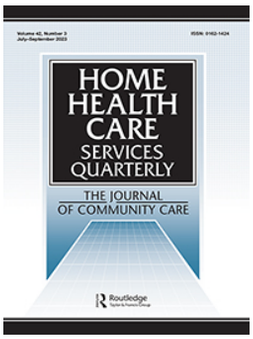

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BRIEF REPORT

How client death impacts home care aides' workforce outcomes: an exploratory analysis of return to work and job retention

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ABSTRACT

Home health aides face a range of stressors that may result in departing the workforce. One stressor that has emerged in multiple qualitative studies as potentially influencing retention is client death. Using 2019 data from a single agency in New York City employing approximately 1700 aides, we used logistic and linear regression to explore case and aide factors associated with workforce outcomes after client death. We found that longer case length (Beta = 0.01, $p < .001$) was associated with longer return to work for aides experiencing client death and longer job tenure (Beta = −0.002, $p = .002$) was associated with shorter return to work ($n = 67$). We found no difference in retention between aides who experienced client death and those who did not (n 216). This analysis suggests the importance of research on the period of time following client death and of offering support to aides after clients die, particularly after longer cases.

KEYWORDS

Caregiving: Work Issues; Community and home care; Long-term care: staff roles/ turnover/staffing pattern

Introduction

As the US population ages and older individuals opt to remain living at home, the demand for a larger and stable home care aide workforce continues to grow (Bureau of Labor Statistics, 2021). Due to a range of challenging working conditions, however, the home care industry has long struggled with aide retention, with turnover estimated at 82% in one of the more recent pre-pandemic surveys (Holly, 2019). The COVID-19 pandemic has exacerbated these issues, creating an unprecedented workforce shortage and urgent calls to improve aides' working conditions and their retention (Tyler, Hunter, Mulmule, & Porter, 2021).

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Multiple kinds of work stress combine to push aides out of this workforce, including low wages and limited benefits, physical strain, safety hazards, and emotional strain from navigating client relationships and clients' social environments at home (Baron, Tsui, & Quinn, 2022; NIOSH, 2010). As a result, the general, physical, and mental health of home care aides as a population is poorer than that of similar low-wage worker populations (Sterling, Li, Cho, Ringel, & Silver, 2021).

Our research focuses on a stressor that has emerged repeatedly across qualitative studies of aides' work stress: client death (Butler, 2017; Delp, Wallace, Geiger-Brown, & Muntaner, 2010; Franzosa, Tsui, Baron, & Bowers, 2019; Muramatsu, Sokas, Lukyanova, & Zanoni, 2019; Zoeckler, 2017). Research has documented the social and emotional impact of client death on home care aides (Boerner, Burack, Jopp, & Mock, 2015; Boerner, Gleason, & Jopp, 2017; Tsui, Franzosa, Cribbs, & Baron, 2019), but so far only qualitative literature describes the impact of client death on aides' workforce outcomes. This literature indicates that the factors influencing whether an aide returns to work after client death and/or how much time s/he takes off is complex. It is a function of the emotional experience of the death (often connected to the depth of the relationship with the client), as well as of aides' need to continue earning a wage and/or their ability to earn money in other ways (Tsui, Franzosa, Cribbs, & Baron, 2019). Despite this complexity, the qualitative literature suggests that the moment of client death might serve as a kind of tipping point in which aides may be more likely to depart the workforce for good, after they experience an accumulation of work stress, the potentially acute emotional impact of client death, a lack of job-based support, and are momentarily separated from work when a case ends (Tsui et al., 2021; Tsui, Franzosa, Cribbs, & Baron, 2019).

In this research, we sought to assess whether client death does have this added ability to reduce retention, beyond the substantial background work stress associated with home care labor. To do this, we looked at the impact of client death on aides' workforce outcomes using agency-based quantitative data. Specifically, we sought to understand: (1) What aide and case features are associated with a longer period out of work and with retention after client death? And (2) Do aides who experienced client death have reduced job retention as compared with aides who did not experience client death? In answering these questions, we aim to provide agencies and other home care stakeholders with data that might contribute to the development of programs to improve aide retention.

