 0.5585* |
| | [0.158] | [0.1709] | [0.2777] |
| Living with partner | 0.2933 | 0.2518 | 0.6604 |
| | [0.2178] | [0.2388] | [0.3596] |
| Separated | 0.7345* | 0.7295* | 0.5439 |
| | [0.2943] | [0.306] | [0.4716] |
| Divorced | 0.244 | 0.1849 | 0.3553 |
| | [0.1779] | [0.192] | [0.3016] |
| Widowed | 0.0593 | 0.1489 | -0.00699 |
| | [0.2547] | [0.2663] | [0.421] |
| Government Program for Medical (Medicaid)? | 0.0573 | -0.0678 | -0.0532 |
| | [0.0752] | [0.0772] | [0.1186] |
| Regression Details (n=3235) | | | |
| Intercept | -0.3673 | 1.1045 | -1.4271 |
| | [0.9235] | [0.9601] | [1.3593] |
| Likelihood Ratio | 7951.17 (df = 1E4) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.15 MULTINOMIAL LOGISTIC REGRESSION PREDICTORS OF SELF-RATED HEALTH** | | | |
|---|---|---|---|
| Dependent Variable: Self-rated health | | | |
| (In general, how would you say your health is… ? Excellent, Very Good, Good, or Fair/Poor | | | |
| *Referent group = Excellent* | | | |
| | [5] | | |
| | Very Good | Good | Fair or Poor |
| Work-Related Stressors – Worker Level | | | |
| Work demands | 0.0371 | 0.00445 | 0.0653 |
| | [0.0396] | [0.043] | [0.0593] |
| Low work control | 0.0486** | 0.0644*** | 0.0515 |
| | [0.0181] | [0.0194] | [0.0285] |
| Effort-Reward Imbalance | 0.0437 | 0.0215 | 0.1524*** |
| | [0.029] | [0.031] | [0.0405] |
| Racial discrimination on the job | 0.2215 | 0.2924 | 0.0873 |
| | [0.1628] | [0.1709] | [0.249] |
| Additional caregiver burdens outside of work | 0.1395 | 0.2165* | 0.2523 |
| | [0.0907] | [0.0954] | [0.1375] |
| Work-Related Stress Buffers –Agency-Level | | | |
| Hands-on training/ agency based | -0.4477* | -0.2898 | -0.1400 |
| | [0.2174] | [0.2319] | [0.3633] |
| Hands-on training/ offsite training entity | -0.2347 | -0.1397 | -0.2696 |
| | [0.2014] | [0.2138] | [0.3424] |
| Classroom training/ agency based | -0.053 | -0.1762 | -0.1565 |
| | [0.2613] | [0.2868] | [0.4298] |
| Classroom training/ offsite training entity | -0.0739 | -0.0604 | -0.6426 |
| | [0.181] | [0.194] | [0.3285] |
| Mixed training methods / agency based | -0.1034 | -0.1344 | -0.0922 |
| | [0.1665] | [0.1807] | [0.2815] |
| Mixed training methods / offsite training entity | -0.1562 | -0.1885 | -0.0787 |
| | [0.1371] | [0.1482] | [0.2291] |
| Supportive supervisor (respect, communication, praise, listens) | -0.0615** | -0.0441 | 0.0295 |
| | [0.0219] | [0.0232] | [0.03] |
| Supportive agency (respect, communication) | -0.0452 | -0.1269*** | -0.1616*** |
| | [0.0353] | [0.0363] | [0.048] |
| Work Arrangements | | | |

| | | | |
|---|---|---|---|
| 6 months but less than one year | -0.2082 | -0.2046 | -0.0546 |
| | [0.4364] | [0.4464] | [0.8904] |
| 1 year but less than 2 years | 0.4508 | 0.115 | 0.5192 |
| | [0.3637] | [0.3821] | [0.7485] |
| 2 to 5 years | 0.5628 | 0.149 | 0.4529 |
| | [0.3129] | [0.3234] | [0.6553] |
| 6 to 10 years | 0.5843 | 0.2818 | 1.016 |
| | [0.3179] | [0.3278] | [0.651] |
| 11 to 20 | 0.5699 | 0.3904 | 1.0634 |
| | [0.3189] | [0.328] | [0.652] |
| More than 20 years | 0.7732* | 0.5125 | 1.4413* |
| | [0.3399] | [0.3511] | [0.6755] |
| Tenure in months at current agency | -0.00014 | -0.00101 | -0.00063 |
| | [0.0008] | [0.000863] | [0.00129] |
| Good pay? | -0.2377** | -0.1897 | -0.3195 |
| | [0.108] | [0.1172] | [0.2035] |
| Health insurance coverage through work? | 0.0799 | 0.0495 | -0.00215 |
| | [0.0482] | [0.0511] | [0.0768] |
| Good benefits? | 0.00159 | -0.00328 | 0.0356 |
| | [0.0151] | [0.0163] | [0.025] |
| Agency Characteristics | | | |
| Agency Type Hospice | -0.0638 | 0.0947 | 0.2119 |
| | [0.124] | [0.1328] | [0.2082] |
| Agency Type Home Health and Hospice Mixed | -0.2295 | -0.2119 | -0.1095 |
| | [0.1208] | [0.1315] | [0.2053] |
| Metropolitan Statistical Area Metropolitan | -0.0432 | -0.1725 | -0.0831 |
| | [0.1232] | [0.1326] | [0.2016] |
| Metropolitan Statistical Area Micropolitan | 0.1081 | 0.0118 | -0.1729 |
| | [0.1184] | [0.1269] | [0.2014] |
| Ownership | -0.0291 | -0.0455 | -0.131 |
| | [0.121] | [0.1302] | [0.204] |
| Chain-affiliation | -0.0421 | -0.1467 | -0.3351 |
| | [0.1198] | [0.1305] | [0.2076] |
| Socio-demographic Control Variables | | | |
| Gender | -0.3568** | -0.1697 | -0.4064 |
| | [0.1298] | [0.1313] | [0.273] |
| Age | 0.00731 | 0.0141** | 0.0155 |

| | | | |
|---|---|---|---|
| | [0.00483] | [0.00521] | [0.00829] |
| Hispanic | 0.2268* | 0.1393 | 0.0716 |
| | [0.0927] | [0.099] | [0.1486] |
| Black | -0.1458 | 0.1221 | 0.1625 |
| | [0.1308] | [0.1374] | [0.2092] |
| Other (non-white, non-black) | -0.1569 | -0.2711 | 0.2398 |
| | [0.1795] | [0.2006] | [0.2822] |
| Education Level: Less than High School | 0.1151 | 0.3748* | 0.1001 |
| | [0.1501] | [0.1547] | [0.2374] |
| Education Level: More than High School | -0.0558 | -0.0622 | -0.2577 |
| | [0.0982] | [0.107] | [0.1681] |
| Annual Household Income : up to $20,000 | 0.4062** | 0.5575*** | 1.0266*** |
| | [0.155] | [0.1648] | [0.2497] |
| Annual Household Income: between $20,000 and $39,999 | 0.2239* | 0.2324 | 0.4342* |
| | [0.1093] | [0.1191] | [0.1931] |
| Marital Status: Married | 0.4332** | 0.4266* | 0.5749* |
| | [0.1591] | [0.1723] | [0.2806] |
| Living with partner | 0.2974 | 0.2574 | 0.6721 |
| | [0.2181] | [0.2392] | [0.361] |
| Separated | 0.7389* | 0.7412* | 0.5779 |
| | [0.2949] | [0.3071] | [0.4736] |
| Divorced | 0.2367 | 0.1754 | 0.3564 |
| | [0.178] | [0.1924] | [0.3028] |
| Widowed | 0.0465 | 0.1333 | 0.000983 |
| | [0.255] | [0.2671] | [0.4236] |
| Government Program for Medical (Medicaid)? | 0.0612 | -0.0658 | -0.0646 |
| | [0.0755] | [0.0776] | [0.1194] |
| Regression Details (n=3235) | | | |
| Intercept | -0.6455 | 1.058 | -1.8668 |
| | [0.9583] | [0.9953] | [1.4481] |
| Likelihood Ratio | 7929.31 (df=1E4) | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.21 REGRESSION RESULTS, HOME HEALTH CARE WORKERS STRESS AND OCCUPATIONAL HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Days away from work | | |
| *(referent group = no missing days)* | | |
| | [1] | |
| | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0846 | 0.1628** |
| | [0.0605] | [0.0613] |
| Low work control | 0.0345 | 0.0193 |
| | [0.0289] | [0.0321] |
| Effort-Reward Imbalance | 0.0850* | 0.1138** |
| | [0.0368] | [0.0384] |
| Racial discrimination on the job | 0.3895 | -0.0474 |
| | [0.2213] | [0.2734] |
| Additional caregiver burdens outside of work | 0.1567 | 0.3071* |
| | [0.1412] | [0.1440] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | | |
| | | |
| Hands-on training/ offsite training entity | | |
| | | |
| Classroom training/ agency based | | |
| | | |
| Classroom training/ offsite training entity | | |
| | | |
| Mixed training methods / agency based | | |
| | | |
| Mixed training methods / offsite training entity | | |
| | | |
| Supportive supervisor (respect, communication, praise, listens) | | |
| | | |
| Supportive agency (respect, communication) | | |
| | | |
| Work Arrangements | | |
| 6 months but less than one year | | |
| | | |
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |
| | | |

| | | |
|---|---|---|
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type  Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | | |
| | | |
| Age | | |
| | | |
| Hispanic | | |
| | | |
| Black | | |
| | | |
| Other (non-white, non-black) | | |
| | | |
| Education Level: Less than High School | | |
| | | |
| Education Level: More than High School | | |

| | | |
|---|---|---|
| Annual Household Income : up to $20,000 | | |
| | | |
| Annual Household Income: between $20,000 and $39,999 | | |
| | | |
| Marital Status: Married | | |
| | | |
| Living with partner | | |
| | | |
| Separated | | |
| | | |
| Divorced | | |
| | | |
| Widowed | | |
| | | |
| Government Program for Medical (Medicaid)? | | |
| | | |
| Regression Details (n= 3235) | | |
| Intercept | -4.0321*** | -3.6544*** |
| | [0.2535] | [0.2340] |
| Likelihood Ratio | | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.22 REGRESSION RESULTS, HOME HEALTH CARE WORKERS STRESS AND OCCUPATIONAL HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Days away from work | | |
| *(referent group = no missing days)* | | |
| | [2] | |
| | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0822 | 0.1674** |
| | [0.0614] | [0.0622] |
| Low work control | 0.0272 | 0.0177 |
| | [0.0289] | [0.0325] |
| Effort-Reward Imbalance | 0.0974** | 0.1194** |
| | [0.0374] | [0.0392] |
| Racial discrimination on the job | 0.5770* | 0.0426 |
| | [0.2402] | [0.2943] |
| Additional caregiver burdens outside of work | 0.1579 | 0.2920* |
| | [0.1411] | [0.1563] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | | |
| | | |
| Hands-on training/ offsite training entity | | |
| | | |
| Classroom training/ agency based | | |
| | | |
| Classroom training/ offsite training entity | | |
| | | |
| Mixed training methods / agency based | | |
| | | |
| Mixed training methods / offsite training entity | | |
| | | |
| Supportive supervisor (respect, communication, praise, listens) | | |
| | | |
| Supportive agency (respect, communication) | | |
| | | |
| Work Arrangements | | |
| 6 months but less than one year | | |
| | | |
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |
| | | |

| | | |
|---|---|---|
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.4774 | 0.0116 |
| | [0.3608] | [0.2633] |
| Age | -0.011 | 0.00264 |
| | [0.0075] | [0.0085] |
| Hispanic | -0.0361 | 0.1864 |
| | [0.1573] | [0.1910] |
| Black | -0.6108* | -0.3481 |
| | [0.2421] | [0.2602] |
| Other (non-white, non-black) | 0.00225 | 0.6618* |
| | [0.3092] | [0.2918] |
| Education Level: Less than High School | 0.0745 | -0.2821 |
| | [0.2516] | [0.2937] |
| Education Level: More than High School | 0.0417 | -0.2109 |

| | | |
|---|---|---|
| | [0.1743] | [0.1940] |
| Annual Household Income : up to $20,000 | -0.1911 | 0.4560 |
| | [0.2712] | [0.2822] |
| Annual Household Income: between $20,000 and $39,999 | -0.0406 | 0.2553 |
| | [0.1939] | [0.2184] |
| Marital Status: Married | -0.0253 | 0.9099* |
| | [0.2793] | [0.4222] |
| Living with partner | -0.1759 | 1.2427* |
| | [0.3933] | [0.4838] |
| Separated | 0.1890 | 1.0738 |
| | [0.4625] | [0.5773] |
| Divorced | -0.0712 | 0.8534 |
| | [0.3215] | [0.4506] |
| Widowed | -0.4500 | 0.7660 |
| | [0.5374] | [0.5752] |
| Government Program for Medical (Medicaid)? | -0.0629 | 0.3641 |
| | [0.1272] | [0.1877] |
| Regression Details (n= 3235) | | |
| Intercept | -2.2331** | -6.7258*** |
| | [0.8186] | [1.0021] |
| Likelihood Ratio | 2316.00 (df = 6E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.23 REGRESSION RESULTS, HOME HEALTH CARE WORKERS STRESS AND OCCUPATIONAL HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Days away from work | | |
| *(referent group = no missing days)* | | |
| | [3] | |
| | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0841 | 0.1676** |
| | [0.0615] | [0.0627] |
| Low work control | 0.0223 | 0.0125 |
| | [0.0296] | [0.0330] |
| Effort-Reward Imbalance | 0.0659 | 0.0984* |
| | [0.0429] | [0.0459] |
| Racial discrimination on the job | 0.5560** | 0.0468 |
| | [0.2416] | [0.2957] |
| Additional caregiver burdens outside of work | 0.1641 | 0.2865 |
| | [0.1410] | [0.1474] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | -0.4151 | 0.7291 |
| | [0.4329] | [0.3984] |
| Hands-on training/ offsite training entity | 0.4706 | -0.2436 |
| | [0.2997] | [0.4919] |
| Classroom training/ agency based | -0.4389 | 0.3626 |
| | [0.5022] | [0.4746] |
| Classroom training/ offsite training entity | -0.3849 | 0.4402 |
| | [0.3311] | [0.3513] |
| Mixed training methods / agency based | -0.5692* | 0.2047 |
| | [0.3278] | [0.3527] |
| Mixed training methods / offsite training entity | -0.0289 | 0.2621 |
| | [0.2294] | [0.2940] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0218 | 0.0339 |
| | [0.0337] | [0.0367] |
| Supportive agency (respect, communication) | -0.0779 | -0.0114 |
| | [0.0496] | [0.0582] |
| Work Arrangements | | |
| 6 months but less than one year | | |
| | | |
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |

| | | |
|---|---|---|
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.4605 | 0.0203 |
| | [0.3615] | [0.2642] |
| Age | -0.0104 | 0.00212 |
| | [0.0076] | [0.0085] |
| Hispanic | -0.0139 | 0.1952 |
| | [0.1568] | [0.1923] |
| Black | -0.6268* | -0.3267 |
| | [0.2443] | [0.2639] |
| Other (non-white, non-black) | 0.0439 | 0.6603* |
| | [0.3075] | [0.2945] |
| Education Level: Less than High School | 0.0517 | -0.2867 |
| | [0.2528] | [0.2946] |

