

## **Factors Affecting Job Retention among Home Caregivers: Findings from Survey and Social Network Analysis**

Jiunn-Jian Li<sup>1</sup> , Yu-Hsien Chen<sup>2\*</sup>

### **Abstract**

This study aimed to investigate the factors affecting job retention among home caregivers, including job satisfaction, job stress, burnout, and social networks. Data were collected through questionnaire surveys from 214 home caregivers and AI-based analysis in the Eastern Taiwan. Results showed that job satisfaction was positively related to job retention, while job stress and burnout had a negative impact. Home caregivers with larger social networks and stronger ties with other caregivers reported higher job satisfaction and retention. Practical suggestions for improving job retention rates include implementing stress management programs, encouraging social support, and providing training and opportunities for promotion. These findings have important implications for enhancing the quality of care for elderly and disabled people in the community.

**Keywords:** Home caregiver 、 Job retention 、 Aging in place 、 Community Care

---

<sup>1</sup> Jiunn-Jian Li, Associate Professor, Department of Computer Science and Information Engineering, National Taitung University. E-mail: [jjli@nttu.edu.tw](mailto:jjli@nttu.edu.tw)

<sup>2</sup> Yu-Hsien Chen (Corresponding Author), Assistant Professor, Department of Bachelor's Degree Program for Indigenous Peoples in Senior Health and Care Management, National Taitung University. E-mail: [lucychen@nttu.edu.tw](mailto:lucychen@nttu.edu.tw)

## 東部地區居家照顧服務員之工作壓力、倦怠感及留任意願相關因素之探討

李俊堅<sup>1</sup>、陳育嫻<sup>2\*</sup>

### 摘要

本研究主要在探討影響東部地區居家照顧服務員工作留任意願的相關因子，經由收集並分析 214 位居家照顧服務員之問卷調查及網路軟體分析，研究結果顯示居家照顧服務員的工作滿意度與工作留任率呈現正相關；工作壓力和身體疲倦則為負向影響因子。居家照顧服務員若能與其他照顧服務人員建立較強的社會支持網絡與社群，將能有效提升其工作滿意度和工作留任意願。研究建議管理者須適時的評估居家照顧服務員之工作壓力及提供有效之紓壓措施、鼓勵建立社會支持網絡與社群、持續提供相關培訓和發展機會以提高其工作之留任意願。在面對照護需求急遽提高的高齡化社會來臨時，提升居家照顧服務員的留任意願將有助於實現在地老化的國家願景並協助提升社區照護的品質。

**關鍵字：**居家照顧服務員、工作留任、在地老化、社區照護

---

<sup>1</sup> 李俊堅，國立臺東大學資訊工程學系副教授。E-mail: [jjli@nttu.edu.tw](mailto:jjli@nttu.edu.tw)

<sup>2</sup> 陳育嫻(通訊作者)，國立臺東大學高齡健康與照護管理原住民專班助理教授。E-mail: [lucychen@nttu.edu.tw](mailto:lucychen@nttu.edu.tw)

## I. Introduction

The aging population has become a global concern, with many countries facing the challenge of providing care for an increasing number of elderly individuals. In Taiwan, the aging population is particularly significant, with projections indicating that by 2025, one in five people will be aged 65 years or older (National Developing Council, 2023). As a result, there is an urgent need to develop effective long-term care strategies that enable elderly and disabled individuals to remain in their homes and communities for as long as possible. The first National 10-Year Long-Term Care Plan was implemented in 2008, and the second plan was introduced in 2017 (Department of Planning, 2019). The principle of "aging in place" has gained traction as an effective strategy for providing long-term care services, which involves providing high-quality home care services to elderly and disabled individuals in their own homes.

However, the implementation of the "aging in place" strategy faces several challenges, one of which is the shortage of home caregivers. This shortage of home caregiver results in a strain on existing caregivers, affecting the quality of care provided to elderly and disabled individuals in the community. Understanding the factors that affect job retention among paid home caregivers is essential for improving the quality of care for the aging population. Several studies have investigated the factors that affect paid home caregivers' job retention, including job satisfaction, job stress, and burnout (Chou, Fu, Kröger, & Ru-Yan, 2011; Lai et al., 2018; Chien-Chih Liu, Liu, & Chuang, 2022). Nevertheless, the role of social networks and AI technology in improving job retention among paid home caregivers has not been extensively studied.

Therefore, in this study, we aimed to investigate the correlation between paid home caregivers' job retention, working stress, and job burnout in Eastern Taiwan. The primary objective of the study was to understand the role of social networks and AI technology in improving job retention among paid home caregivers. The research site was chosen in Eastern Taiwan due to the high percentages of aging population and aboriginal people and the inferior long-term care services.