Methods

The immense impact of pandemic-related factors on aides' workforce outcomes make these questions challenging to explore quantitatively. Specifically,

we know that dynamics like fear of being exposed to COVID-19 at work and the availability of unprecedented unemployment benefits have influenced job retention and job tenure (Sama et al., 2020; Sterling et al., 2020; Tyler, Hunter, Mulmule, & Porter, 2021) and would likely mask the true effect of client death as a determinant of workforce outcomes in non-pandemic times. For this reason, we turned to agency administrative data from 2019 as a way of examining these questions, with the idea that this period would more accurately represent the typical impact of client death on aides. Data availability for this period, however, was also a challenge in that home care agencies were under unusually heavy demands in 2021 (e.g., to respond to staffing shortages and vaccination requirements) when we were conducting this study and thus working with administrative data systems to provide data for research was difficult for agencies to prioritize. We initially approached three diverse home care agencies in New York City, and due to the issues above, ultimately we were able to collaborate with a single agency.

Participants

This analysis was conducted using a dataset created by Cooperative Home Care Associates (CHCA) drawing on data from 2019. Cooperative Home Care Associates was founded in 1985 as a worker-owned cooperative home care agency and is now one of the largest worker cooperatives in the United States, employing nearly 2000 staff. They operate their own home health aide training program, provide mentoring and other retention supports (Cooperative Home Care Associates [Internet], 2022), and aides are also unionized. Though CHCA has a unique model in which workers at all levels (including aides) help shape organizational operations and programs, not all workers are worker-owners. CHCA invites all employees to purchase a $1,000 ownership share in the company, through a $50 down payment followed by weekly payroll deductions of $3.65. Aides are fully vested after the $50 down payment. At the time of the study, approximately 50% of aides were worker-owners.

The dataset CHCA provided combines information about cases that ended in client death with information about the aides who provided services to those clients. To answer the first research question, we worked with data on all aides employed by CHCA who experienced a single client death in 2019 (n = 78), and with those for whom data existed on length of return to work (n = 67). For the second research question, CHCA selected a random sample of 400 aides with no client death in 2019 from their roster so that we could conduct analyses that compared job retention for aides who did and did not experience client death. This sample size gave us the opportunity to create a matched dataset, where aides who did experience client death (n = 76, after two aides with "other" race-ethnicity were removed) were matched on age and race/ethnicity with aides who did not experience client death in 2019 (n = 138).

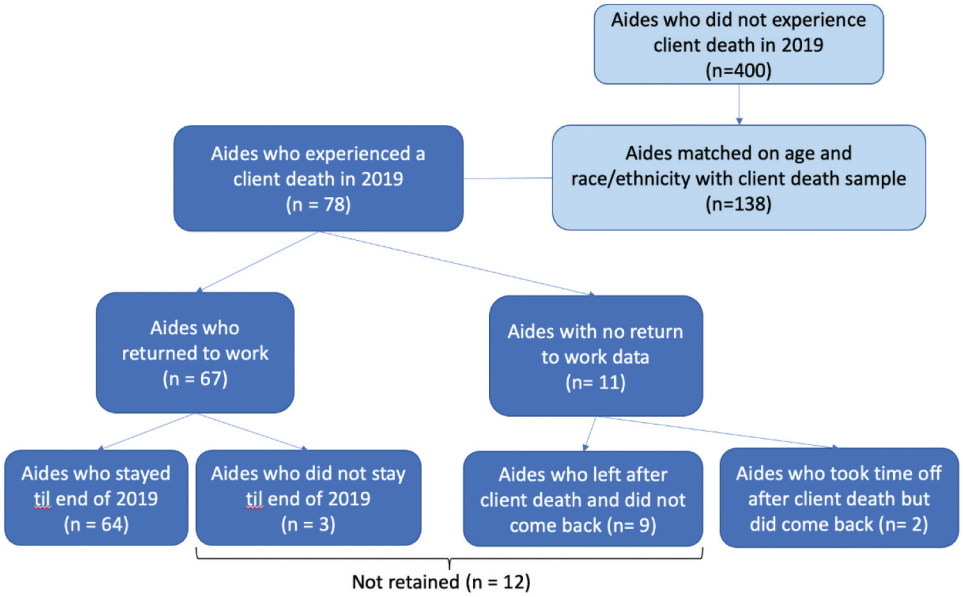

Figure 1. Overview of samples.