| | | |
|---|---|---|
| Education Level: More than High School | -0.0628 | -0.2083 |
| | [0.1764] | [0.1946] |
| Annual Household Income : up to $20,000 | -0.1651 | 0.4564 |
| | [0.2717] | [0.2842] |
| Annual Household Income: between $20,000 and $39,999 | -0.0467 | 0.2535 |
| | [0.1951] | [0.2191] |
| Marital Status: Married | -0.0473 | 0.9022 * |
| | [0.2809] | [-0.0473] |
| Living with partner | -0.1922 | 1.2179* |
| | [0.3947] | [0.4855] |
| Separated | 0.1081 | 1.0746* |
| | [0.4653] | [0.5793] |
| Divorced | -0.0918 | 0.8374 |
| | [0.3232] | [0.4508] |
| Widowed | -0.4729 | 0.7454 |
| | [0.5386] | [0.5765] |
| Government Program for Medical (Medicaid)? | -0.0704 | 0.3608 |
| | [0.1278] | [0.1881] |
| Regression Details (n= 3235) | | |
| Intercept | -0.6656 | -6.8429*** |
| | [1.3353] | [1.5918] |
| Likelihood Ratio | 2331.17 (df = E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.24 REGRESSION RESULTS, HOME HEALTH CARE WORKERS STRESS AND OCCUPATIONAL HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Days away from work | | |
| *(referent group = no missing days)* | | |
| | [4] | |
| | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0732 | 0.1618 * |
| | [0.0619] | [0.0642] |
| Low work control | 0.0147 | 0.0110 |
| | [0.0299] | [0.0334] |
| Effort-Reward Imbalance | 0.0720* | 0.1230* |
| | [0.0442] | [0.0482] |
| Racial discrimination on the job | 0.4614 | -0.800 |
| | [0.2458] | [0.3057] |
| Additional caregiver burdens outside of work | 0.1279 | 0.2692 |
| | [0.1430] | [0.1501] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | -0.4295 | 0.6951 |
| | [0.4358] | [0.4015] |
| Hands-on training/ offsite training entity | 0.4167 | -0.2704 |
| | [0.2023] | [0.4947] |
| Classroom training/ agency based | -0.4185 | 0.4959 |
| | 0.5066 | 0.4781 |
| Classroom training/ offsite training entity | -0.4803 | 0.4261 |
| | [0.3334] | [0.3549] |
| Mixed training methods / agency based | -0.5971 | 0.1876 |
| | [0.3297] | [0.3551] |
| Mixed training methods / offsite training entity | -0.0807 | 0.2316 |
| | [0.2312] | [0.2969] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0271 | 0.0347 |
| | [0.0337] | [0.0373] |
| Supportive agency (respect, communication) | -0.0742 | -0.0229 |
| | [0.0507] | [0.0602] |
| Work Arrangements | | |
| 6 months but less than one year | 1.3145 | 0.7606 |
| | [1.1796] | [1.2599] |
| 1 year but less than 2 years | 1.2275 | 1.3401 |
| | [1.1126] | [1.1013] |
| 2 to 5 years | 1.4945 | 1.1501 |
| | [1.0306] | [1.0384] |

| | | |
|---|---|---|
| 6 to 10 years | 1.6544 | 1.1679 |
| | [1.0327] | [1,0393] |
| 11 to 20 | 1.7711 | 0.8036 |
| | [1.0341] | [1.0444] |
| More than 20 years | -0.9567 | -0.8153 |
| | [0.5267] | [0.5281] |
| Tenure in months at current agency | -0.0025 | 0.0017 |
| | [0.00143] | [0.00141] |
| Good pay? | -0.2336 | 0.2008 |
| | [0.2235] | [0.2260] |
| Health insurance coverage through work? | 0.2518* | 0.2920* |
| | [0.1038] | [0.1205] |
| Good benefits? | 0.0700** | 0.0241 |
| | [0.0262] | [0.0300] |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type  Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.4181 | 0.0681 |
| | [0.3627] | [0.2691] |
| Age | -0.0109 | -0.0068 |
| | [0.00893] | [0.001] |
| Hispanic | -0.0676 | 0.1470 |
| | [0.1592] | [0.1979] |
| Black | -0.6640** | -0.2678 |
| | [0.2495] | [0.2699] |
| Other (non-white, non-black) | 0.0407 | 0.7127* |
| | [0.3105] | [0.3012] |
| Education Level: Less than High School | 0.0802 | -0.30151 |
| | [0.2545] | [0.2967] |
| Education Level: More than High School | -0.0621 | -0.1597 |

| | | |
|---|---|---|
| | [0.1782] | [0.1981] |
| Annual Household Income : up to $20,000 | -0.0485 | 0.5919* |
| | [0.2767] | [0.2906] |
| Annual Household Income: between $20,000 and $39,999 | -0.0130 | 0.2689 |
| | [0.1976] | [0.2219] |
| Marital Status: Married | -0.1461 | 0.9059* |
| | [0.2842] | [0.4258] |
| Living with partner | -0.2664 | 1.2340* |
| | [0.3973] | [0.4891] |
| Separated | -0.0335 | 1.1163 |
| | [0.4698] | [0.5849] |
| Divorced | -0.2165 | 0.7875 |
| | [0.3251] | [0.4530] |
| Widowed | -0.5275 | 0.6379 |
| | [0.5392] | [0.5829] |
| Government Program for Medical (Medicaid)? | -0.0829 | 0.3178 |
| | [0.1295] | [0.1894] |
| Regression Details (n= 3235) | | |
| Intercept | -2.6753 | -7.7975*** |
| | [1.5308] | [1.7987] |
| Likelihood Ratio | 2281.10 (df = 6E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.25 REGRESSION RESULTS, HOME HEALTH CARE WORKERS STRESS AND OCCUPATIONAL HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Days away from work | | |
| *(referent group = no missing days)* | | |
| | [5] | |
| | 1-5 | 6 or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0694 | 0.1526* |
| | [0.0625] | [0.0648] |
| Low work control | 0.0121 | 0.00871 |
| | [ 0.0303] | [0.0336] |
| Effort-Reward Imbalance | 0.0810 | 0.1322** |
| | [0.0446] | [0.0485] |
| Racial discrimination on the job | 0.4356 | -0.1161 |
| | [0.2476] | [0.3065] |
| Additional caregiver burdens outside of work | 0.1336 | 0.2899 |
| | [0.1434] | [0.1504] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | -0.4208 | 0.6767 |
| | [0.4368] | [0.4032] |
| Hands-on training/ offsite training entity | 0.4354 | -0.2633 |
| | [0.3038] | [0.4962] |
| Classroom training/ agency based | -0.3717 | 0.4509 |
| | [0.5095] | [0.4812] |
| Classroom training/ offsite training entity | -0.5109 | 0.3889 |
| | [0.3353] | [0.3577] |
| Mixed training methods / agency based | -0.6024 | 0.1457 |
| | 0.3302 | 0.3569 |
| Mixed training methods / offsite training entity | -0.0974 | 0.2082 |
| | [0.2324] | [0.2983] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0235 | 0.0302 |
| | [0.0336] | [0.0373] |
| Supportive agency (respect, communication) | -0.0782 | -0.0313 |
| | [0.0508] | [0.0601] |
| Work Arrangements | | |
| 6 months but less than one year | 1.3942 | 0.7740 |
| | [1.1812] | [1.2656] |
| 1 year but less than 2 years | 1.2523 | 1.3593 |
| | [1.1133] | [1.1033] |
| 2 to 5 years | 1.4313 | 1.1012 |
| | [1.0318] | [1.0391] |

| | | |
|---|---|---|
| 6 to 10 years | 1.5615 | 1.1133 |
| | [1.0340] | [1.0398] |
| 11 to 20 | 1.6576 | 0.7236 |
| | [1.0356] | [1.0456] |
| More than 20 years | 1.7831 | 1.5072 |
| | 1.0556 | 1.0580 |
| Tenure in months at current agency | -0.00144 | 0.00232 |
| | [0.00151] | [0.00151] |
| Good pay? | -0.2550 | 0.1718 |
| | [0.2240] | [0.2272] |
| Health insurance coverage through work? | 0.2183* | 0.2521* |
| | [0.1064] | [0.1232] |
| Good benefits? | 0.0675** | 0.0196 |
| | [0.0265] | [0.0304] |
| Agency Characteristics | | |
| Agency Type Hospice | 0.5242* | 0.2735 |
| | [0.2344] | [0.2592] |
| Agency Type Home Health and Hospice Mixed | 0.1815 | 0.0982 |
| | [0.2380] | [0.2487] |
| Metropolitan Statistical Area Metropolitan | 0.2739 | 0.4419 |
| | [0.2256] | [0.2475] |
| Metropolitan Statistical Area Micropolitan | -0.0488 | 0.00609 |
| | [0.2272] | [0.2501] |
| Ownership | 0.0223 | -0.2489 |
| | [0.2269] | [0.2654] |
| Chain-affiliation | -0.3289 | -0.4214 |
| | [0.2384] | [0.2746] |
| Socio-demographic Control Variables | | |
| Gender | -0.4411 | 0.0450 |
| | [0.3634] | [0.2699] |
| Age | -0.0108 | -0.0070 |
| | [0.0090] | [ 0.0101] |
| Hispanic | -0.0484 | 0.1646 |
| | [0.1619] | [0.2005] |
| Black | -0.7530** | -0.2942 |
| | [0.2575] | [0.2778] |
| Other (non-white, non-black) | -0.0027 | 0.7047* |
| | [0.3132] | [0.3041] |
| Education Level: Less than High School | 0.0654 | -0.2787 |
| | [0.2558] | [ 0.2981] |
| Education Level: More than High School | -0.0851 | -0.1936 |

| | | |
|---|---|---|
| | [0.1791] | [0.1992] |
| Annual Household Income : up to $20,000 | 0.0750 | 0.7649** |
| | [0.2815] | [0.2966] |
| Annual Household Income: between $20,000 and $39,999 | 0.0240 | 0.3126 |
| | [0.1995] | [0.2239] |
| Marital Status: Married | -0.0711 | 0.9813* |
| | [0.2889] | [0.4286] |
| Living with partner | -0.2512 | 1.2559** |
| | [0.3997] | [0.4903] |
| Separated | 0.0121 | 1.1549* |
| | [0.4717] | [0.5870] |
| Divorced | -0.1999 | 0.7771 |
| | [0.3269] | [0.4547] |
| Widowed | -0.4828 | 0.6714 |
| | [0.5427] | [0.5880] |
| Government Program for Medical (Medicaid)? | -0.4828 | 0.2891 |
| | [0.5427] | [0.1903] |
| Regression Details (n= 3235) | | |
| Intercept | -3.7963* | -8.4347*** |
| | [1.7516] | [1.9765] |
| Likelihood Ratio | 2257.62 (df = E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.31 REGRESSION RESULTS, HOME HEALTH CARE WORKERS' STRESS AND HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Number of Injuries | | |
| Referent group = None | | |
| | [1] | |
| | One | Two or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0951* | 0.1271* |
| | [0.0397] | [0.0634] |
| Low work control | 0.0312 | 0.0419 |
| | [0.0186] | [0.0315] |
| Effort-Reward Imbalance | 0.0919*** | 0.1562*** |
| | [0.0244] | [0.0375] |
| Racial discrimination on the job | 0.1416 | 0.5942** |
| | [0.1564] | [0.2295] |
| Additional caregiver burdens outside of work | 0.0815 | 0.1997 |
| | [0.0937] | [0.1520] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | | |
| | | |
| Hands-on training/ offsite training entity | | |
| | | |
| Classroom training/ agency based | | |
| | | |
| Classroom training/ offsite training entity | | |
| | | |
| Mixed training methods / agency based | | |
| | | |
| Mixed training methods / offsite training entity | | |
| | | |
| Supportive supervisor (respect, communication, praise, listens) | | |
| | | |
| Supportive agency (respect, communication) | | |
| | | |
| Work Arrangements | | |
| 6 months but less than one year | | |

| | | |
|---|---|---|
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |
| | | |
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | | |
| | | |
| Age | | |
| | | |
| Hispanic | | |

| | | |
|---|---|---|
| Black | | |
| | | |
| Other (non-white, non-black) | | |
| | | |
| Education Level: Less than High School | | |
| | | |
| Education Level: More than High School | | |
| | | |
| Annual Household Income : up to $20,000 | | |
| | | |
| Annual Household Income: between $20,000 and $39,999 | | |
| | | |
| Marital Status: Married | | |
| | | |
| Living with partner | | |
| | | |
| Separated | | |
| | | |
| Divorced | | |
| | | |
| Widowed | | |
| | | |
| Government Program for Medical (Medicaid)? | | |
| | | |
| Regression Details (n=3235) | | |
| Intercept | -4.3093*** | -2.4948*** |
| | [0.2559] | [0.1514] |
| Likelihood Ratio | | |

Notes: Standard Errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1

| **TABLE 4.32 REGRESSION RESULTS, HOME HEALTH CARE WORKERS' STRESS AND HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Number of Injuries | | |
| Referent group = None | | |
| | [2] | |
| | One | Two or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0982* | 0.1255 |
| | [0.0404] | [0.0647] |
| Low work control | 0.0227 | 0.0301 |
| | [0.0188] | [0.0317] |
| Effort-Reward Imbalance | 0.1067*** | 0.1708*** |
| | [0.0249] | [0.0385] |
| Racial discrimination on the job | 0.4036* | 0.8992*** |
| | [0.1700] | [0.2551] |
| Additional caregiver burdens outside of work | 0.0747 | 0.1987 |
| | [0.0944] | [0.1535] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | | |
| | | |
| Hands-on training/ offsite training entity | | |
| | | |
| Classroom training/ agency based | | |
| | | |
| Classroom training/ offsite training entity | | |
| | | |
| Mixed training methods / agency based | | |
| | | |
| Mixed training methods / offsite training entity | | |
| | | |
| Supportive supervisor (respect, communication, praise, listens) | | |
| | | |
| Supportive agency (respect, communication) | | |
| | | |
| Work Arrangements | | |
| 6 months but less than one year | | |

| | | |
|---|---|---|
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |
| | | |
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.1701 | -0.7227 |
| | [0.1643] | [0.5066] |
| Age | -0.00256 | -0.00942 |
| | [0.0048] | [0.0084] |
| Hispanic | 0.0345 | 0.7572* |

| | | |
|---|---|---|
| | [0.1039] | [0.3057] |
| Black | -0.7284*** | -0.7395** |
| | [0.1594] | [0.2620] |
| Other (non-white, non-black) | 0.0439 | 0.2481 |
| | [0.1975] | [0.3381] |
| Education Level: Less than High School | -0.0256 | -0.3307 |
| | [0.1657] | [0.315] |
| Education Level: More than High School | 0.0544 | -0.0252 |
| | [0.1108] | [0.1915] |
| Annual Household Income : up to $20,000 | -0.1703 | 0.2024 |
| | [0.1728] | [0.2994] |
| Annual Household Income: between $20,000 and $39,999 | -0.0461 | 0.3493 |
| | [0.1219] | [0.2201] |
| Marital Status: Married | 0.2213 | 0.1718 |
| | [0.1962] | [0.3073] |
| Living with partner | 0.4298 | -0.3536 |
| | [0.2476] | [0.4744] |
| Separated | 0.2119 | 0.2869 |
| | [0.3316] | [0.5053] |
| Divorced | 0.1105 | -0.1599 |
| | [0.2209] | [0.3617] |
| Widowed | -0.1267 | -0.267 |
| | [0.3256] | [0.5564] |
| Government Program for Medical (Medicaid)? | 0.0997 | 0.0465 |
| | [0.0903] | [0.15] |
| Regression Details (n=3235) | | |
| Intercept | -2.6791*** | -5.6465*** |
| | [0.5237] | [1.2315] |
| Likelihood Ratio | 3528.61 (df= 6E3) | |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.33 REGRESSION RESULTS, HOME HEALTH CARE WORKERS' STRESS AND HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Number of Injuries | | |
| Referent group = None | | |
| | [3] | |
| | One | Two or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0984** | 0.1283** |
| | [0.0406] | [0.0651] |
| Low work control | 0.0201 | 0.0242 |
| | [0.0192] | [0.0325] |
| Effort-Reward Imbalance | 0.0986*** | 0.1374** |
| | [0.0284] | [0.0447] |
| Racial discrimination on the job | 0.3804* | 0.9031*** |
| | [0.1704] | [0.2581] |
| Additional caregiver burdens outside of work | 0.0748 | 0.1989 |
| | [0.0946] | [0.1542] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | 0.3854 | -0.6974 |
| | [0.2451] | [0.4981] |
| Hands-on training/ offsite training entity | 0.4780* | -0.2882 |
| | [0.2239] | [0.3851] |
| Classroom training/ agency based | 0.236 | -0.7279 |
| | [0.2885] | [0.555] |
| Classroom training/ offsite training entity | 0.1434 | 0.1051 |
| | [0.2124] | [0.2961] |
| Mixed training methods / agency based | 0.2404 | -0.3976 |
| | [0.197] | [0.3195] |
| Mixed training methods / offsite training entity | 0.2658 | -0.4862 |
| | [0.1638] | [0.2497] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0376 | 0.0164 |
| | [0.0223] | [0.0373] |
| Supportive agency (respect, communication) | 0.0133 | -0.0543 |
| | [0.0355] | [0.0559] |
| Work Arrangements | | |
| 6 months but less than one year | | |
| | | |