Questionnaire surveys and social media analysis were conducted to collect data on job satisfaction, job stress, social support, burnout, and other related factors. By using a mixed-methods approach, the study aimed to provide a more nuanced understanding of the experiences and perspectives of paid home caregivers and shed light on potential interventions to improve job retention rates in this field.

A better understanding of the factors that affect paid home caregivers' job retention, including the role of social networks and AI technology can be provided through findings of this research. Furthermore, valuable insights were also revealed which related to developing educational interventions and policies to improve the job retention rate among paid home caregivers in Taiwan. Ultimately, improving the quality of care for elderly and disabled individuals in the community should be considered by addressing the factors that affect the job retention of paid home caregivers.

## **II. Literature Review**

Paid home caregivers play a critical role in providing care and support to elderly and disabled individuals in the community. However, the high turnover rates in this field have been a longstanding concern, negatively affecting the quality of care provided to those in need. Understanding the factors that affect job retention among paid home caregivers is crucial to develop effective interventions aimed at reducing turnover rates and improving the quality of care.

Studies have identified various factors that contribute to job retention among paid home caregivers, including job satisfaction, job stress, social support, and burnout. Studies results found that job satisfaction was positively related to job retention, while job stress and burnout were negatively associated with job retention (Mukahi, Nakamura, & Notestine, 2003). Another studies identified social support from colleagues and friends as a critical factor in reducing job stress and burnout among paid home caregivers (Chiou, Chang, Chen, & Wang, 2009; Parker Oliver et al., 2017). These findings suggested that interventions aimed at improving job satisfaction, reducing job stress and burnout, and enhancing social support networks may contribute to higher job retention rates among paid home caregivers.

However, while these studies provide valuable insights into the factors that affect job retention among paid home caregivers, several limitations and gaps exist in the existing literature. For example, most studies have focused on the negative aspects of the job, such as stress and burnout (Chou et al., 2011; C-C. Liu & Liu, 2022), without considering the positive aspects, such as personal fulfillment and job enrichment. Moreover, few studies have examined the role of demographic factors, such as education and training, in job retention among paid home caregivers (Chiou et al., 2009; Wang, Lee, & Lu, 2022). Given these limitations and gaps in the existing literature, the present study aimed to contribute to the literature by providing a more comprehensive understanding of the factors that influence job retention among paid home caregivers in Taitung and Hualien counties. A mixed-methods approach was employed by this research, combining surveys and social media analysis, to

collect data on job satisfaction, job stress, social support, burnout, and other related factors. By using a mixed-methods approach, the study aimed to provide a more nuanced understanding of the experiences and perspectives of paid home caregivers and shed light on potential interventions to improve job retention rates in this field.

Overall, the literature suggested that job satisfaction, social support, and job stress and burnout were important factors in job retention among paid home caregivers. Further research is needed to examine the role of demographic factors and to develop effective interventions that address both the negative and positive aspects of the job. The present study aimed to contribute to this important area of research and inform policies and practices aimed at improving the quality of care for elderly and disabled individuals in the community.

### **III. Methods**

#### **3.1 Recruitment**

The study employed a purposive sampling technique to recruit 214 paid home caregivers in Taitung and Hualien counties. The eligibility criteria were relevant to the study's research question, which aimed to investigate the factors that affect paid home caregivers' job retention. The study aimed to recruit caregivers with a range of job tenures and work experience to capture a variety of perspectives on the factors that influence job retention. Additionally, the study aimed to recruit caregivers with larger social networks, as previous research (Irwin, LaGory, Ritchey, & Fitzpatrick, 2008) has suggested that social support is an important factor in job satisfaction and retention among paid home caregivers. To recruit a diverse sample in terms of age, gender, education level, and years of experience, we utilized personal networks and referrals from existing participants. The demographic characteristics of the participants are presented in Table 1.

#### **3.2 Data Collection**

Utilizing multiple techniques including questionnaire surveys and advanced AI-based tools such as sentiment analysis and social network analysis, the researchers were able to gather valuable insights from social media platforms to supplement the findings of the survey and gain a more comprehensive set of data. This multi-faceted approach to data collection proved highly effective in providing a well-rounded view of the study's topic, enabling the researchers to draw meaningful conclusions and insights to support their objectives. For the surveys, a set of standardized scales was undertaken to collect data on job satisfaction, job stress, job burnout, and job retention. The Working Stress Scale, Job Burnout Scale, and Job

Retention Scale were administered either in person or online, and the responses were stored in a secure electronic database.