Specifically, we conducted 1:2 matching on age (fuzzy matching within 1 year of age) and race ethnicity (exact matching) using SPSS statistical software. An overview of the two samples is provided in Figure 1.

Measures

The agency's administrative data provided limited information on aide characteristics including age (in years on January 1, 2019) and race-ethnicity (which we characterized as Latinx, Black, or other), and information about job tenure (defined as the number of days from when the aide began work at the agency until the end of 2019 or until their departure date during 2019). For the sample of aides who experienced client death, we also received data on the characteristics of the case that ended in client death, including hospice status (defined as "yes" if the client was known to have received hospice services, and "no" if they did not or if the agency did not know whether hospice services were present), case length (defined as the number of days that the aide had worked on the case), and work intensity (defined as the number of days that the aide worked in the two weeks before the case ended).

In terms of outcomes, the agency provided length of return to work for aides who experienced client death (defined as the number of days between the aide's last day on the case and when they began another case at the agency). For all aides, the agency also provided a measure of job retention (defined as whether the aide was still working for the agency on December 31st, 2019).

Statistical analysis

In order to assess factors associated with length of return to work ($n = 67$) and job retention ($n = 78$) for aides experiencing client death, we explored the data by assessing descriptive statistics and associations between variables (based on independent samples t-tests, Chi-squared tests, and Pearson correlations). We then conducted multivariable logistic and linear regression analyses in order to determine adjusted associations of aide demographic and case-specific characteristics with outcomes. For our comparison analysis of the matched samples, we conducted a Chi-squared test for retention. For all analyses, statistical significance was set at $n < .05$.

IRB

The study was approved by the CUNY Graduate School of Public Health & Health Policy Institutional Review Board.

Results

Sample description

In 2019 at CHCA, 78 aides experienced the death of a single client (out of approximately 1700 employed at the agency that year).[1] As Table 1 shows, these aides ranged in age from 26 to 74, with an average age of 50 years. They were majority Latinx (78.2%), 19.2% were Black, and 2.6% neither Latinx nor Black.[2] Aides' job tenure at the agency ranged from 24 days to 8837 days, approximately 24 years. Almost one-third (30.8%) of the aides were working on cases that were known to be receiving hospice services. The length of cases varied widely from 0 (meaning that the aide started on the same day that the client died) to 2361 days, which is almost 6.5 years. The median length for these cases was 151 days, and the median work intensity was 4 days of work on the case within the 2 weeks prior to death. While we do not have return to work data for all aides in the sample, aides for whom we do have data ($n = 67$, 85.9%) returned to work from 0 (same day return to work) to 56 days after the client died, with a median of 6 days away from work after the client died. On the last day of 2019, 84.6% of aides were still working at the agency. Finally, aides in the matched sample who did not experience client death ($n = 138$) were intentionally similar in terms of age (mean = 49.17) and race-ethnicity (81.2% Latinx), and there was no statistically significant difference in mean job tenure across groups (7.26 years in the client death group vs. 6.35 years in the matched sample that did not experience client, p = .241). Notably, among aides who experienced client death and were not retained ($n = 12$, see Figure 1), a majority of these

Table 1. Descriptive statistics for aides experiencing client death.