| | | |
|---|---|---|
| 1 year but less than 2 years | | |
| | | |
| 2 to 5 years | | |
| | | |
| 6 to 10 years | | |
| | | |
| 11 to 20 | | |
| | | |
| More than 20 years | | |
| | | |
| Tenure in months at current agency | | |
| | | |
| Good pay? | | |
| | | |
| Health insurance coverage through work? | | |
| | | |
| Good benefits? | | |
| | | |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.1661 | -0.7448 |
| | [0.1648] | [0.5086] |
| Age | -0.0032 | -0.00915 |
| | [0.0049] | [0.0085] |
| Hispanic | 0.0405 | 0.7694* |
| | [0.1041] | [0.3077] |

| | | |
|---|---|---|
| Black | -0.7332*** | -0.7012*** |
| | [0.1605] | [0.2659] |
| Other (non-white, non-black) | 0.0236 | 0.299 |
| | [0.1976] | [0.3423] |
| Education Level: Less than High School | -0.0349 | -0.3273 |
| | [0.1663] | [0.3163] |
| Education Level: More than High School | 0.0644 | -0.0698 |
| | [0.1111] | [0.193] |
| Annual Household Income : up to $20,000 | -0.174 | 0.2559 |
| | [0.1734] | [0.3002] |
| Annual Household Income: between $20,000 and $39,999 | -0.0519 | 0.3632* |
| | [0.1223] | [0.2207] |
| Marital Status: Married | 0.2143 | 0.1753 |
| | [0.1972] | [0.3072] |
| Living with partner | 0.4162* | -0.3496 |
| | [0.2484] | [0.4752] |
| Separated | 0.1866 | 0.2816 |
| | [0.3327] | [0.5089] |
| Divorced | 0.0978 | -0.1769 |
| | [0.2216] | [0.3621] |
| Widowed | -0.1199 | -0.2864 |
| | [0.3266] | [0.5573] |
| Government Program for Medical (Medicaid)? | 0.098 | 0.0494 |
| | [0.0905] | [0.1508] |
| Regression Details (n=3235) | | |
| Intercept | -3.3367*** | -4.2591* |
| | [0.9199] | [1.6961] |
| Likelihood Ratio | 3576.5 | (df =6E3) |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.34 REGRESSION RESULTS, HOME HEALTH CARE WORKERS' STRESS AND HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Number of Injuries | | |
| Referent group = None | | |
| | [4] | |
| | One | Two or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0901* | 0.1210 |
| | [0.0411] | [0.0656] |
| Low work control | 0.0132 | 0.0131 |
| | [0.0194] | [0.033] |
| Effort-Reward Imbalance | 0.1095*** | 0.1484** |
| | [0.0296] | [0.0463] |
| Racial discrimination on the job | 0.3014* | 0.8072** |
| | [0.1739] | [0.2637] |
| Additional caregiver burdens outside of work | 0.1554 | 0.1794 |
| | [0.0958] | [0.0598] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | 0.3531 | -0.7362 |
| | [0.248] | [0.5022] |
| Hands-on training/ offsite training entity | 0.4541* | -0.3387 |
| | [0.2266] | [0.3887] |
| Classroom training/ agency based | 0.3098 | -0.7237 |
| | [0.2922] | [0.5605] |
| Classroom training/ offsite training entity | 0.0805 | -0.0133 |
| | [0.2148] | [0.3] |
| Mixed training methods / agency based | 0.2096 | -0.4457 |
| | [0.1991] | [0.3228] |
| Mixed training methods / offsite training entity | 0.2308 | -0.5429* |
| | [0.1655] | [0.2522] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0403* | 0.0247 |
| | [0.0226] | [0.0373] |
| Supportive agency (respect, communication) | 0.0151 | -0.0516 |
| | [0.0364] | [0.0577] |
| Work Arrangements | | |
| 6 months but less than one year | 1.5774* | 1.2209 |

| | | |
|---|---|---|
| | [0.6957] | [1.191] |
| 1 year but less than 2 years | 1.5275** | 0.3132 |
| | [0.6448] | [1.2455] |
| 2 to 5 years | 1.3443* | 1.5744 |
| | [0.6083] | [1.0357] |
| 6 to 10 years | 1.6631** | 1.5227 |
| | [1.0406] | [0.6081] |
| 11 to 20 | 1.3796* | 1.3852 |
| | [0.6107] | [1.0452] |
| More than 20 years | 1.7480* | 1.3567 |
| | [0.6221] | [1.0728] |
| Tenure in months at current agency | 0.00012 | -0.00074 |
| | [0.00086] | [0.0016] |
| Good pay? | -0.0991 | -0.2734 |
| | [0.1334] | [0.2583] |
| Health insurance coverage through work? | 0.2732*** | 0.4513*** |
| | [0.0654] | [0.1378] |
| Good benefits? | 0.0452** | 0.0464 |
| | | [0.0297] |
| Agency Characteristics | | |
| Agency Type Hospice | | |
| | | |
| Agency Type Home Health and Hospice Mixed | | |
| | | |
| Metropolitan Statistical Area Metropolitan | | |
| | | |
| Metropolitan Statistical Area Micropolitan | | |
| | | |
| Ownership | | |
| | | |
| Chain-affiliation | | |
| | | |
| Socio-demographic Control Variables | | |
| Gender | -0.1209 | -0.681 |
| | [0.1672] | [0.511] |
| Age | -0.0063 | -0.00713 |
| | [0.0057] | [0.00981] |
| Hispanic | -0.01712*** | 0.7371* |

| | | |
|---|---|---|
| | [0.1064] | [0.3094] |
| Black | -0.7172*** | -0.7235** |
| | [0.1639] | [0.2719] |
| Other (non-white, non-black) | 0.0335 | 0.3257 |
| | [0.2009] | [0.3451] |
| Education Level: Less than High School | 0.3183 | -0.2787 |
| | [0.1679] | [-0.0163] |
| Education Level: More than High School | 0.0903 | -0.0441 |
| | [0.1131] | [0.1957] |
| Annual Household Income : up to $20,000 | -0.0548 | 0.4071 |
| | [0.1774] | [0.3065] |
| Annual Household Income: between $20,000 and $39,999 | -0.0305 | 0.4017 |
| | [0.1243] | [0.2234] |
| Marital Status: Married | 0.1461 | 0.0646 |
| | [0.1999] | [0.3107] |
| Living with partner | 0.3546 | -0.3783 |
| | [0.2515] | [0.4776] |
| Separated | 0.0954 | 0.1631 |
| | [0.3369] | [0.5163] |
| Divorced | -0.0138 | -0.3168 |
| | [0.2238] | [0.3662] |
| Widowed | 0.5596 | -0.3257 |
| | [0.3291] | [-0.2117] |
| Government Program for Medical (Medicaid)? | 0.0689 | 0.0396 |
| | [0.0918] | [0.1523] |
| Regression Details (n=3235) | | |
| Intercept | -5.8749*** | -7.5024*** |
| | [1.1467] | [2.0665] |
| Likelihood Ratio | 3505.97 | (df = 6E3) |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

| **TABLE 4.35 REGRESSION RESULTS, HOME HEALTH CARE WORKERS' STRESS AND HEALTH** | | |
|---|---|---|
| Dependent Variable: Occupational Health | | |
| Number of Injuries | | |
| Referent group = None | | |
| | [5] | |
| | One | Two or more |
| Work-Related Stressors – Worker Level | | |
| Work demands | 0.0898* | 0.1075 |
| | [0.0416] | [0.0664] |
| Low work control | 0.0129 | 0.0131 |
| | [0.0195] | [0.0333] |
| Effort-Reward Imbalance | 0.1197*** | 0.1676*** |
| | [0.03] | [0.0471] |
| Racial discrimination on the job | 0.3209 | 0.8136** |
| | [0.1754] | [0.2684] |
| Additional caregiver burdens outside of work | 0.0669 | 0.1955 |
| | [0.0962] | [0.1563] |
| Work-Related Stress Buffers –Agency-Level | | |
| Hands-on training/ agency based | 0.334 | -0.742 |
| | [0.2485] | [0.5021] |
| Hands-on training/ offsite training entity | 0.4640* | -0.3199 |
| | [0.2274] | [0.3904] |
| Classroom training/ agency based | 0.3286 | -0.7506 |
| | [0.2941] | [0.5652] |
| Classroom training/ offsite training entity | 0.0611 | -0.0619 |
| | [0.2156] | [0.3034] |
| Mixed training methods / agency based | 0.2086 | -0.4845 |
| | [0.1997] | [0.3241] |
| Mixed training methods / offsite training entity | 0.2187 | -0.5813* |
| | [0.1662] | [0.2535] |
| Supportive supervisor (respect, communication, praise, listens) | 0.0382 | 0.0214 |
| | [0.0226] | [0.0373] |
| Supportive agency (respect, communication) | 0.0122 | -0.0591 |
| | [0.0365] | [0.0578] |
| Work Arrangements | | |
| 6 months but less than one year | 1.5983* | 1.2876 |

| | | |
|---|---|---|
| | [0.6959] | [1.1949] |
| 1 year but less than 2 years | 1.5223* | 0.3027 |
| | [0.6452] | [1.2477] |
| 2 to 5 years | 1.2953* | 1.4904 |
| | [0.6086] | [1.0376] |
| 6 to 10 years | 1.615* | 1.4206 |
| | [0.6083] | [1.0425] |
| 11 to 20 | 1.3317* | 1.2847 |
| | [0.6111] | [1.0476] |
| More than 20 years | 1.6895** | 1.2168 |
| | [0.6227] | [1.0755] |
| Tenure in months at current agency | 0.000537 | -0.00019 |
| | [0.0009] | [0.0017] |
| Good pay? | -0.1047 | -0.2965 |
| | [0.1339] | [0.2595] |
| Health insurance coverage through work? | 0.2519*** | 0.3893** |
| | [0.0667] | [0.1389] |
| Good benefits? | 0.0445** | 0.0441 |
| | [0.0173] | [0.0301] |
| Agency Characteristics | | |
| Agency Type Hospice | 0.4266** | 0.6802* |
| | [0.1491] | [0.2762] |
| Agency Type Home Health and Hospice Mixed | 0.3058* | 0.5328* |
| | [0.1449] | [0.2727] |
| Metropolitan Statistical Area Metropolitan | -0.1057 | 0.1032 |
| | [0.1405] | [0.2482] |
| Metropolitan Statistical Area Micropolitan | -0.1725 | -0.1257 |
| | [0.1351] | [0.2462] |
| Ownership | 0.0495 | -0.261 |
| | [0.1449] | [0.2671] |
| Chain-affiliation | -0.2299 | -0.2855 |
| | [0.1475] | [0.2674] |
| Socio-demographic Control Variables | | |
| Gender | -0.1158 | -0.6881 |
| | [0.1683] | [0.5117] |
| Age | -0.0062 | -0.0065 |
| | [0.0057] | [0.0099] |
| Hispanic | -0.0275 | 0.7410* |

| | | |
|---|---|---|
| | [0.1077] | [0.3118] |
| Black | -0.7093*** | -0.7128** |
| | [0.1697] | [0.2827] |
| Other (non-white, non-black) | 0.0305 | 0.3383 |
| | [0.2028] | [0.3501] |
| Education Level: Less than High School | -0.00874 | -0.2665 |
| | [0.1686] | [0.3211] |
| Education Level: More than High School | 0.0934 | -0.0669 |
| | [0.1137] | [0.197] |
| Annual Household Income : up to $20,000 | -0.0189 | 0.5323 |
| | [0.1808] | [0.3133] |
| Annual Household Income: between $20,000 and $39,999 | -0.0174 | 0.4501 |
| | [0.1252] | [0.2254] |
| Marital Status: Married | 0.1389 | 0.1122 |
| | [0.2019] | [0.3178] |
| Living with partner | 0.3481 | -0.4059 |
| | [0.2526] | [0.4834] |
| Separated | 0.1065 | 0.1685 |
| | [0.3376] | [0.5211] |
| Divorced | -0.0207 | -0.3179 |
| | [0.2245] | [0.3698] |
| Widowed | -0.2063 | -0.2711 |
| | [0.3304] | [0.5655] |
| Government Program for Medical (Medicaid)? | 0.0627 | 0.0252 |
| | [0.0922] | [0.1542] |
| Regression Details (n=3235) | | |
| Intercept | -5.8873*** | -7.5589*** |
| | [1.1562] | [2.075] |
| Likelihood Ratio | 3479.59 | (df = 6E3) |

Notes: Standard Errors are in brackets. *** p<0.001, ** p<0.01, * p<0.05

# APPENDIX F

## Supplementary Analysis
## Multinomial Logistic Regression
## Models 1, 3, 4

### Self-Rated Health

The second group of variables entered into the regression model involves work-related stress buffers at the agency level. Results were nearly the same for all of the previously modeled variables. New variables included six types of training and these produced mostly non-significant coefficients. Aides with specific types of training (vs. those with no training) were less likely to report worse health than excellent health. Aides with agency based/hands on training (Very Good: -0.4273, s.d. 0.216, $p. < 0.05$) and aides with classroom training conducted offsite (Fair/Poor: -0.5497, s.d. 0.3256, $p. < 0.1$) were more likely to report worse health than aides who reported excellent health.

Variables related to agency-level support had more substantial effect. Aides with a supportive supervisor were less likely to report worse very good than excellent health (-0.612, s.d. 0.0218, $p. < 0.01$). Similarly, aides who sensed overall agency-level support were also less likely to report worse health than aides reporting excellent health. Good (-0.1251, s.d. 0.0359, $p. < 0.001$), Fair/Poor (-0.1557, s.d. 0.0476, $p. < 0.001$).

The third group of variables entered into the regression model involves work arrangements, exploring tenure in the occupation, tenure at the current agency and aides' satisfaction related to pay and benefits. Once again, after adding this set of variables to the first and second sets, variables previously retained the same levels of significance. Results were mostly non-significant, however, aides working in the field for more than 20 years were more likely to report worse health than aides reporting excellent health: Very Good (0.7568, s.d.

0.3383, p. < 0.05), Fair/Poor (1.4577, s.d. 0.6725, p. < 0.05). Also of interest, aides who reported that their "pay is good" (vs. those who report it is not), are less likely to report their health is very good, relative to those who report their health is excellent (-0.2377, s.d. 0.1077, p. < 0.05).