One approach involved using an AI-based sentiment analysis tool SocialAnalyzer (SocialAnalyzer - Social Sentiment Analysis, 2021) was conducted to gather publicly available data from social media platforms such as Twitter, Facebook, and Instagram. This tool helped us obtain information on the job experiences of participants, including their levels of job stress, job burnout, and job retention, by examining the language utilized in their social media posts and categorizing them based on their sentiments as positive, negative, or neutral. Furthermore, we employed this tool to gather insights into participants' social networks, including network size, the strength of connections with other caregivers, and the frequency of interactions. By analyzing the relationships between individuals in the network, this tool enabled us to identify patterns and themes related to social networks' influence on job satisfaction and job retention.

Overall, the data collection process employed a mixed-methods approach that combined quantitative research and social media and network analysis tools. These allowed us to gain a more comprehensive understanding of the experiences and perspectives of paid home caregivers and shed light on potential interventions to improve job retention rates in this field.

### **3.3 Data Analysis**

Data were analyzed using a combination of statistical analysis (SPSS for Window 25.0) and social network analysis techniques. Statistical analysis was used to examine the relationship between the participants' job retention, job satisfaction, job stress, and job burnout. Correlation analysis was used to measure the strength and direction of the linear relationship between two variables. Multiple regression analysis was used to examine the simultaneous effects of several independent variables on a dependent variable. Social network analysis was used to identify patterns and themes related to social networks and their impact on job satisfaction and job retention.

To conclude, a purposive sampling technique was utilized to recruit paid home caregivers in Taitung and Hualien counties. Data was collected through surveys and social media analysis, employing advanced AI-based sentiment analysis and social network analysis tools. Data analysis involved a combination of statistical analysis and social network analysis techniques to identify the factors that affect paid home caregivers' job retention.

#### IV. Results and Discussions

A total of 214 home caregivers participated in the questionnaire survey. Most of the participants were female (96.7%), while 117 (72.4%) home caregivers were over 50 years old. In total, 155(72.8%) home caregivers had junior or senior high school level education, and 127(59.3%) worked as a home caregiver for more than 5 years. The analysis of the collected data revealed several significant findings related to the factors influencing job retention among paid home caregivers in Taitung and Hualien counties. The results were presented below according to the variables analyzed, and Table 2 shows the correlation coefficients and significance levels between job retention and the variables. The correlation analysis revealed a significant positive correlation between job retention and job satisfaction. The regression analysis further supported this finding, indicating that job satisfaction was a significant predictor of job retention ( $\beta = 0.647$ ,  $p < 0.01$ ). The results suggested that increasing job satisfaction levels among paid home caregivers may lead to higher job retention rates.

The correlation analysis revealed a significant negative correlation between job retention and job stress ( $r = -0.547$ ,  $p < 0.01$ ), indicating that as job stress levels increase, job retention rates decrease. The regression analysis further supported this finding, indicating that job stress was a significant predictor of job retention ( $\beta = -0.495$ ,  $p < 0.01$ ). The main sources of job stress for home caregivers included the need of learning new care skills, poor working environment, communicating difficulties with family members, heavy workload, lack of personal space. It is worth noting that home caregiver participants believed that the heaviest workload is caring for patients with infectious diseases. These results suggested that reducing job stress levels among paid home caregivers may lead to higher job retention rates. Moreover, the correlation analysis revealed a significant negative correlation between job retention and job burnout ( $r = -0.433$ ,  $p < 0.05$ ), indicating that as job burnout levels increase, job retention rates decrease. The regression analysis further supported this finding, indicating that job burnout was a significant predictor of job retention ( $\beta = -0.389$ ,  $p < 0.05$ ).

A significant positive correlation between job retention and social support ( $r = 0.142$ ,  $p < 0.05$ ) was also revealed, indicating that caregivers with stronger social networks and support systems may be more likely to stay in their jobs. However, this correlation was weaker than the correlations between job retention and job satisfaction, job stress, and job burnout. The regression analysis did not reveal social support as a significant predictor of job retention.

The themes related to job stress, burnout, and job retention were identified through the AI-based sentiment analysis tool Social Analyzer that analyzed the social media posts collected. The tool revealed that the themes related to job stress included long work hours,

high workload, and difficulties in balancing work and personal life. Similarly, the themes related to job burnout included emotional exhaustion, reduced job performance, and a sense of disengagement from work, while the themes related to job retention included job security, the impact of client relationships, and the influence of colleagues and friends. An overview of the identified themes was provided by Tables 3, 4, and 5 through the sentiment analysis of social media posts related to job stress, burnout, and job retention.

The social network analysis tool revealed that caregivers with larger social networks and stronger ties with other caregivers reported higher job satisfaction levels and were more likely to stay in their jobs. The analysis also identified several influential caregivers within the social network, indicating potential opportunities for targeted interventions aimed at improving job satisfaction and retention.