					Retention status			Return to work length*		
Variable	n	Mean (SD) or n (%)	Median	Range	Retained	Not retained	p-value	<= 6 days	>6 days	p-value
Aide Characteristics										
Age	77	50.22 (11.6)	52.3	26–74	48.0 (14.5)	50.6 (11.0)	0.480	49.79 (10.84)	51.23 (12.386)	0.621
Race/ethnicity	78									
Latinx		61 (78.2%)			54 (84.4%)	7 (58.3%)	0.038**	34 (89.5%)	20 (74.1%)	0.103**
Black		15 (19.2%)			10 (15.6%)	5 (41.7%)		4 (10.5%)	7 (25.9%)	
Other		2 (2.6%)			2 (100%)	0 (0%)		2 (100%)	0 (0%)	
Job tenure (days)	78	2654.82 (1859.2)	2526	24–8837	2709.73 (1884.96)	2352.83 (1755.75)	0.544	3148.05 (2078.72)	2098.78 (1310.48)	0.023
Case-Specific Characteristics										
Hospice	78									
Yes		24 (30.8%)			46 (69.7%)	8 (66.7%)	0.834	25 (62.5%)	20 (74.1%)	0.322
No		54 (69.2%)			20 (30.3%)	4 (33.3%)		15 (37.5%)	7 (25.9%)	
Case length (days)	77	545.08 (686.1)	151	0–2361	516.00 (660.67)	702.58 (824.80)	0.390	320.31 (486.60)	752.89 (780.00)	0.007
Work intensity (days/2 weeks)	78	4.7 (3.3)	4	1–13	4.67 (3.42)	5.00 (2.73)	0.751	4.13 (3.62)	5.30 (3.07)	0.173
Workforce Outcomes										
Return to work length (days)	67	10.06 (11.5)	6	0–56						
Return to work length <= 6 days	67									
Yes		40 (59.7%)								
No		27 (40.3%)								
Retained	78									
Yes		66 (84.6%)								
No		12 (15.4%)								

Note: * Return to work length was categorized at the median (6 days).
**The "other" category for race/ethnicity was not included in these analyses due to small sample size.

Table 2. Linear Regression of Factors Associated with Length of Return to Work for Aides Experiencing Client Death.

	B	95% CI		p-value
Age	0.183	−0.045	0.412	0.114
Race Ethnicity (ref: Black)	4.619	−2.420	11.658	0.194
Hospice	−2.004	−7.696	3.688	0.484
Case Length	0.010	0.006	0.014	<0.001
Work Intensity	0.000	−0.726	0.726	0.999
Job tenure	−0.002	−0.004	−0.001	0.002

Note. R2 adj = 0.345 ($N = 62$, $N < .001$).

aides left after client death and did not come back ($n = 9$, 75.0%). Only three aides (25.0%) left during 2019 at other times.

Analysis of workforce outcomes for aides experiencing client death. Table 2 presents an analysis of variables associated with length of return to work after client death. Note that this analysis is effectively an analysis of aides who did return to work after their clients died, as aides who were missing length of return to work data ($n = 11$) typically did not come back before the end of 2019 and thus were not retained (see Figure 1).

In this analysis, after adjusting for every other variable in the model, we found that case length and length of return to work were strongly correlated (Beta = 0.01, $p < .001$). For each four-month increase in case length, this model indicates that length of return to work will be extended by approximately one day (on average). Additionally, after adjusting for every other variable in the model, job tenure was significantly and negatively correlated with length of return to work (Beta = −0.002, $p = .002$). For every 10 years of job tenure, length of return to work is reduced by a very small margin (0.02 days).

To make sure that these findings were not biased by differences between those who had return to work data ($n = 67$) and those who did not ($n = 11$), we compared these groups on all variables and found no statistically significant differences (data not shown). Consistent with our findings about the positive association between case length and length of return to work, mean case length for those without return to work data – i.e., who left after client death and did not come back – was longer than for those who did have return to work data, though this was not statistically significant (832 vs. 497 days, $n = .135$).

Finally, when we examined the association of aide and case characteristics in the client death sample with job retention at the end of 2019 ($n = 78$), we found no statistically significant associations (data not shown).

Analysis of retention comparing aides who experienced client death with aides who did not. When comparing aides experiencing client death with those who did not, contrary to our hypothesis, we found that retention was almost identical across samples (17.1% not retained in the client death sample with "other" race ethnicity removed vs. 17.4% in the no client death sample, $p = .958$).