Days Away From Work

The second group of variables entered into the regression model involved work-related stress buffers at the agency-level. Nearly the exact results remained after adding this group of variables to the first group. Aides experiencing racial discrimination on the job and additional care burdens, with these additional agency-level variables added were still significantly more likely to miss work. Aides experiencing greater work demands were still more likely to miss 6 or more days of work, but the significance was slightly reduced (0.1676, s.d. 0.0627, p. 0.05). Similarly, those with elevated effort-reward imbalance were more likely to miss 6 or more days than missing no work, but the significance was reduced (0.0984, s.d. 0.0459, p. < 0.05).

The third group of variables entered into the regression model involves work arrangements. Once again, after adding this group of variables to the first and second groups, the same variables remained significant at the same levels of significance, with two exceptions. Not only were aides with elevated work demands significantly different when they missed 6 or more days (0.1618, s.d. 0.642, p. < 0.05), but aides with elevated work demands (vs. those without) were more likely to miss between 1 and 5 days (0.0720, s.d. 0.0442, p. < 0.1). The second exception is that aides experiencing racial discrimination (vs. those who do not), were not as significantly more likely to miss 1-5 days than to missed no work (0.4614, s.d. 0.2458, p. < 0.1).

With the third group added, only some socio-demographic variables changed while most remained the same in both direction and significance levels. In this regression, aides who self-report as Black were even less likely to miss between 1 and 5 days than to miss work (-0.6640, s.d. 0.2495, p. < 0.01). For the first time in this regression series, aides with annual incomes up to $20,000 (vs. those with incomes more than $40,000) were significantly more likely to miss work for 6 or more days than to not miss work (0.5919, s.d. 0.2906, p. < 0.05).

Number of Injuries

The second group of variables modeled involved work-related stress buffers at the agency level. Nearly the exact results remained after adding this group of variables to the first group. Aides experiencing greater work demands were still more likely to have injuries, but the significance for having two or more injuries increased once the second group of variables was present (0.1283, s.d. 0.0651, p. < 0.05). Aides experiencing effort-reward imbalance, racial discrimination on the job and additional care burdens were still significantly more likely to experience injuries.

With the third group added, socio-demographic variables were unchanged in direction and significance levels. The third group of variables modeled involves work arrangements, exploring variables related to tenure in the occupation, tenure at the current agency and aides' satisfaction related to pay and benefits. Results were all non-significant for the category of having experienced two injuries, except for one. Aides covered by health insurance (vs. aides who were not) were more likely to be in the category of aides who experienced one injury (0.2732, s.d. 0.0654, p. < 0.01) and two injuries (0.4513, s.d. 0.1378., p. < 0.01).

# APPENDIX G

## Barriers to Home Health Aide Recruitment

Agency leaders report a number of barriers to recruitment:

1. Finding "special" people is difficult.

   Recruiting aides that would work out, that would catch on to the work and become engaged long-term seemed very elusive. Finding those "special" people who will want to serve older and sick populations is a struggle. Senior management try to ascertain which home health aides were successfully recruited and retained.

> *You try to draw in some who are switching careerists because they have burned out on something and now they are looking for the human connection. That's really important for this group because that is what keeps them going and motivated. (Mary)*

> *Maybe they were certified nursing assistants in hospitals or nursing homes and they didn't like the pressures of working in the institutional setting. They have heard that home care is more one-on-one. They wanted give quality care so they are drawn to home care. We recruit these types from the local hospital within our system. (Rita)*

2. Drug Testing scares potential home health aides off.

   Several agency leaders expressed concern and dismay about not only the drug problems in their community, but the way the drug testing was hindering their recruitment efforts.

> *One of our biggest struggles right now is drug testing for the people coming in to become home health aides. We are screening so many applicants and when they hear about the drug testing they disappear. We have a very large percentage of individuals that are not passing the basic drug screening. I don't believe it's*

*mandated, but with the epidemic that we have and is very prevalent in this area, we went from doing urine testing each hair follicle test. And that has created a lot of angst for home health aides and nurses. We are finding opiates. It has become an epidemic in there is an increase in drug use in the community. It isn't because you're testing more so you're getting more, but that more people are using. (Rose)*

3. Seasonal pressures create staff reductions.

   Sometimes home health aides come on board for short durations because they are college students making extra income while away at school. Parents of school age children also leave their positions because either they choose to be present during children's summer vacations or it does not make sense for them to work while paying for full time childcare arrangement.

*I was only able to recruit one person all summer long. And this is a serious problem, especially in the summer. We lose a lot of aides right around April or May. Some of them were students. Also, it is summertime and the younger ones want to be home with their children and so they will re-sign. (Jessica)*

4. Connecting with job seekers requires computer savvy on their part.

   The process of finding work requires computer skills and access to computer equipment and internet connection. Most health care systems have human resource departments that have layers of people to meet for multiple interviews, even for basic jobs at the bottom of the organization. Usually the process starts on-line and other options for creating applications do not exist. This creates barriers for low-income job seekers who may not have access to computer resources or may not have sufficient computer skills.

*It is a struggle for our aide population to get on a computer. So we have seen a decline in referrals due to the way they have to access job posting. The whole way people apply for jobs is very cumbersome. (Rita)*

5. Building Case Loads.

   Home health care payment schemes are directly tied to reimbursement. When aides are hired, there are not usually existing cases for them to simply take over. With some fortuitous exceptions, newly hired home health aides build to full time work by adding cases to their case load to reach the number of hours they would like to work. This takes time and offers only the possibility of variable pay checks.

*Unfortunately when we hire people, we have to tell them that they have to build their caseloads. We are not able to give them 40 hours per week at first because they may not have enough cases. We have them start out with a couple of patients, and then as time goes on and the patient census turns over, that's how they aides get more cases. Some prefer the nursing homes because of that. They have 40 hours right away. (Olive)*

*If she really wants a steady paycheck, this may not be for her because it takes time to for her to build up their caseload. It could be several weeks before she has the cases that she wants. (Rita)*

6. Difficulty overcoming social problems precludes employability.

   Agencies provide some limited social assistance for their aides, in recognition of the problems they frequently face due to low socio-economic status. These helps can frequently make enough of a difference to keep aides on the job. However, home health agencies are challenged because, while they would like to hire more applicants, they are

not in a position to provide all of the social supports (i.e., financial, educational, mental health) that would be needed to create skilled and dependable home health aides. Even more challenging for agencies, is discovering how screen incoming applicants for the more insurmountable problems that create barriers to work.

> *Some have drug problems, attendance problems, or physically they are not healthy enough to do this job. And, so they don't actually come. Some have educational problems. They can't read. Or they have learning problems. Those may have been home health care aides elsewhere and they are trying to come on board with us, but we are trying to follow the NYS Department of Health standards. Some of those aides that come along have not been held to those standards. They have to show me that they can do this. Some have not ever been trained. Some need to brush up on their skills. (Betty)*

7. Human Resources Departments are sluggish and uncreative.

   With merging and the general growth of the home health care industry, many agencies must work with a human resource department within a larger health care system. These departments have policies and procedures that may move slowly, be entrenched in tradition, and be committed to using only the newest technology. These circumstances can run counter to quick hiring and interpersonal connection making in the community as a method for recruiting willing and retainable aides.

> *Currently we struggle with recruitment. As we turned the corner in January, we had great retention, but we were having trouble recruiting and we still are. Currently, we have met about 30% of our recruitment goals for the year and it's already going to be July. We should be at around 50% by now. My biggest challenge is trying to work with human resources because they are our recruitment team. Sometimes I work with human resources on it and sometimes I*

*go out and do my own. Human resources know what they are talking about, but sometimes they don't like to do things out of the box. It's very regimented and it goes according to how things have always been done. (Cora)*

8. Competing with other jobs

   Other types of low-paying, entry level jobs outside of health care are readily available. They sometimes offer more stable hours in locations on bus lines. Even other entry level health care jobs have steadier hours and more direct supervision in a far more predictable and regulated setting.

*For home health aides? There needs to be a different pay structure in order to recruit. One of the biggest challenges for home health aides is that they can go to a different job and stay there for eight hours. They can go to Burger King or McDonald's or to the grocery store and they can go and work their eight hour shifts and know that they are going to have eight hours of work. They don't have to have a car. They don't have to use gas. Most of them don't have reliable cars. And it's a component of the home care position to drive around. So that's a big challenge for us. (Linda)*

9. Agency resources wasted with misguided recruitment strategies

   Investing in college students seems worthwhile at first glance, but they often move on to other jobs as they progress in their education or their home of record is not local, so they are gone for summers and holidays. Even with involvement in high school health care training programs, the investment is not panning out since the students are not drawn to home care.

> *We do participate with the high school BOCES program. We take interns. But we have never employed one of those people. Nobody has ever come to want to work for us. They go into nursing homes. (Jessica)*

*Lack of work ethic*

Agency leaders, managers, RNs and even some aides report frustration about the lack of work ethic they observe in their co-workers, especially younger workers. They remark about how different the newer generation's mindset about work seems to be. They say that they lack engagement and tend to mount up minor infractions (such as repeated tardiness or sloppiness in record keeping). Older more experienced home health aides and their supervisors assert that these behaviors contribute to frustration and tension, leading to decreased morale, lower job satisfaction and an increase in the sense the effort one gives is not recognized evenly or fairly within the organization.

With agencies desperate to retain trained home health aides, they perceive that the newer workers and younger workers get away with taking more short cuts and do not have a "mission minded" attitude toward the work. Managers and schedulers say that the younger aides are more concerned about themselves than about the clients.

> *The younger generation is not the same. We've coddled them. And it's certainly not like when you and I grew up. We knew what work was when we were at a young age. We just hired a nurse who is 23 years old. She probably was very protected. She came to home care and got trained. She went out and got frightened in the community. Because she got approached by somebody who wanted her nurse bag and was hoping that she had drugs and her nurse bag. And this shook her up. She came in and said this is not for me, I am afraid. (Brenda)*

*Why people leave home care work*

Predicting which aides will stick around is an important component of recruitment and management strategies. In most of the agencies, small and large, the core group of home health aides was comprised of long-termers. Also, the average age of the aides tends to be in the 50s, with at least one agency leader observing early retirement patterns and suspecting it could be due to health reasons that at least some left their jobs.

Workers exhibit a variety of reactions to the fact that the only work available to them is unstable, impermanent, part-time, work with no health or retirement benefits. Some workers simply never find it reasonable to invest and engage with employers who pay so little, care so little, and develop no real pathways for raises or promotional pathways. Millenials, according to agency leaders, are hard to retain because "they do not appear to want to be permanently anywhere."(Patricia)

In a well-run home health care agency, home health care delivery must be consistently delivered at all levels of care to include nurse visits, occupational or physical therapy visits, or visits to address personal care routines. The role of the home health aide is especially important because the patients they serve are unable to manage their activities of daily living on their own without assistance. In an effort to combat high absenteeism among aides, managers and supervisors in some agencies have instituted strict rules about "calling off work." Ultimately, without social support from managers, these policies can be too harsh and negatively impact retention rates.

> *So many workers are looking for something else all the time. So, they keep their hands in a number of positions. I started to look at the numbers to discover why people leave. So what I found was that we had a "no call, no show, immediate termination" policy that resulted in being fired. Nobody found out why people were "no showing." (Anne)*

# REFERENCES

Aborg, C. (2010). *Lecture 7: IT, Stress and Occupational Health*. Retrieved December 5, 2010, from Uppsala Universitet: http://www.it.uu.se/edu/course/homepage/hcinet/ht05/lectures/lecture7

Abraham, K., Weber, W., & Personick, M. (1996). Improvements in the BLS Safety and Health Statistical System. Monthly Labor Review.

Agresti, A. (2007). *An Introduction to Categorical Analysis. 2nd Ed*. Hoboken, New Jersey: John Wiley & Sons, Inc.

American Psychological Association. (2010). About our History. Retrieved December 5, 2010, from Health Psychology Division 38: http://www.health-psych.org/PDF/DivHistory.pdf

Amirkhanyan, A. A., & Wolf, D. A. (2003). Caregiver Stress and Noncaregiver Stress: Exploring the Pathways of Psychiatric Morbidity. *Gerontologist, 43*(6), 817-827. doi: 10.1093/geront/43.6.817

Amuwo, S., Lipscomb, J., McPhaul, K., & Sokas, R. K. (2013). Reducing Occupational Risk for Blood and Body Fluid Exposure Among Home Care Aides: An Intervention Effectiveness Study. *Home Health Care Serv Q, 32*(4), 234-248.

Aneshensel, C. S. (2009). Toward explaining mental health disparities. Journal of Health and Social Behavior, 50(4), 377-394. doi: 10.1177/002214650905000401

Aneshensel, C. S., Rutter, C. M., & Lachenbruch, P. A. (1991). Social structure, stress, and mental health: Competing conceptual and analytic models. American Sociological Review, 56(2), 166-178. doi: 10.2307/2095777

Appelbaum, E. & Leana, C. (2013) Improving job quality in low-paying jobs: Care workers in the U.S. In V. Alakeson (ed.) The Squeezed Middle: The Pressures on Ordinary Workers in America and Britain. Chicago: University of Chicago Press, pp. 49-60.

Application of the Fair Labor Standards Act to Domestic Service, 67 16 (2002).

Arlinghaus, A., Caban-Martinez, A. J., Marino, M., & Reme, S. E. (2013). The role of ergonomic and psychosocial workplace factors in the reporting of back injuries among U.S. home health aides. *Am J Ind Med, 56*(10), 1239-1244. doi: 10.1002/ajim.22197

Ashley, A., Butler, S. S., & Fishwick, N. (2010). Home care aides' voices from the field: job experiences of personal support specialists. *Home Healthc Nurse, 28*(7), 399-405. doi: 10.1097/NHH.0b013e3181e325eb

Aust, B., Peter, R., & Siegrist, J. (1997). Stress management in bus drivers: A pilot study basedon the model of effort-reward imbalance . International Journal of Stress Management, 297 - 305.

Avery, D., & McCluskey, M. T. (2013). When Caring Is Work: Home, Health, and the Invisible Workforce. *Buff. L. Rev., 61*, 253.

Backinger, C. L., & Koustenis, G. H. (1994). Analysis of needlestick injuries to health care workers providing home care. *Am J Infect Control, 22*(5), 300-306.

Banijamali, S., Jacoby, D., & Hagopian, A. (2014). Characteristics of home care workers who leave their jobs: a cross-sectional study of job satisfaction and turnover in Washington State. *Home Health Care Serv Q, 33*(3), 137-158. doi: 10.1080/01621424.2014.929068

Barling, J. (2002). Editorial. Journal of Occupational Health Psychology

Baron, Beard, Davis, Delp, Forst, Kidd-Taylor, Liebman, Linnan, Punnett, & Welch. (2014) Promoting Integrated Approaches to Reducing Health Inequities Among Low-Income Workers: Applying a social ecological framework. *American Journal of Industrial Medicine,*57:539-556.

Baum, A. (1994). Behavioral, biological, and environmental interactions in disease processes. In S. M. Blumenthal, New Research Frontiers in Behavioral Medicine:Procedings of the National Conference (pp. 61-70). Washington, D.C. : National Institutes for Health Publications.

Beauvais, A., & Frost, L. (2014). Saving our backs: safe patient handling and mobility for home care. *Home Healthc Nurse, 32*(7), 430-434; quiz 435-436. doi: 10.1097/nhh.0000000000000110

Beer, J. M., McBride, S. E., Mitzner, T. L., & Rogers, W. A. (2014). Understanding challenges in the front lines of home health care: a human-systems approach. *Appl Ergon, 45*(6), 1687-1699. doi: 10.1016/j.apergo.2014.05.019

Belkic, K. L., Schnall, P., & Baker, D. (2004). Is job strain as major source of cardiovascular disease risk? Scandanavian Journal of Work and Environmental Health , 85 - 128.

Bellavia, F. M., & Frone, M. R. (2005). Work–family conflict. In J. Barling, E. K. Kelloway, & M. R. Frone (Eds.), Handbook of work stress (pp. 113–147). London:Sage.

Bellingrath, S., Weigl, T., & Kudjelka, B. (2008). Cortisol dysregulation in school teachers in relation to burnout, vital exhaustion, and effort-reward imbalance. *Biological Psychology*, 104 - 114.

Beltrami, E. M., McArthur, M. A., McGeer, A., Armstrong-Evans, M., Lyons, D., Chamberland, M. E., & Cardo, D. M. (2000). The nature and frequency of blood contacts among home healthcare workers. *Infect Control Hosp Epidemiol, 21*(12), 765-770. doi: 10.1086/501730

Benach, J., Muntaner, C. (2007). Precarious employment and health: developing a research agenda. Journal of Epidemiology and Community Health, 61(4): 276–277. doi: 10.1136/jech.2005.045237

Benach, J., Solar, O., Santana, V., Castedo, A., Chung, H., & Muntaner, C. (2010). A micro-level model of employment relations and health inequalities. International Journal of Health Services, 40(2), 223-227.

Benjamin, A. E., Matthias, R. E., Kietzman, K., & Furman, W. (2008). Retention of Paid Related Caregivers: Who Stays and Who Leaves Home Care Careers? *Gerontologist, 48*(suppl 1), 104-113. doi: 10.1093/geront/48.Supplement_1.104

Benson, J. E. (2014). Reevaluating the “subjective weathering” hypothesis: Subjective aging, coping resources, and the stress process. Journal of Health and Social Behavior, 55(1), 73-90. doi: 10.1177/0022146514521214

Bercovitz, A., Moss, A., Sengupta, M., Park-Lee, E. Y., Jones, A., & Harris-Kojetin, L. D. (2011). An overview of home health aides: United States, 2007. *Natl Health Stat Report*(34), 1-31.

Bernhardt A. 2012. “The Low-Wage Recovery and Growing Inequality.” National Employment Law Project.

Bernhardt, A., Spiller, M. W., & Theodore, N. (2013). Employers gone rogue: Explaining industry variation in violations of workplace laws. *Industrial & Labor Relations Review, 66*(4), 808-832.

Blesch, G. (2007). Overtime ruling applauded. SEIU taking home-care workers' case to states. *Mod Healthc, 37*(25), 10-11.

Boris & Klein. (2012).Caring for America: Home Health Workers in the Shadow of the Welfare State.

Boris & Parrenas. (2010). Intimate Labors: Cultures Technologies, and the Politics of Care

Boris, E., & Klein, J. (2012). *Caring for America: home health workers in the shadow of the welfare state*. New York: Oxford University Press.

Borkowski, L., Monforton, C. (2012). Mom’s off Work ’Cause She Got Hurt: The Economic Impact of Workplace Injuries and Illnesses in the U.S.’s Growing Low-Wage Workforce. Policy Brief. http://defendingscience.org/sites/default/files/Borkowski_Monforton_Low-wage_Workforce.pdf

Brillhart, B., Kruse, B., & Heard, L. (2004). Safety concerns for rehabilitation nurses in home care. *Rehabil Nurs, 29*(6), 227-229.

Buch, E. D. (2014). Troubling gifts of care: vulnerable persons and threatening exchanges in Chicago's home care industry. *Med Anthropol Q, 28*(4), 599-615. doi: 10.1111/maq.12126

Bultmann, IJ, Kant. C., Schroer, B., Kasl, S. (2014) The relationship between psychosocial work characteristics and fatigue and psychological distress. International Archives of Occupational and Environmental Health, 75, Issue 4 (pp. 259-266)

Bultmann, U., Kant, I., Kasl, S., Beurskens, A., & van den Brandt, P. (2002). Fatigue and psychological distress in the working population: psychometrics, prevalence and correlates. Journal of Psychosomatic Research, 445 - 452.

Bureau Labor Statistics. (2015a). Databases, Tables & Calculators by Subject Labor Force Statistics from the Current Population Survey. http://data.bls.gov/timeseries/LNS11300000

Bureau Labor Statistics. (2015b). Databases, Tables & Calculators by Subject Labor Force Statistics from the Current Population Survey. http://data.bls.gov/timeseries/LNS13025703

Bureau Labor Statistics. (2015c). Databases, Tables & Calculators by Subject Labor Force Statistics from the Current Population Survey. http://data.bls.gov/timeseries/LNS12032194

Bureau Labor Statistics. (2015d). Databases, Tables & Calculators by Subject Labor Force Statistics from the Current Population Survey. http://data.bls.gov/timeseries/LNS12032194

Burgard, S. A., Brand, J. E., & House, J. S. (2009). Perceived job insecurity and worker health in the United States. Social Science & Medicine, 69(5), 777-785. doi: 10.1016/j.socscimed.2009.06.029

Butler, S. (2009). Women still taking care: the experiences of older home care workers. *J Gerontol Soc Work, 52*(3), 277-293. doi: 10.1080/01634370802609106

Butler, S. S. (2013). Older women doing home care: exploitation or ideal job? *J Gerontol Soc Work, 56*(4), 299-317. doi: 10.1080/01634372.2013.773392

Butler, S. S., & Rowan, N. (2013). Supporting home care aides: what employers can do to assist their workers. *Home Healthc Nurse, 31*(10), 546-552. doi: 10.1097/01.nhh.0000436224.22906.86

Butler, S. S., Brennan-Ing, M., Wardamasky, S., & Ashley, A. (2014). Determinants of longer job tenure among home care aides: what makes some stay on the job while others leave? *J Appl Gerontol, 33*(2), 164-188. doi: 10.1177/0733464813495958

Butler, S. S., Turner, W., Kaye, L. W., Ruffin, L., & Downey, R. (2005). Depression and caregiver burden among rural elder caregivers. *J Gerontol Soc Work, 46*(1), 47-63. doi: 10.1300/J083v46n01_04

Butler, S. S., Wardamasky, S., & Brennan-Ing, M. (2012). Older women caring for older women: the rewards and challenges of the home care aide job. *J Women Aging, 24*(3), 194-215. doi: 10.1080/08952841.2012.639667

Cabin, W., Himmelstein, D. U., Siman, M. L., & Woolhandler, S. (2014). For-profit medicare home health agencies' costs appear higher and quality appears lower compared to nonprofit agencies. *Health Aff (Millwood), 33*(8), 1460-1465. doi: 10.1377/hlthaff.2014.0307

Campbell, C. L., McCoy, S., Burg, M. A., & Hoffman, N. (2013). Enhancing Home Care Staff Safety Through Reducing Client Aggression and Violence in Noninstitutional Care Settings A Systematic Review. *Home Health Care Management & Practice*, 1084822313497364.

Canan, S., Morgan, E., & Vignery, B. (2011). How the FAIR LABOR STANDARDS ACT Fails Home Health Aides and Consumers. *Clearinghouse Rev., 45*, 308-501.

Cannon, W. (1933). Chemical Mediators of Autonomic Nerve Impulses. *Science*, 43 - 48.

Cassano. (2014). Book reviews: *Caring for America: Home Health Care Workers in the Shadow of the Welfare State.* By Eileen Boris and Jennifer Klein. Critical Sociology Vol. 40(4) 643–647.

Centers for Disease Control: Design and Operation of the National Home Health Aide Survey: 2007–2008 http://permanent.access.gpo.gov/gpo567/sr01_049.pdf

Chalupka, S. M., Markkanen, P., Galligan, C., & Quinn, M. (2008). Sharps injuries and bloodborne pathogen exposures in home health care. *Aaohn j, 56*(1), 15-29; quiz 31-12.

Chandola, T., Britton, A., Brunner, E., Hemingway, H., Malik, M., & Kumari, M. (2008). Work stress and coronory heart disease: What are the mechanisms? *European Heart Journal*, 640 - 648.

Cohen, S. H. (2002). Reactivity and vulnerability to stress-associated risk for upper respiratory illness. *Psychosomatic Medicine*, 302 - 310.

Cohen, S., & Spacapan, S. (1978). The aftereffects of stress: an attentional interpretation. *Environmental Psychology and Nonverbal Behavior*, 43 - 57.

Collins, S., Karasek, R., & Costas, K. (2005). Job Strain and Autonomic Indices of Cardiovascular Disease Risk. American Journal of Industrial Medicine, 182 - 193.

Craven, C., Byrne, K., Sims-Gould, J., & Martin-Matthews, A. (2012). Types and patterns of safety concerns in home care: staff perspectives. *International Journal for Quality in Health Care*, mzs047.

Cullati, S. (2014). The influence of work-family conflict trajectories on self-rated health trajectories in Switzerland: A life course approach. Social Science & Medicine, 113c, 23-33. doi: 10.1016/j.socscimed.2014.04.030

Czuba, L. R., Sommerich, C. M., & Lavender, S. A. (2012). Ergonomic and safety risk factors in home health care: Exploration and assessment of alternative interventions. *Work, 42*(3), 341-353. doi: 10.3233/wor-2012-1433

Damaske, S., Smyth, J., & Zawadzki, M. (2014). Has Work Replaced Home as a Haven? Re-examining Arlie Hochschild's Time Bind Proposition with Objective Stress Data. Social Science & Medicine, in press. doi: http://dx.doi.org/10.1016/j.socscimed.2014.04.047

de Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort–reward imbalance and employee well-being: A large-scale cross-sectional study. Social Science & Medicine, 50(9), 1317-1327. doi: 10.1016/S0277-9536(99)00388-3

de Jonge, J., van Vegchel, N., Shimazu, A., Schaufeli, W., & Dormann, C. (2010). A longitudinal test of the demand-control model using specific job demands and specific job control. International Journal of Behavioral Medicine, 125 - 133.

de Lange, A. H., Kompier, M. A., Taris, T. W., Geurts, S. A., Beckers, D. G., Houtman, I. L., & Bongers, P. M. (2009). A hard day's night: a longitudinal study on the relationships among job demands and job control, sleep quality and fatigue. J Sleep Res, 18(3), 374-383. doi: 10.1111/j.1365-2869.2009.00735.x

de Lange, A. H., Taris, T. W., Kompier, M. A., Houtman, I. L., & Bongers, P. M. (2005). Different mechanisms to explain the reversed effects of mental health on work characteristics. Scand J Work Environ Health, 31(1), 3-14.

DeWalt, K., & DeWalt, B. (2011). *Participant observation: A guide for fieldworkers. 2nd ed.* Plymouth, UK: Altamira Press.

Dellasega, C. (1990). The relationship between caregiving and employment. A study of stress in employed and unemployed caregivers of elderly persons. *Aaohn j, 38*(4), 154-159.

Delp, L., Wallace, S. P., Geiger-Brown, J., & Muntaner, C. (2010). Job stress and job satisfaction: home care workers in a consumer-directed model of care. *Health Serv Res, 45*(4), 922-940. doi: 10.1111/j.1475-6773.2010.01112.x

Denton, M., Zeytinoglu, I. U., Davies, S., & Lian, J. (2002). Job stress and job dissatisfaction of home care workers in the context of health care restructuring. *Int J Health Serv, 32*(2), 327-357.

DePasquale, N., Davis, K. D., Zarit, S. H., Moen, P., Hammer, L. B., & Almeida, D. M. (2014). Combining Formal and Informal Caregiving Roles: The Psychosocial Implications of Double- and Triple-Duty Care. *J Gerontol B Psychol Sci Soc Sci*. doi: 10.1093/geronb/gbu139

Devault, M. (1999). Comfort and Struggle: Emotion Work in Family Life. Annals of the American Academy for Political and Social Sciences 561: 52-63.

Diamond, T. (1995). *Making Gray Gold : Narratives of Nursing Home Care*. Chicago: University of Chicago Press.

Diaz-Ordaz, L. (2010). Real Work: Domestic Workers' Exclusion from the Protections of Labor Laws. *Buff. J. Gender L. & Soc. Pol'y, 19*, 107.

Doussard, Marc. (2013). *Degraded Work: The Struggle at the Bottom of the Labor Market*. University of Minnesota Press. Minneapolis, MN.

Dragano, N., Ying, H., Moebus, S., Jockel, K., Erbel, R., & Siegrist, J. (2008). Two models of job stress and depressive symptoms: Results from a population based study. Social Psychiatry and Psychiatric Epidemiology, 72 - 78.

Duffy, M. (2011). *Making Care Count: A century of gender, race and paid care work*. Rutgers University Press.

Duffy, M., Armenia, A., & Stacey, C. L. (2015). *Caring on the clock: the complexities and contradictions of paid care work.* New Brunswick, New Jersey; London: Rutgers University Press.

Ejaz, F. K., Noelker, L. S., Menne, H. L., & Bagaka's, J. G. (2008). The Impact of Stress and Support on Direct Care Workers' Job Satisfaction. *Gerontologist, 48*(suppl 1), 60-70. doi: 10.1093/geront/48.Supplement_1.60

Elovainio, M., Kivimäki, M., Steen, N., & Vahtera, J. (2004). Job decision latitude, organizational justice and health: Multilevel covariance structure analysis. Social Science & Medicine, 58(9), 1659-1669. doi: 10.1016/S0277-9536(03)00366-6

Emerson R., Fretz, R., &Shaw, L. (2011). *Writing Ethnographic Field Notes. 2nd ed.* Chicago:University of Chicago Press.

Ertel, K., Koenen, K., & Berkman, L. (2008). Incorporating home demands into models of job strain: Findings from the work, family, and health network. Journal of Occupational Medicine, 1244 - 1252.

Ferrie, J. E., Shipley, M. J., Newman, K., Stansfeld, S. A., & Marmot, M. (2005). Self-reported job insecurity and health in the Whitehall II study: potential explanations of the relationship. Social Science & Medicine, 60(7), 1593-1602. doi: 10.1016/j.socscimed.2004.08.006

Fine, Janice. (2006). *Worker Centers: Organizing Communities on the Edge of the Dream*. Ithaca, NY. Cornell University Press.

Folbre, N. (Ed.). (2012). *For Love and Money: Care Provision in the United States*. New York: Russell Sage

Fowler, R. M. (2008). Home healthcare workers and the Fair Labor Standards Act. *J Health Life Sci Law, 1*(3), 107, 109-135.

Freedman, V. A., & Spillman, B. C. (2014). Disability and care needs among older Americans. *Milbank Q, 92*(3), 509-541. doi: 10.1111/1468-0009.12076

Freeman, R.B. (2004). The Road to Union Renaissance in the United States. In Phanindra, V. Wunnava, (Ed.).*The Changing Role of Unions: New Forms of Representation*. M.E. Sharp, Armonk, NY.

Friedman, M., & Rosenman, R. (1974). Type A Behavior and Your Heart. New York : Knopf.

From, I., Nordstrom, G., Wilde-Larsson, B., & Johansson, I. (2013). Caregivers in older peoples' care: perception of quality of care, working conditions, competence and personal health. *Scand J Caring Sci, 27*(3), 704-714. doi: 10.1111/j.1471-6712.2012.01083.x

Fujishiro, K., Landsbergis, P. A., Diez-Roux, A. V., Stukovsky, K. H., Shrager, S., & Baron, S. (2011). Factorial invariance, scale reliability, and construct validity of the job control and job demands scales for immigrant workers: the multi-ethnic study of atherosclerosis. J Immigr Minor Health, 13(3), 533-540. doi: 10.1007/s10903-010-9364-2

Gabriel, B. A. (2004). Home care aides reaping personal rewards. *Caring, 23*(5), 42-43.

Galinsky, T., Feng, H. A., Streit, J., Brightwell, W., Pierson, K., Parsons, K., & Proctor, C. (2010). Risk factors associated with patient assaults of home healthcare workers. *Rehabil Nurs, 35*(5), 206-215.