Discussion

In this study, we used administrative data from one home care agency to assess the association of aide and case characteristics with aides' workforce outcomes in situations involving client death. In qualitative studies, aides have repeatedly flagged client death as a problematic and complex work stressor with an effect on their workforce outcomes (Boerner, Burack, Jopp, & Mock, 2015; Boerner, Gleason, & Jopp, 2017; Tsui, Franzosa, Cribbs, & Baron, 2019). Our exploratory research adds three initial findings to what is known about the impact of client death on aides, which we will contextualize and discuss below. In doing so, we highlight the points of intervention for which these findings lend support and make recommendations for further research.

First, we learned that almost 5% of aides in this sample (80 out of 1700) experienced client death in a given year.[3] To place this in the context of other emotional stressors, one study reported that 22% of aides experienced at least one incident of verbal abuse on the job in the previous year and that 7.4% of aides experienced at least one incident of physical abuse on the job in the previous year (Karlsson et al., 2019). While client death is a multivalent stressor and highly distinct from abuse, together these prevalence data offer a picture of some of the more acute emotional stressors on the job for aides. To our knowledge, the frequency of client death as a work stressor has been unmeasured in the scientific literature until now. Beginning to document this at different agencies is an important step toward understanding its prevalence. There may be a number of factors that shape the percentage of aides who experience a client death at a given agency, including the number of hospice cases. Individual agencies may want to track the prevalence of client death year by year so they can best design responses.

Second, we found that retention was higher in these samples than is typically reported for home care aides, with only 15–17% turnover across the samples of aides who did and did not experience client death. As a unionized worker-owned cooperative, CHCA likely offers better general support to aides than typical home care agencies, though during the year under study, they did not have targeted client death support efforts in place. That aides who experienced client death in 2019 had very similar retention to those who did not reminds us that – even prior to the pandemic – there were many variables influencing job retention (Banijamali, Hagopian, & Jacoby, 2012; Butler, 2017; Butler, Brennan-Ing, Wardamasky, & Ashley, 2014; Faul et al., 2010; Gleason, Miller, & Meeks, 2021). In this context, client death was not a sufficiently strong factor to produce elevated turnover in aides experiencing a single client death in a given year. We do observe, however, that among aides who experienced a client death and were not retained, 75% appeared to leave the agency immediately after client death. To us, this suggests the likely role of client death in these departures, and therefore the importance of

attention to aides who experience client death and who may otherwise be at risk of not being retained. Some of the factors associated with reduced retention in the literature include younger age, not being the primary wage earner in the household, higher household income, as well as lower intrinsic satisfaction, lower sense of control over work, and lower wages (Banijamali, Hagopian, & Jacoby, 2012; Faul et al., 2010; Gleason, Miller, & Meeks, 2021). Aides with higher levels of education have been found to be more likely to be retained in some studies (Faul et al., 2010) and less likely to be retained in others (Banijamali, Hagopian, & Jacoby, 2012). Given the small sample size and limited number of variables available, we view our analysis as a preliminary step toward assessing the true contribution of client death to aide retention.

Third, we looked closely at factors associated with length of return to work. Most notable in these findings is that longer case length ending in client death was associated with a longer period before the aide returned to work. Our interpretation of this finding derives from the literature that richly documents the centrality of relationships between aides and clients (Franzosa, Tsui, & Baron, 2018; Stacey, 2011), and which shows that the loss of a longer relationship through client death may require more emotional processing and recovery time (Tsui, Franzosa, Cribbs, & Baron, 2019). Ultimately though, this finding raises the question of whether a longer period of time off from work after a client's death is protective in terms of retention, or whether a longer period of time off may be a prelude to departure. Our analysis showed no statistically significant effect of length of return to work on retention. However, it is important to note that most of the people in our sample who were not retained were not included in this analysis because they lacked return to work data (see Figure 1, $n = 11$). This group also had longer case lengths than those with return to work data, which underscores the potential importance of case length as a marker of poorer workforce outcomes. Qualitative research suggests both that recovery and restoration during the period out of work can sometimes be helpful to continue in the job longer-term and that a longer period out of work may be a time when aides grow more distanced from the work, unable to find support for their grief or distress, and/or work other jobs to afford to take time away from home care (Tsui, Franzosa, Cribbs, & Baron, 2019). In the current dataset, we do not have information about how aides spent these periods of time out of work. Future research with a prospective design might explore whether aides are working during these periods or not, and what factors may influence retention during this period.

Practically speaking, these findings suggest that home care agencies may want to target retention supports to aides who have lost longer-term clients and to those who experience client death while being at risk of turnover for other reasons as well. Though systematic support after client death appears to be rare in home care agencies currently (Tsui, 2021), small steps such as

training supervisors, coordinators, and or schedulers to provide emotional support to aides – or strategic subsets of aides – could produce measurable improvements in terms of retention and aide health and well-being (Gleason, Boerner, & Barooah, 2016; Gleason, Miller, & Meeks, 2021; Tsui et al., 2021). Existing research has also recommended additional training around end-of-life issues, paid time off following client death, and more responsive case reassignment practices (Barooah, Boerner, Gleason, & van, 2019; Gleason, Boerner, & Barooah, 2016; Tsui et al., 2021). Our findings suggest new possibilities for intervention, like enhanced agency efforts to remain connected with and supportive of aides when they are taking time off from work following a client death in order to ensure that that period is restorative and allows them to return to home care work having had the ability to grieve (if needed), rest, and prepare for the next case. Such efforts might convert periods out of work into extended job tenure.

There are a number of limitations to this research. First, only a single agency was able to provide the data we needed to conduct this analysis. This agency is a unionized worker-owned cooperative, and thus aides may have a different level of investment in the work and the support provided to them is greater than at most agencies. For generalizable findings, research in a sample drawing from multiple agencies is needed, ideally over multiple years, and prospectively. Second, the data used in this analysis were not collected for research purposes, and thus many variables were missing that we would ideally be able to measure in order to accurately model these outcomes (e.g., number of client deaths experienced, household income, job satisfaction, primary wage earner status, job control and support, perceived stress, etc.) (Banijamali, Hagopian, & Jacoby, 2012; Faul et al., 2010; Gleason, Miller, & Meeks, 2021; Tsui, Franzosa, Cribbs, & Baron, 2019). Notably, aides in New York City often work for multiple agencies simultaneously, so without data on CHCA aides' possible experiences at other agencies, we do not have a complete picture of aides' workforce outcomes (i.e., if an aide is not retained at CHCA, they may continue working in home care at another agency). Though there are significant limitations to these data, we believe that this analysis provides a useful view of the ways in which quantitative data may and may not align with qualitative research on this topic, and of how future studies might be designed.

Conclusion

Our research offers a window into the prevalence of client death as a stressor, indicates that retention did not differ across aides who did and did not experience client death, and demonstrates that the length of a case ending in client death was associated with a longer period out of work following client death. While these analyses are constrained in their generalizability, they gesture at the potential importance of the period following client death as an

opportunity for enhancing retention. Our exploratory study also indicates the need for continued research to understand the prevalence of client death, its contribution to aide turnover, and role of length of return to work in retention. Improving retention among aides remains a critical goal for home care agencies and policymakers, given long-standing and increasingly urgent staffing shortages for this essential workforce.

Notes

1. Note that two additional aides in our sample experienced two deaths each, and the dataset included six client deaths where aides' employee IDs and demographic information were missing. We removed these from our sample since multiple client death experiences by a single aide could be correlated, thus requiring a different analytic approach.
2. Note that the "other" category for race-ethnicity was dropped from all subsequent analyses because of small sample size.
3. Note that we know 80 to be an undercount of aides experiencing client death, given that we removed from the dataset aides whose demographic data were missing.