Galinsky, T., Waters, T., & Malit, B. (2001). Overexertion injuries in home health care workers and the need for ergonomics. *Home Health Care Serv Q, 20*(3), 57-73. doi: 10.1300/J027v20n03_04

García-Herrero, S., Mariscal, M. A., Gutiérrez, J. M., & Ritzel, D. O. (2013). Using Bayesian networks to analyze occupational stress caused by work demands: Preventing stress through social support. Accident Analysis and Prevention, 57, 114-123. doi: 10.1016/j.aap.2013.04.009

Gerrick, K. J. (2003). An inquiry into unionizing home healthcare workers: benefits for workers and patients. *Am J Law Med, 29*(1), 117-138.

Gershon, R. R., Magda, L. A., Canton, A. N., Riley, H. E., Wiggins, F., Young, W., & Sherman, M. F. (2010). Pandemic-related ability and willingness in home healthcare workers. *Am J Disaster Med, 5*(1), 15-26.

Gerstel, N., & Clawson, D. (2015). Low-Wage Care Workers: Extended Family as a Strategy for Survival. In C. L. Stacey, A. Armenia & D. Mignon (Eds.), *Caring on the Clock: The*

*Complexities and Contradictions of Paid Care Work* (pp. 179-188). New Brunswick, NJ: Rutgers University Press.

Ghosh, A. (2000). Occupational stress, strain, and coping in physicians and executives. Journal of Personality and Clinical Studies, 9 - 15.

Glasmeier AK, Farrigan TL. (2012). Poverty in America: Living Wage Calculator. http://livingwage.mit.edu/

Glavin, P., Schieman, S., & Reid, S. (2011). Boundary-spanning work demands and their consequences for guilt and psychological distress. Journal of Health and Social Behavior, 52(1), 43-57. doi: 10.1177/0022146510395023

Gonos G., & Martino R. (2011). Temp Agency Workers in New Jersey's Logistics Hub: The case for a union hiring hall. *WorkingUSA:The Journal of Labor and Society*, 14: 499–525.

Gordon, D., & Schnall, P. (2009). Beyond the Individual: Connecting Work Environment and Health . In P. Schnall, M. Dobson, & E. Rosskam, *Unhealthy Work: Causes, Consequences, Cures* (pp. 1 - 15). Amityville, N.Y.: Baywood Publishing Company.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*, 76–88.

Grissom, N. (2009). Model for consideration: retaining the experienced aging workforce in home care. *Home Healthc Nurse, 27*(1), 60-63. doi: 10.1097/01.nhh.0000343788.42218.69

Haiduven, D., & Ferrol, S. (2004). Sharps injuries in the home health care setting: risks for home health care workers. *AAOHN, 52*(3), 102-108.

Haukenes I, Gjesdal S, Rortveit G, Riise T, Maeland JG. (2012). Women's higher likelihood of disability pension: the role of health, family and work. A 5-7 years follow-up of the Hordaland Health Study. *BMC Public Health*, 31;12:720. doi: 10.1186/1471-2458-12-720.

Heinrich, H. Universität Düsseldorf. (2008). Effort Reward Imbalance. Retrieved December 5, 2010, from Institut für Medizinische Soziologie: http://www.uni-duesseldorf.de/medicalsociology/effort-reward_imbalance_at_wor.112.0.html. Retrieved March 27, 2017.

Herin F, Vézina M, Thaon I; ESTEV group, Soulat JM, Paris C. (20140. Predictive risk factors for chronic regional and multiple body sites musculoskeletal pain: A 5-year prospective study in a working population. *Pain*. [Feb 18 2014 Epub ahead of print].

Holmes, T., & Rahe, R. (1967). the social readjustment rating scale . Journal of Psychosomatic Research, 213 - 218.

Horneij, E. L., Jensen, I. B., Holmstrom, E. B., & Ekdahl, C. (2004). Sick leave among home-care personnel: a longitudinal study of risk factors. *BMC Musculoskelet Disord, 5*(1), 38. doi: 10.1186/1471-2474-5-38

Houston, A., Young, Y., & Fitzgerald, E. F. (2013). Work-Related Injuries An Old Problem Revisited in the First Representative US Sample of Home Health Aides. *Journal of aging and health, 25*(6), 1065-1081.

Hoven, H., Wahrendorf, M., & Siegrist, J. (2015). Occupational position, work stress and depressive symptoms: a pathway analysis of longitudinal SHARE data. *J Epidemiol Community Health*. doi: 10.1136/jech-2014-205206

Howard, N., & Adams, D. (2010). An analysis of injuries among home health care workers using the Washington state workers' compensation claims database. *Home Health Care Serv Q, 29*(2), 55-74. doi: 10.1080/01621424.2010.493435

Hurwitz, E., Netterstrom, B., & Hansen, A. (2006). Psychosocial factors at home and at work and levels of salivary cortisol. *Biological Psychology*, 280 - 287.

Jane Aronson and Sheila M. Neysmith Obscuring the costs of home care: restructuring at work Work, Employment & Society March 2006 20: 27-45, doi:10.1177/0950017006061272

Janz, K. (2005). All home care is not created equal--one view: dramatic growth in home health care industry creates unregulated workforce; more government oversight is needed. *Geriatr Nurs, 26*(1), 53-55. doi: 10.1016/j.gerinurse.2004.12.008

Johnson, J. (2004). Occupational Stress. In J. Weeks, B. Levy, & G. Wagner, *Preventing Occupational Disease and Injury*. Washington, D.C. : American Public Health Association.

Kahn, R. L., Wolfe, D., Quinn, R., Snoek, J., & Rosenthal,R. (1964). *Organizational stress: Studies in role conflictand ambiguity.* New York: Wiley.

Kapp, M. B. (2008). Regulating payment for home care companionship services: legal authority and public policy. *Care Manag J, 9*(3), 122-127.

Karasek, R., Baker, D., Marxer, F., Ahlbom, A., & Theorell, T. (1981). Job decision latitude, job demands, and cardiovascular disease: A prospective study of Swedish men. *American Journal of Public Health*, 694 - 705.

Karmakar, S. D., & Breslin, F. C. (2008). The role of educational level and job characteristics on the health of young adults. Social Science & Medicine, 66(9), 2011-2022. doi: 10.1016/j.socscimed.2008.01.017

Kelly, C. M., Morgan, J. C., & Jason, K. J. (2013). Home care workers: interstate differences in training requirements and their implications for quality. *J Appl Gerontol, 32*(7), 804-832. doi: 10.1177/0733464812437371

Kelly, E. L., Moen, P., & Tranby, E. (2011). Changing Workplaces to Reduce Work-Family Conflict: Schedule Control in a White-Collar Organization. American Sociological Review, 76(2), 265-290. doi: 10.1177/0003122411400056

Kemper, P., Brannon, D., Barry, T., Stott, A., & Heier, B. (2008). Implementation of the Better Jobs Better Care Demonstration: Lessons for Long-Term Care Workforce Initiatives. *Gerontologist, 48*(suppl 1), 26-35. doi: 10.1093/geront/48.Supplement_1.26

Kietzman, K. G., Benjamin, A. E., & Matthias, R. E. (2008). Of family, friends, and strangers: caregiving satisfaction across three types of paid caregivers. *Home Health Care Serv Q, 27*(2), 100-120. doi: 10.1080/01621420802022555

Kim,Susanna. (2014, December 31). What to Know About the Widespread Minimum Wage Increase, by the Numbers? Retrieved from http://abcnews.go.com/Business/widespread-minimum-wage-increase-numbers/story?id=27923964

Kivimäki, M., Vahtera, J., Virtanen, M. Elovainio, M., Pentti, J. Ferrie, J.(2003). Temporary Employment and Risk of Overall and Cause-specific Mortality. American Journal of Epidemiology, 158 (7): 663-668. doi:10.1093/aje/kwg185

Klein, J., & Boris, E. (2013). We Have to Take It to the Top: Workers, State Policy, and the Making of Home Care. *Buff. L. Rev., 61*, 293.

Kleiner, S., & Pavalko, E. K. (2010). Clocking In: The Organization of Work Time and Health in the United States. Social Forces, 88(3), 1463-1486. doi: 10.2307/40645899

Knickman, J. R., & Stone, R. I. (2007). The public/private partnership behind the Cash and Counseling Demonstration and Evaluation: its origins, challenges, and unresolved issues. *Health Serv Res, 42*(1 Pt 2), 362-377. doi: 10.1111/j.1475-6773.2006.00675.x

Kossek, E. & Lambert, S.J. (Eds.). (2005). Work and Life Integration: Organizational Cultural and Individual Perspectives. Mahwah, NJ: Lawrence Erlbaum Associates.

Kriebel, D., Brouillette, N., Markkanen, P., Galligan, C., Sama, S., Gore, R., . . . Quinn, M. (2014). 0289 Preventing needlesticks and other sharps injuries to home care aides: results of a survey to identify hazards during home visits. *Occup Environ Med, 71 Suppl 1*, A36-37. doi: 10.1136/oemed-2014-102362.113

Krieger, N., Chen, J. T., Waterman, P. D., Hartman, C., Stoddard, A. M., Quinn, M. M., . . . Barbeau, E. M. (2008). The inverse hazard law: blood pressure, sexual harassment, racial discrimination, workplace abuse and occupational exposures in US low-income black, white and Latino workers. Social Science & Medicine, 67(12), 1970-1981. doi: 10.1016/j.socscimed.2008.09.039

Kristensen, T., Hannerz, H., Hogh, A., & Borg, V. (2005) The Copenhagen Psychosocial Questionnaire – a tool for the assessment and improvement of the psychosocial work environment. *Scand J Work Environ Health*, 31(6), 438-49.

Kunz-Ebrecht, S. R., Kirschbaum, C., & Steptoe, A. (2004). Work stress, socioeconomic status and neuroendocrine activation over the working day. Social Science & Medicine, 58(8), 1523-1530. doi: 10.1016/S0277-9536(03)00347-2

Landsbergis, P. (2014) face-to-face conversation. Brooklyn, New York. July 29, 2014.

Landsbergis, P. A., Grzywacz, J. G., & LaMontagne, A. D. (2014). Work organization, job insecurity, and occupational health disparities. American Journal of Industrial Medicine, 57(5), 495-515. doi: 10.1002/ajim.22126

Landsbergis, P., Greiner, B., Krause, N., Schwartz, J. Thoerell, T. (2000). Measurement of psychosocial workplace exposure variables; conclusions and recommendations. In *Occupational Medicine: State of the Art Reviews*, 15:1. Philadelphia. Hanley & Belfus, Inc.

Landsbergis, P., Schnall, P., & Dobson, M. (2009). The Workplace and Cardiovascular Disease. In P. Schnall, M. Dobson, & E. Rosskam, *Unhealthy Work: Causes, Consequences, Cures* (pp. 80 - 112). Amityville, N.Y.: Baywood Publishing Company, Inc.

LaPlante, M. P., Harrington, C., & Kang, T. (2002). Estimating paid and unpaid hours of personal assistance services in activities of daily living provided to adults living at home. *Health Serv Res, 37*(2), 397-415.

Larsson, A., Karlqvist, L., Westerberg, M., & Gard, G. (2012). Identifying work ability promoting factors for home care aides and assistant nurses. *BMC Musculoskelet Disord, 13*, 1. doi: 10.1186/1471-2474-13-1

Laszlo, K. D., Pikhart, H., Kopp, M. S., Bobak, M., Pajak, A., Malyutina, S., . . . Marmot, M. (2010). Job insecurity and health: a study of 16 European countries. Social Science & Medicine, 70(6), 867-874. doi: 10.1016/j.socscimed.2009.11.022

Lax, M. (2006). Inspiration for a Movement: Re-reading Death on the Job. *New Solutions,* Vol. 16(3) 315-348.

Lee, D., & Jun Kwak, W. (2014). Interactive effects of consideration leadership on the association of injury with training among home health aides. *Leadership in Health Services, 27*(1), 41-50.

Leigh, J.P, Du J. (2012). Are low wages risk factors for hypertension? European Journal of Public Health. Dec; 22(6):854-9.

Leigh, J.P. (2011). Economic burden of occupational injury and illness in the United States. Milbank Quarterly, 89(4):728-72.

Leigh, JP. (2012). Number and costs of occupational injury and illness in low-wage occupations. Center for Poverty Research and Center for Health Care Policy and Research. University of California Davis. Davis, CA.

Lilly, M. B., Laporte, A., & Coyte, P. C. (2007). Labor market work and home care's unpaid caregivers: a systematic review of labor force participation rates, predictors of labor market withdrawal, and hours of work. *Milbank Q, 85*(4), 641-690. doi: 10.1111/j.1468-0009.2007.00504.x

Lin, W. C., Tsai, C. F., Wang, S. J., Hwang, J. P., & Fuh, J. L. (2012). Comparison of the burdens of family caregivers and foreign paid caregivers of the individuals with dementia. *Int Psychogeriatr, 24*(12), 1953-1961. doi: 10.1017/s1041610212001354

Lindquist, L. A., Cameron, K. A., Messerges-Bernstein, J., Friesema, E., Zickuhr, L., Baker, D. W., & Wolf, M. (2012). Hiring and screening practices of agencies supplying paid caregivers to older adults. *J Am Geriatr Soc, 60*(7), 1253-1259. doi: 10.1111/j.1532-5415.2012.04047.x

Lindquist, L. A., Jain, N., Tam, K., Martin, G. J., & Baker, D. W. (2011). Inadequate health literacy among paid caregivers of seniors. *J Gen Intern Med, 26*(5), 474-479. doi: 10.1007/s11606-010-1596-2

Lindquist, L. A., Tam, K., Friesema, E., & Martin, G. J. (2012). Paid caregiver motivation, work conditions, and falls among senior clients. *Arch Gerontol Geriatr, 55*(2), 442-445. doi: 10.1016/j.archger.2012.01.008

Lippitt, J. (2011). Protecting the Protectors: A Call for Fair Working Conditions for Home Health Care Workers. *Elder LJ, 19*, 219.

Lipscomb, H., Loomis, D., McDonald, M., Argue, R., Wing, S. (2006). A conceptual model of work and health disparities in the United States. *International Journal of Health Services*, 36(1) 25 - 50.

Lipscomb, J., Sokas, R., McPhaul, K., Scharf, B., Barker, P., Trinkoff, A., & Storr, C. (2009). Occupational blood exposure among unlicensed home care workers and home care registered nurses: are they protected? *Am J Ind Med, 52*(7), 563-570. doi: 10.1002/ajim.20701

Luchman, J. N., & González-Morales, M. (2013). Demands, control, and support: A meta-analytic review of work characteristics interrelationships. Journal Of Occupational Health Psychology, 18(1), 37-52. doi:10.1037/a0030541

Lyness, K. S., Gornick, J. C., Stone, P., & Grotto, A. R. (2012). It's all about control: Worker control over schedule and hours in cross-national context. American Sociological Review, 77(6), 1023-1049. doi: 10.1177/0003122412465331

Macklin, D.S., Smith, L.A., Dollard M.F. (2006). "Public and private sector work stress: Workers compensation, levels of distress and job satisfaction, and the demand-control-support model." Australian journal of psychology, 58 (3), p. 130.

Madsen, I. E., Aust, B., Burr, H., Carneiro, I. G., Diderichsen, F., & Rugulies, R. (2012). Paid care work and depression: a longitudinal study of antidepressant treatment in female eldercare workers before and after entering their profession. *Depress Anxiety, 29*(7), 605-613. doi: 10.1002/da.21940

Marchand, A., & Durand, P. (2011). Psychological distress, depression, and burnout: Similar contribution of the job demand-control and job demand-control-support models. Journal Of Occupational And Environmental Medicine,53(2), 185-189. doi:10.1097/JOM.0b013e318206f0e9

Marinaccio, A., Ferrante, P., Corfiati, M., Di Tecco, C., Rondinone, B. M., Bonafede, M., . . . Iavicoli, S. (2013). The relevance of socio-demographic and occupational variables for the assessment of work-related stress risk. BMC Public Health, 13, 1157. doi: 10.1186/1471-2458-13-1157

Mark, G. G., & Smith, A. P. (2012). Occupational stress, job characteristics, coping, and the mental health of nurses.British Journal Of Health Psychology, 17(3), 505-521. doi:10.1111/j.2044-8287.2011.02051.x

Markkanen, P., Quinn, M., Galligan, C., Sama, S., Brouillette, N., & Okyere, D. (2014). Characterizing the Nature of Home Care Work and Occupational Hazards: A Developmental Intervention Study. *American Journal of Industrial Medicine, 57*(4), 445-457. doi: 10.1002/ajim.22287

Marklund, S., Bolin, M., & von Essen, J. (2008). Can individual health differences be explained by workplace characteristics?--A multilevel analysis. Social Science & Medicine, 66(3), 650-662. doi: 10.1016/j.socscimed.2007.09.008

Marmot, M.G. (1994). Social differences in health within and between populations. Daedalus,123,197–216.