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Disclosure statement

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References

Banijamali, S., Hagopian, A., Jacoby, D. Why they leave: Turnover among Washington's home care workers [Internet]. SEIU Healthcare 775NW; 2012 Feb. Available from: http://seiu775.org/files/2012/02/Why-They-Leave-Report1.pdf

Baron, S. L., Tsui, E. K., & Quinn, M. M. (2022, Jan). Work as a root cause of home health workers' poor health. *American Journal of Public Health*, *112*(1), 9–11. doi:10.2105/AJPH.2021.306582

Barooah, A., Boerner, K., Gleason, H. P., & van, R. I. (2019, Jan). Immediate aftermath of a client's death: The experience of home health aides. *Home Health Care Services Quarterly*, *38*(1), 14–28. doi:10.1080/01621424.2018.1561586

Boerner, K., Burack, O. R., Jopp, D. S., & Mock, S. E. (2015, Feb). Grief after patient death: Direct care staff in nursing homes and homecare. *Journal of Pain and Symptom Management*, *49*(2), 214–222. doi:10.1016/j.jpainsymman.2014.05.023

Boerner, K., Gleason, H., & Jopp, D. S. (2017, Sep). Burnout after patient death: Challenges for direct care workers. *Journal of Pain and Symptom Management*, *54*(3), 317–325. doi:10.1016/j.jpainsymman.2017.06.006

Butler, S. S. (2017, Nov). Exploring relationships among occupational safety, job turnover, and age among home care aides in maine. *New Solutions: A Journal of Environmental and Occupational Health Policy*, *27*(4), 501–523. doi:10.1177/1048291117739418

Butler, S. S., Brennan-Ing, M., Wardamasky, S., & Ashley, A. (2014, Mar). Determinants of longer job tenure among home care aides: What makes some stay on the job while others leave? *Journal of Applied Gerontology*, *33*(2), 164–188. doi:10.1177/0733464813495958

Cooperative Home Care Associates [Internet]. PHI. [cited 2022 Apr 7]. Available from: http://www.phinational.org/affiliate/cooperative-home-care-associates/

Delp, L., Wallace, S. P., Geiger-Brown, J., & Muntaner, C. (2010, Aug). Job stress and job satisfaction: Home care workers in a consumer-directed model of care. *Health Services Research*, *45*(4), 922–940. doi:10.1111/j.1475-6773.2010.01112.x

Faul, A. C., Schapmire, T. J., D'ambrosio, J., Feaster, D., Oak, C. S., & Farley, A. (2010). Promoting sustainability in frontline home care aides: UnderstandinG factors affecting job retention in the home care workforce. *Home Health Care Management & Practice* [Internet], [cited 2021 Jul 16] *22*(6), 408–416. Available from: doi:10.1177/1084822309348896

Franzosa, E., Tsui, E. K., & Baron, S. (2018). Home health aides' perceptions of quality care: Goals, challenges, and implications for a rapidly changing industry. *New Solutions: A Journal of Environmental and Occupational Health Policy*, *27*(4), 629–647. doi:10.1177/1048291117740818

Franzosa, E., Tsui, E. K., Baron, S., & Bowers, B. J. (2019). "Who's caring for us?": Understanding and addressing the effects of emotional labor on home health aides' well-being. *The Gerontologist*, *59*(6), 1055–1064. doi:10.1093/geront/gny099

Gleason, H. P., Boerner, K., & Barooah, A. (2016, Jul). Supporting home health aides through a client's death: The role of supervisors and coworkers. *Geriatric nursing*, *37*(4), 278–283. doi:10.1016/j.gerinurse.2016.04.001

Gleason, H. P., Miller, E. A., & Meeks, S. (2021, Jun). Maximizing home health aide retention: The impact of control and support on the Job. *The Gerontologist*, *61*(4), 517–529. doi:10.1093/geront/gnab003

Holly, R. (2019). Home care industry turnover reaches all-time high of 82%. *Home Health Care News* [Internet], Available from: https://homehealthcarenews.com/2019/05/home-care-industry-turnover-reaches-all-time-high-of-82/ [cited 2022 Apr 7].

Karlsson, N. D., Markkanen, P. K., Kriebel, D., Gore, R. J., Galligan, C. J., Sama, S. R., Quinn, Margaret M (2019, Jul 1). Home care aides' experiences of verbal abuse: A survey of characteristics and risk factors. *Occupational and Environmental Medicine*, *76*(7), 448. doi:10.1136/oemed-2018-105604

Muramatsu, N., Sokas, R. K., Lukyanova, V. V., & Zanoni, J. (2019). Perceived stress and health among home care aides: Caring for older clients in a medicaid-funded home care program. *Journal of Health Care for the Poor and Underserved*, *30*(2), 721–738. doi:10.1353/hpu.2019.0052

NIOSH. (2010, Jan). *NIOSH Hazard Review: Occupational Hazards in Home Healthcare*. Report No.: 2010–125. 2010125. Cincinnati, OH: Department of Health & Human

Services, Centers for Disease Control & Prevention. [Internet]. Available from: https://www.cdc.gov/niosh/docs/2010-125/pdfs/2010-125.pdf]

Sama, S. R., Quinn, M. M., Galligan, C. J., Karlsson, N. D., Gore, R. J., Kriebel, D., Prentice, Julia C., Osei-Poku, G, Carter, Charles N., Markkanen, Pia Lindberg, John E. (2020, Dec 11). Impacts of the COVID-19 pandemic on home health and home care agency managers, clients, and aides: A cross-sectional survey, March to June, 2020. *Home Health Care Management & Practice*, *33*(2), 125–129. doi:10.1177/1084822320980415

Stacey, C. L. (2011). The caring self: the work experiences of home care aides. In *(The culture and politics of health care work)* (p. 216). Ithaca, NY: Cornell University Press.

Sterling, M. R., Li, J., Cho, J., Ringel, J. B., & Silver, S. R. (2021). Prevalence and predictors of home health care workers' general, physical, and mental health: Findings from the 2014–2018 behavioral risk factor surveillance system. *American Journal of Public Health*, *111*(12), 2239–2250. In press doi:10.2105/AJPH.2021.306512

Sterling, M. R., Tseng, E., Poon, A., Cho, J., Avgar, A. C., Kern, L. M., Ankuda, Claire K., Dell, N. (2020, Aug 4). Experiences of home health care workers in New York City during the Coronavirus disease 2019 pandemic: A qualitative analysis. *JAMA internal medicine*, *180*(11), 1453. doi:10.1001/jamainternmed.2020.3930

Tsui, E. K. (2021, Jan). Interventions to reduce the impact of client death on home care aides: Employers' perspectives. *Journal of Applied Gerontology*, *41*(2), 332–340. doi:10.1177/0733464821989859

Tsui, E. K., Franzosa, E., Cribbs, K. A., & Baron, S. (2019). Home care workers' experiences of client death and disenfranchised Grief. *Qualitative Health Research*, *29*(3), 382–392. doi:10.1177/1049732318800461

Tsui, E. K., LaMonica, M., Hyder, M., Landsbergis, P., Zelnick, J., & Baron, S. (2021, Dec). Expanding the conceptualization of support in low-wage carework: The case of home care aides and client death. *International Journal of Environmental Research and Public Health*, *19*(1), 367. doi:10.3390/ijerph19010367

Tyler, D., Hunter, M., Mulmule, N., & Porter, K. (2021, May). *COVID-19 Intensifies Home Care Workforce Challenges*. [Internet]. Washington, D.C: US Department of Health and Human Services. [cited 2021 Sep 7]. Available from: https://aspe.hhs.gov/reports/covid-19-intensifies-home-care-workforce-challenges

U.S. Bureau of Labor Statistics. Occupational Outlook Handbook: Home Health and Personal Care Aides [Internet]. 2021 [cited 2022 Apr 7]. Available from: https://www.bls.gov/ooh/healthcare/home-health-aides-and-personal-care-aides.htm

Zoeckler, J. M. (2017, Nov). Occupational stress among home healthcare Workers: Integrating worker and agency-level factors. *New Solutions: A Journal of Environmental and Occupational Health Policy*, *27*(4), 524–542. doi:10.1177/1048291117742678