Mazzola, J. J., Schonfeld, I., & Spector, P. E. (2011). What qualitative research has taught us about occupational stress. *Stress and Health*, 27, 93-110. doi:10.1002/smi.1386

McBride, S. E., Beer, J. M., Mitzner, T. L., & Rogers, W. A. (2011). Challenges for home health care providers: A needs assessment. *Physical & Occupational Therapy in Geriatrics*, *29*(1), 5-22.

McCaughey, D., McGhan, G., Kim, J., Brannon, D., Leroy, H., & Jablonski, R. (2012). Workforce implications of injury among home health workers: evidence from the National Home Health Aide Survey. *Gerontologist, 52*(4), 493-505. doi: 10.1093/geront/gnr133

McCaughey, D., McGhan, G., Walsh, E. M., Rathert, C., & Belue, R. (2014). The relationship of positive work environments and workplace injury: evidence from the National Nursing Assistant Survey. *Health Care Manage Rev, 39*(1), 75-88. doi: 10.1097/HMR.0b013e3182860919

McEwen, B. (1998). Protective and damaging effects of stress mediators. *New England Journal of Medicine,* 17 - 31.

McGraw Hill Companies, Inc. (2010). Medical Dictionary. Retrieved December 5, 2010, from The Free Dictionary: http://medical-dictionary.thefreedictinary.com/HPA+axis

Meyer, J. D., & Muntaner, C. (1999). Injuries in home health care workers: an analysis of occupational morbidity from a state compensation database. *Am J Ind Med, 35*(3), 295-301.

Ming, E., Adler, G., Kessler, R., Fogg, L., Matthews, K., & Herd, J. (2004). Cardiovascular reactivity to work stress predicts subsequent onset of hypertension: The air traffic controller health change study. Psychosomatic Medicine, 459 - 465.

Mirowsky, J., Ross, C. (2003b). Education, Social Status and Health. Hawthorne, N.Y.: Aldine

Mittal, V., Rosen, J. & Leana, C. (2009) A dual-process model of retention and turnover in the direct care workforce: Insights from qualitative research. The Gerontologist, 49: 623-634.

Moen, P., Kelly, E. L., & Lam, J. (2013). Healthy work revisited: Do changes in time strain predict well-being? *Journal of Occupational Health Psychology,* 18(2), 157-172. doi: 10.1037/a0031804

Moen, P., Kelly, E. L., Tranby, E., & Huang, Q. (2011). Changing work, changing health: Can real work-time flexibility promote health behaviors and well-being? *Journal of Health and Social Behavior*, 52(4), 404-429. doi: 10.1177/0022146511418979

Moorman, S. M., & Macdonald, C. (2013). Medically Complex Home Care and Caregiver Strain. *Gerontologist, 53*(3), 407-417. doi: 10.1093/geront/gns067

Morris, L. (2009). Quits and job changes among home care workers in Maine: the role of wages, hours, and benefits. *Gerontologist, 49*(5), 635-650. doi: 10.1093/geront/gnp071

Mukamel, D. B., Fortinsky, R. H., White, A., Harrington, C., White, L. M., & Ngo-Metzger, Q. (2014). The policy implications of the cost structure of home health agencies. *Medicare Medicaid Res Rev, 4*(1). doi: 10.5600/mmrr2014-004-01-a03

Muntaner, C., Chung, H., Solar, O., Santana, V., Castedo, A., & Benach, J. (2010). A macro-level model of employment relations and health inequalities. *International Journal of Health Services,* 40(2), 215-221.

Muntaner, C., Solar, O., Vanroelen, C., Miguel Martinez, J., Vergara, M., Santana, V., Castedo, A., Kim, I.H., Benach, J., EMCONET Network. 2010. Unemployment, informal work, precarious employment, child labor, slavery, and health inequalities: pathways and mechanisms. *International Journal of Health Services*, 40(2), 281-295.

Murkofsky, R. L., & Alston, K. (2009). The past, present, and future of skilled home health agency care. *Clin Geriatr Med, 25*(1), 1-17, v. doi: 10.1016/j.cger.2008.11.006

National Employment Law Project. (2013). Two Million Unemployed Lose Federal Jobless Aid. http://www.nelp.org/page/-/UI/2013/Issue-Brief-Two-Million-Unemployed-Lose-Federal-Jobless-Aid-Shut-Down.pdf?nocdn=1

National Employment Law Project. (2014). UnBalanced Recovery. http://nelp.org/publication/an-unbalanced-recovery-real-wage-and-job-growth-trends/

Neysmith, S. M., & Aronson, J. (1997). Working conditions in home care: negotiating race and class boundaries in gendered work. *Int J Health Serv, 27*(3), 479-499.

New York State Department of Labor. Minimum Wage. https://www.labor.ny.gov/workerprotection/laborstandards/workprot/minwage.shtm. Retrieved March 27, 2017.

Nugent, L. S. (2007). Can't they get anything better? Home support workers call for change. *Home Health Care Serv Q, 26*(2), 21-39. doi: 10.1300/J027v26n02_02

Ochsner, Leana, & Applebaum. (2009). Improving Direct Carework: Integrating Theory, Research and Practice. Alfred P. Sloan Foundation White Paper.

Panikkar, B., Woodin, M., Brugge, D., Hyatt, R., Gute, M., and Community Partners of the Somerville Community Immigrant Worker Project. (2013). Characterizing the low-wage immigrant workforce: A comparative analysis of the health disparities among selected occupations in

Somerville, Massachusetts. *American Journal of Industrial Medicine*, Article first published online: 10 JUL 2013 DOI: 10.1002/ajim.22181.

Parsons, K. S., Galinsky, T. L., & Waters, T. (2006). Suggestions for preventing musculoskeletal disorders in home healthcare workers. Part 1: lift and transfer assistance for partially weight-bearing home care patients. *Home Healthc Nurse, 24*(3), 158-164; quiz 165-156.

Pearlin, L. I., Schieman, S., Fazio, E. M., & Meersman, S. C. (2005). Stress, Health, and the Life Course: Some Conceptual Perspectives. *Journal of Health and Social Behavior*, 46(2), 205-219. doi: 10.1177/002214650504600206

Peter, R., Siegrist, J., Hallqvist, J., Reuterwall, C., Theorell, T., & Group, T. S. (2002). Psychosocial work environment and myocardial infarction: Improving risk estimation by combining two complimentary job stress models in the SHEEP study. Journal of Epidemiology and Community Health , 294 - 300.

Picketty, Thomas, & Emmanuel Saez. (2003). Income Inequality in the Unites States, 1913-1998. *Quarterly Journal of Economics* 118, no. 1:1-39.

Pinquart, M., & Sorensen, S. (2007). Correlates of physical health of informal caregivers: a meta-analysis. *J Gerontol B Psychol Sci Soc Sci, 62*(2), P126-137.

Pitsenberger, D. J. (2006). Juggling work and elder caregiving: work-life balance for aging American workers. *Aaohn j, 54*(4), 181-185; quiz 186-187.

Plumer, Brad. (2013, February 28). How the recession turned middle-class jobs into low-wage jobs. Washington Post.

Pohjonen, T. (2001). Age-related physical fitness and the predictive values of fitness tests for work ability in home care work. *J Occup Environ Med, 43*(8), 723-730.

Pohjonen, T., & Ranta, R. (2001). Effects of worksite physical exercise intervention on physical fitness, perceived health status, and work ability among home care workers: five-year follow-up. *Prev Med, 32*(6), 465-475. doi: 10.1006/pmed.2001.0837

Poo, Aijen, & Conrad, A. (2015). *The age of dignity: preparing for the elder boom in a changing America*. New York: The New Press.

Prager, S. B. (1996). The vagaries of home health care: a critical review of the literature. *J Long Term Home Health Care, 15*(1), 19-29.

Probst, J. C., Baek, J. D., & Laditka, S. B. (2009). Characteristics and recruitment paths of certified nursing assistants in rural and urban nursing homes. *J Rural Health, 25*(3), 267-275. doi: 10.1111/j.1748-0361.2009.00229.x

Purser, G. (2014). Immigrant Women Workers in the Neoliberal Age ed. by Nilda Flores-González et al.(review). *Labour/Le Travail, 73*(1), 382-384.

Purser, Gretchen. (2009). "The Dignity of Job-Seeking Men: Boundary Work among Immigrant Day Laborers." *Journal of Contemporary Ethnography* 38(1): 117-39.

Quick, J. (1999). Occupational health psychology: Historical roots and future directions. Health Psychology , 82 - 88.

Quinn, M., Markkanen, P., Galligan, C., Sama, S., Kriebel, D., Gore, R., . . . Sun, C. (2014). 0317 quantifying hazardous occupational exposures and injuries in home care: results from the safe home care survey. *Occup Environ Med, 71 Suppl 1*, A39. doi: 10.1136/oemed-2014-102362.120

Rakovski, C., & Price-Glynn, K. (2012). Intersectional Identities and Worker Experiences in Home Health Care: The National Home Health Aide Survey *Issues in Health and Health Care Related to Race/Ethnicity, Immigration, SES and Gender* (pp. 261-280): Emerald Group Publishing Limited.

Riordan, E. (2011). Where the Heart Is: Amending the Fair Labor Standards Act To Provide Wage and Overtime Pay Protection to Agency-Employed Home Health Aides. . *John's L. Rev., 85*, 837

Robinson, J., Clements, K., & Land, C. (2003). Workplace stress among psychiatric nurses: Prevalence, Distribution, Correlates and Predictors. Journal of Psychosocial Nursing and Mental Health Service, 32 - 41.

Rodat, C. & Cook, A. (2016) *A Public Advocate for New York's Home Care Workers: A New Role to Strengthen the Workforce*. Paraprofessional Healthcare Institute, International. Bronx, NY.

Rosen, J., Stiehl, E., Mittal, V. & Leana, C. (2011) Stayers, leavers, and switchers among certified nursing aides: A longitudinal investigation of staff reduction and turnover. The Gerontologist, 51: 597-609.

Rugulies, R., & Krause, N. (2008). Effort–reward imbalance and incidence of low back and neck injuries in San Francisco transit operators. Occupational Environmental Medicine, 525 - 533.

Rugulies, R., Bültmann, U., Aust, B., & Burr, H. (2005). Psychosocial work environment and incidence of severe depressive symptoms: prospective findings from a 5-year follow-up of the Danish work environment cohort study. *American Journal of Epidemiology*, 877 - 887.

Rugulies, R., Bültmann, U., Aust, B., & Burr, H. (2005). Psychosocial work environment and incidence of severe depressive symptoms: prospective findings from a 5-year follow-up of the Danish work environment cohort study. American Journal of Epidemiology, 877 - 887.

SAS Institute, Inc. (2013). SAS/STAT(R) 9.4 User's Guide, Second Edition. Cary, NC: SAS Institute Inc.

SAS Institute Inc. (2015). *SAS/STAT® 14.1 User's Guide*. Cary, NC: SAS Institute Inc.

Sauter, S., & Murphy, L. (2005). Approaches to Job Stress in the United States. In A. Rossi, P. Perrewé, & S. Sauter, Stress and Quality of Working Life: Current Perspectives in Occupational Health (pp. 183 - 197). Greenwich, CT : IAP.

Sauter, S., Murphy, L., & Hurrell, J. (1990). Prevention of work related psychological disorders: A national strategy proposed by the National Institute of Occupational Health and Safety (NIOSH). American Psychologist, 1146 - 1158.

Schieman, S., Milkie, M. A., & Glavin, P. (2009). When work interferes with life: Work-nonwork interference and the influence of work-related demands and resources. American Sociological Review, 74(6), 966-988. doi: 10.1177/000312240907400606

Schnall, P., Dobson, M., Landsbergis, P. (2016) Globalization, Work, and Cardiovascular Disease. *Int J Health Serv*, 46(4):656-92. doi: 10.1177/0020731416664687.

Schnall, P., Schwartz, J., Landsbergis, P., Warren, K., & Pickering, T. (1998). A longitudinal study of job strain and ambulatory blood pressure: results from a three-year follow up. Psychosomatic Medicine, 697 - 706.

Schneider, U., Trukeschitz, B., Muhlmann, R., & Ponocny, I. (2013). "Do I stay or do I go?"--job change and labor market exit intentions of employees providing informal care to older adults. *Health Econ, 22*(10), 1230-1249. doi: 10.1002/hec.2880

Selye, H. (1937). The Significance of the Adrenals for Adaptation . Science, 247 - 248.

Sembajwe, G., Tveito, T. H., Hopcia, K., Kenwood, C., O'Day, E. T., Stoddard, A. M., . . . Sorensen, G. (2013). Psychosocial Stress and Multi-site Musculoskeletal Pain A Cross-sectional Survey of Patient Care Workers. *Workplace Health & Safety, 61*(3), 117-125. doi: 10.3928/21650799-20130226-01

Shapiro, D., Jamner, L., Goldstein, I., & Delfino, R. (2001). Striking a chord: Moods, blood pressure, and heart rate in everyday life. *Psychophysiology*, 197 - 204.

Siegrist, J. (2000). A theory of occupational stress. In J. Dunham, *Stress in the Workplace: Past, Present, and Future* (pp. 63 - 66). London: Whurr Publishers.

Siegrist, J. (2010). Effort-reward imbalance at work and cardiovascular diseases. *International Journal of Occupational Medicine and Environmental Health* , 1 - 7.

Siegrist, J., & Klein, D. (1990). Occupational stress and cardiovascular reactivity in blue-collar workers. Work & Stress, 295 - 304.

Sitzman & Leiss, J. K. (2009). Documentation of incidental factors affecting the home healthcare work environment. *Home Healthc Nurse, 27*(9), 516-521. doi: 10.1097/01.NHH.0000361921.20388.5b

Smith, L., Roman, A., Dollard, M., Winefield, A., & Siegrist, J. (2005). Effort-reward imbalance at work: The effects of work stress on anger and cardiovascular disease symptoms in a community sample. Stress and Health: Journal of the International Society for the Investigation of Stress, 113 - 128.

Smith, P. R. (2007). Home Sweet Home-Workplace Casualties of Consumer-Directed Home Care for the Elderly. *Notre Dame JL Ethics & Pub. Pol'y, 21,* 537.

Smith, P. R. (2013). Who Will Care for the Elderly: The Future of Home Care. *Buff. L. Rev., 61*, 323.

Smyth, J., Zawadzki, M., & Gerin, W. (2013). Stress and disease: A structural and functional analysis. Social and Personality Psychology Compass, 7(4), 217-227. doi: 10.1111/spc3.12020

Smyth, J. (2016) Stress at work: Differential experiences of high versus low SES workers.Soc Sci Med,156:125-33. doi: 10.1016/j.socscimed.2016.03.010. Epub 2016 Mar 17.

Squillace, M. R., Remsburg, R. E., Harris-Kojetin, L. D., Bercovitz, A., Rosenoff, E., & Han, B. (2009). The National Nursing Assistant Survey: improving the evidence base for policy initiatives to strengthen the certified nursing assistant workforce. *Gerontologist, 49*(2), 185-197. doi: 10.1093/geront/gnp024

Stacey, C. L. (2005). Finding dignity in dirty work: the constraints and rewards of low-wage home care labour. *Sociol Health Illn, 27*(6), 831-854. doi: 10.1111/j.1467-9566.2005.00476.x

Stacey, C. L. (2011). The Caring Self: The Work Experiences of Home Care Aides. *Ageing and Society, 32*(4), 722-724. doi: http://dx.doi.org/10.1017/S0144686X11001292

Statistics Solutions (2014). Conduct and Interpret a Multinomial Logistic Regression. http://www.statisticssolutions.com/mlr/, accessed March 27, 2017.

Steptoe, A., Siegrist, J., Kirschbaum, C., & Marmot, M. (2004). Effort-reward imbalance, overcommitment, and measures of cortisol and blood pressure over the working day. *Psychosomatic Medicine*, 323 - 329.

Stone, R. I. (2004). The direct care worker: the third rail of home care policy. *Annu Rev Public Health, 25*, 521-537. doi: 10.1146/annurev.publhealth.25.102802.124343

Stone, R. I., & Bryant, N. (2012). The impact of health care reform on the workforce caring for older adults. *J Aging Soc Policy, 24*(2), 188-205. doi: 10.1080/08959420.2012.659144

Stone, R. I., & Yamada, Y. (1998). Ethics and the frontline long-term care worker: a challenge for the 21st century. *Generations, 22*(3), 45-51.

Stone, R., & Harahan, M. F. (2010). Improving The Long-Term Care Workforce Serving Older Adults. *Health Affairs, 29*(1), 109-115. doi: http://dx.doi.org/10.1377/hlthaff.2009.0554

Stone, R., Sutton, J. P., Bryant, N., Adams, A., & Squillace, M. (2013). The home health workforce: a distinction between worker categories. *Home Health Care Serv Q, 32*(4), 218-233.

Stonerock, C. (1997). Home health aides: home care's "endangered species". *Home Care Provid, 2*(1), 15-17.

Sudore, R. L., & Covinsky, K. E. (2011). Respecting elders by respecting their paid caregivers. *J Gen Intern Med, 26*(5), 464-465. doi: 10.1007/s11606-011-1667-z

Tausig, M., & Fenwick, R. (2011). *Work and Mental Health in Social Context*. New York Springer

Taylor, S. (2006). *Health Psychology*. New York : McGraw-Hill Companies, Inc.

Theorell, T., & Karasek, R. (1996). Current issues relating to psychosocial job strain and cardiovascular disease research. *Journal of Occupational Health Psychology*, 9 - 26.

Thoits, P. A. (2010). Stress and health: Major findings and policy implications. *Journal of Health and Social Behavior*, 51(1, Suppl), S41-S53. doi: 10.1177/0022146510383499

Trukeschitz, B., Schneider, U., Mühlmann, R., & Ponocny, I. (2013). Informal Eldercare and Work-Related Strain. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 68*(2), 257-267. doi: 10.1093/geronb/gbs101

Tufte, P., Clausen, T., & Nabe-Nielsen, K. (2012). Client-related work tasks and meaning of work: results from a longitudinal study among eldercare workers in Denmark. *Int Arch Occup Environ Health, 85*(5), 467-472. doi: 10.1007/s00420-011-0692-x

Turner, R. J., Wheaton, B., & Lloyd, D. A. (1995). The epidemiology of social stress. American Sociological Review, 60(1), 104-125. doi: 10.2307/2096348

U.S. Department of Labor, Wages and Hours Division. (2014). Home Care for Workers. https://www.dol.gov/whd/homecare/workers.htm. Accessed online March 27, 2017.

U.S. Department of Labor. Home Care Agencies: What are the requirements? https://www.dol.gov/whd/homecare/agencies-what-are-requirements.htm. Retrieved March 27, 2017.

Umberson, D., Williams, K., Thomas, P. A., Liu, H., & Thomeer, M. B. (2014). Race, gender, and chains of disadvantage: childhood adversity, social relationships, and health. J Health Soc Behav, 55(1), 20-38. doi: 10.1177/0022146514521426

Väänänen, A., Anttila, E., Turtiainen, J., & Varje, P. (2012). Formulation of work stress in 1960–2000: Analysis of scientific works from the perspective of historical sociology. Social Science & Medicine, 75(5), 784-794. doi: 10.1016/j.socscimed.2012.04.014

Van Arsdale, D. (2008). Recasualization of blue collar workers: Industrial temporary help work's impact on the working class. *Labor Studies in Working Class History of the Americas* 5(1):75–99. Duke University Press.

Van Arsdale, D. (2013). The Temporary Work Revolution: The shift from jobs that solve poverty to jobs that make poverty. *WorkingUSA: The Journal of Labor and Society*. 16, 87–112.

Van De Weerdt, C., & Baratta, R. (2012). New working conditions and consequences on activity of home healthcare workers. *Work, 41 Suppl 1*, 1-4. doi: 10.3233/wor-2012-0127-1

Van Houtven, C. H., Coe, N. B., & Skira, M. M. (2013). The effect of informal care on work and wages. *Journal of Health Economics*, *32*(1), 240-252. doi: http://dx.doi.org/10.1016/j.jhealeco.2012.10.006

Vanroelen, C., Levecque, K., Moors, G., Gadeyne, S., & Louckx, F. (2009). The structuring of occupational stressors in a Post-Fordist work environment. Moving beyond traditional accounts of demand, control and support. Social Science & Medicine, 68(6), 1082-1090. doi: 10.1016/j.socscimed.2009.01.012

Virtanen, M., Ferrie, J. E., Batty, G. D., Elovainio, M., Jokela, M., Vahtera, J., . . . Kivimaki, M. (2014). Socioeconomic and Psychosocial Adversity in Midlife and Depressive Symptoms Post Retirement: A 21-year Follow-up of the Whitehall II Study. *Am J Geriatr Psychiatry*.

Vrijkotte, D., Doomen, L., & van Geus, E. (2000). Effect of work stress on ambulatory blood pressure, heart rate and heart rate variability. *Hypertension*, 880 - 886.

Weil, David. (2014). The Fissured Workplace: Why work became so bad for so many and what can be done to improve it. Harvard University Press. Cambridge MA.

Western, B., & Rosenfeld, J. (2011). Unions, Norms, and the Rise in U.S. Wage Inequality. American Sociological Review, 76(4), 513-537.

Wickrama, K. A. S., Lorenz, F. O., Conger, R. D., Matthews, L., & Elder, G. H. (1997). Linking occupational conditions to physical health through marital, social, and intrapersonal processes. *Journal of Health and Social Behavior*, 38(4), 363-375. doi: 10.2307/2955431

Wilkinson R.G.(1996). Unhealthy Societies: The Afflictions of Inequality. Routledge. London.

Williams, D.R., & Sternthal, M. (2010). Understanding racial-ethnic disparities in health: Sociological contributions. Journal of Health and Social Behavior, 51(1, Suppl), S15-S27.

Williams, J. A. R. and L. Rosenstock (2015). "Squeezing Blood From a Stone: How Income Inequality Affects the Health of the American Workforce." *American Journal of Public Health*, 105(4): 616-621.

Wipfli, B., Olson, R., Wright, R. R., Garrigues, L., & Lees, J. (2012). Characterizing hazards and injuries among home care workers. *Home Healthc Nurse, 30*(7), 387-393.

Yamada, Y. (2002). Profile of Home Care Aides, Nursing Home Aides, and Hospital Aides: Historical Changes and Data Recommendations. *Gerontologist, 42*(2), 199-206. doi: 10.1093/geront/42.2.199

Young, M., & Schieman, S. (2012). When hard times take a toll: The distressing consequences of economic hardship and life events within the family-work interface. Journal of Health and Social Behavior, 53(1), 84-98. doi: 10.1177/0022146511419204

Zoeckler, J., Lax, M., & Zanoni, J. (2015). *Healthy Work in Syracuse: Conversations with Low-Wage Workers.* Occupational Health Clinical Center. Upstate Medical University. Syracuse, NY.

**CURRICULUM VITAE**

# JEANETTE M. ZOECKLER

## PROFESSIONAL PREPARATION

| | | | |
|---|---|---|---|
| Syracuse University | Social Science | PhD Candidate (ABD) | |
| SUNY Upstate Medical University & Syracuse University (joint program) | Public Health | M.P.H. | 2011 |
| Syracuse University | Psychology | B. A. | 2010 |

## PEER REVIEWED PUBLICATIONS

Landsbergis, P., Zoeckler, J., Rivera, B., Alexander, D., Bahruth, A., Hord, W. (2016). Organizational-level interventions to reduce sources of K-12 teachers' occupational stress. In McIntyre, T., McIntyre, S., & Francis, D. (eds), Stress in Educators: An occupational health perspective.

Zoeckler, J. & Silverstein, M. (2016). Work and Retirement. In Harrington Meyer, M. & Daniele, E. *Gerontology: Changes, Challenges and Solutions.* Santa Barbara, CA: Praeger Publishing.

Zoeckler, J., Cibula, D., Morley, C., Lax, M. (2013). Predictors for Return to Work for Those with Occupational Respiratory Disease: Clinical and Structural Factors. *American Journal of Industrial Medicine, 56:1371-1382.*

## REPORTS

Zoeckler, J. Lax M. Zanoni, J. (2017). *Mapping the Landscape of Low-Wage Work and Health in Syracuse… Continuing the Conversations.* Occupational Health Clinical Center. Upstate Medical University, Syracuse, NY.

Zoeckler, J., Lax, M., Zanoni, J. (2015). *Healthy Work in Syracuse: Conversations with Low-Wage Workers.* Occupational Health Clinical Center. Upstate Medical University. Syracuse, NY.

Zoeckler, J., Lax, M., Gonos, G., Mangino, M., Hart, G., Goodness, D. (2014). *Low-Wage Work in Syracuse*. Occupational Health Clinical Center. Upstate Medical University. Syracuse, NY.

## PRESENTATIONS

Zoeckler, J. *Occupational Stress and Health Among Home Health Care Workers*. International Association of Gerontology and Geriatrics World Congress. July 2017. San Francisco.

Zoeckler, J. *Occupational Stress among Home Health Care Workers: Integrating Worker and Agency-Level Factors*. Global Carework Network Summit. June 2017. Boston.

Zoeckler, J., Lax, M., Zanoni, J. *Mapping the Landscape of Low-Wage Work: MORE Conversations with Low-Wage Workers.* American Public Health Association Annual Meeting, October 2016, Denver.

Zoeckler, J., Garden, R. Sprout, R., Lax, M. *Developing Narratives in an Occupational Medicine Specialty Clinic: Surprises from the Realms of Tertiary Prevention*. American Public Health Association Annual Meeting. November 2016. Denver.

Zoeckler, J. *Occupational Stress and Health among Home Health Care Workers in Upstate New York.* New York State Society on Aging. October 2016, Ithaca, NY.

Zoeckler, J., Lax, M., Zanoni, J. *Mapping Safety and Health Conditions in Low-Wage Work: Conversations with Workers in Central New York.* American Public Health Association Annual Meeting. November 2015. Chicago.

Lax, M. & Zoeckler, J.*COSH Movement in New York State: Origins, Adaptation and Sustainability.* American Public Health Association Annual Meeting. November 2015. Chicago.

Zoeckler, J. & Zanoni, J. *Popular Education Methods: Putting the Ideals of Paulo Freire into Practice.* National Council on Occupational Safety and Health National Conference. June 2015.

Zoeckler, J. *Low-wage Workers' Health in Central New York.* Diversity Lecure Series. SUNY Upstate Medical University. March 2015.

Zoeckler, J., Lax, M. *Low-Wage Work in Syracuse: Worker Health in the New Economy*. SUNY Upstate Medical University Department of Public Health & Preventive Medicine, Grand Rounds. Nov, 2014. Syracuse, NY.

Zoeckler, J. & Lax M. *Mapping the Low Wage Workforce in Central New York: Working Conditions and Safety and Health.* American Public Health Association Annual Meeting 2014. New Orleans.

Zoeckler, J., Cibula, D., Morley, C., and Lax, M. *Jagged path: An exploration of return to work among workers with occupational respiratory disease.* American Public Health Association Annual Meeting Oral Presentation, November 2013. Boston.

Lax, M., Zoeckler, J., Sherman, E. *Struggling for care: Impact of workers' compensation reform on injured workers access to medical care in New York State.* American Public Health Association Annual Meeting, November 2013. Boston.

Santuzzi, Alecia. Zoeckler, Jeanette. *The social impact of role changes in virtual teams.* 25th Annual Meeting of the Association for Psychological Science, May 2013. Washington, DC.

Zoeckler, Jeanette. Cibula, Donald. Morley, Christopher, and Lax, Michael. *Return To Work Patterns For Those With Occupational Respiratory Disease: Clinical And Structural Factors.* North American Primary Care Research Group Annual Meeting, December 2012. New Orleans.

Zoeckler, Jeanette. Cibula, Donald. Morley, Christopher, and Lax, Michael. *A Qualitative Exploration of Factors Influencing Return to Work for those with Occupational Respiratory*

*Disease.* North American Primary Care Research Group Annual Meeting, December 2012. New Orleans.

Zoeckler, Jeanette. Cibula, Donald. Morley, Christopher, and Lax, Michael. *Return To Work Patterns For Those With Occupational Respiratory Disease: Clinical And Structural Factors.* American Public Health Association Annual Meeting.October 2012. San Francisco.

## TEACHING

Teaching Assistant, Syracuse University, SOC 364/664 Aging and Society, Professor Merril Silverstein, Fall 2015.

Teaching Assistant, Syracuse University, SOC 101 Introduction to Sociology, Professor Jennifer Karas-Montez, Spring 2016.

Guest Lecturer, Syracuse University, "Social Determinants of Occupational Health." Sociology 101. April, 2016.

Guest Lecturer, SUNY Potsdam, "Low-Wage Workers: Qualitative Methods." Occupational Health. Graduate Course, Community Health Program. March 2015.

Guest Lecturer, Syracuse University "Global Aging and Older Immigrants." Sociology 364/664 Aging Society. Syracuse University. November, 2015.

Guest facilitator, CNY MPH Program Core Class - Public Health Practice, MPHP 605 "Occupational Health - Health Effects on Workers Exposed to Diacetyl (and other related chemical flavorings) in the Food Industry 'Popcorn Workers' Lung Disease.'" November 2012, November 2013, November 2014, Environmental Health Class MPHP 600 - February 2016, February 2017

Guest lecturer, CNYMPH Program Class Community Health Program Planning and Evaluation. "Research in Occupational Health at the Occupational Health Clinical Center, Syracuse, NY." October 2013.

## PROFESSIONAL EXPERIENCE

Occupational Health Clinical Center, Syracuse NY
*Medical Director/Professor of Medicine* Michael B. Lax, MD, MPH

*Project Consultant/Project Manager 2011- present*
Implements OHCC mission to advance occupational health research and prevent occupational disease:

- Develops and maintains collaborative, applied occupational health projects including research, outreach, and education in community-based settings
- Assists in the development of journal articles on occupational health and grant proposals for occupational health projects focused on prevention
- Conducts occupational health needs assessments required by NYS Department of Health

## COMMUNITY PRESENTATIONS

Guest Lecturer, Onondaga County Social Services and New York State JobPlus! Program. "Work-Related Stress and Human Service Work." March 2017.

## SERVICE

- Center for Disease Control, National Institute for Occupational Safety and Health, National Occupational Research Agenda, Health Services Sector Council 2016-2107

- SUNY Upstate Medical University CNY MPH Program - Council on Education for Public Health Accreditation Evaluation and Planning Steering Committee 2012 – 2013

- Treasurer, Workers Center of Central New York 2012-2014

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