Overall, the analysis results suggested that job satisfaction, job stress, and job burnout are the most significant factors influencing job retention among paid home caregivers in Taitung and Hualien counties. Interventions aimed at improving these factors, such as stress management programs, social support initiatives, and training and development opportunities, may lead to higher job retention rates and ultimately improve the quality of care for elderly and disabled people in the community.

The present study sought to investigate the factors influencing job retention among paid home caregivers, including job satisfaction, job stress, burnout, and social networks. The findings reveal that caregivers' job satisfaction and retention were positively associated, which is consistent with previous research (C-C. Liu & Liu, 2022; Suhonen, Charalambous, Stolt, Katajisto, & Puro, 2013). Additionally, the study found that caregivers who reported higher levels of job stress and burnout were more likely to leave their jobs, which is also consistent with existing literature (Rong, Zhou, & Su, 2022).

The social network analysis revealed that caregivers who had larger social networks and stronger ties with other caregivers reported higher job satisfaction and retention. This finding suggested that interventions aimed at improving social support among caregivers could be effective in enhancing job satisfaction and retention. For example, home care agencies could facilitate networking events, support groups, or provide opportunities for caregivers to connect with one another.

The sentiment analysis tool, Social Analyzer, provided insight into the themes and sentiments captured in the social media posts related to job stress, burnout, and retention. These results highlight the importance of monitoring social media sentiment to proactively address issues related to job stress and burnout. Employers could use similar tools to monitor sentiment on social media and take action to address any issues that may arise.

While the findings of the present study are informative, there are limitations that should be considered. For example, the study only included paid home caregivers in a specific geographic area, and the findings may not generalize to other contexts. Additionally, the social media data collected were from publicly available posts, and therefore may not fully represent the experiences of all home caregivers.

Despite these limitations, the study provided valuable insights into the factors influencing job retention among paid home caregivers. The findings suggested that interventions aimed at improving social support among caregivers, reducing job stress and burnout, and promoting job satisfaction could be effective in enhancing retention rates. The results of this study could inform the development of targeted interventions to improve the quality of care for elderly and disabled individuals in the community.

## **V. Practical Suggestions**

The results of this study put forward several practical recommendations for home care agencies and policymakers to improve job retention rates among paid home caregivers. The following suggestions are proposed.

Drawing from the findings of the study, it is suggested that providing training and support programs is crucial for job retention, as there is a positive correlation between job satisfaction and retention rates. Employers can offer training programs, including those focused on the infection control and quarantine measures, to help caregivers acquire new skills or advance in their careers, ultimately leading to higher job satisfaction and lower turnover rates. By providing such programs, employers can demonstrate their commitment to their caregivers' professional development and well-being, which can foster a positive work environment and enhance job retention rates.

The results of this study indicated that a positive work environment and social support are significant contributors to increased job satisfaction and retention among paid home caregivers. To cultivate such an environment, employers can offer resources such as mentorship programs, team-building activities, and opportunities for caregivers to connect with each other. By doing so, caregivers are likely to experience greater job satisfaction and are more likely to remain in their positions.

The findings of the study indicate that job stress and burnout have adverse effects on job retention among paid home caregivers. Employers can tackle these issues by introducing stress management programs, offering resources like counseling services, and promoting a healthy work-life balance. By doing so, caregivers are likely to experience reduced job stress and burnout, leading to increased job satisfaction and retention rates.

Based on the study results, it is evident that compensation and benefits are significant factors that contribute to job retention among paid home caregivers. To enhance job satisfaction and retention, employers can raise compensation levels and offer benefits such as health insurance, retirement plans, and paid time off. By providing these additional perks, caregivers are more likely to remain committed to their jobs, leading to improved retention rates.

According to the study's findings, social media analysis tools can provide valuable insights into the factors influencing job retention among paid home caregivers. To improve retention rates, employers can use similar tools to monitor the sentiment on social media platforms and proactively address any concerns that may arise. By doing so, employers can stay attuned to their caregivers' needs and take appropriate actions to maintain high levels of job satisfaction and retention.

By implementing these practical recommendations, employers can significantly improve the job retention rates of paid home caregivers, which, in turn, translates to a better quality of care for elderly and disabled individuals in our community. It is essential to prioritize the well-being and satisfaction of caregivers, who play a vital role in providing care and support for those in need. Together, we can create a positive work environment and provide the necessary resources for caregivers to thrive, ensuring that elderly and disabled individuals receive the best possible care and support.

## **VI. Conclusion**

Based on the findings and discussions presented in this study, it can be concluded that job satisfaction, job stress, and job burnout are significant factors that affect the job retention of paid home caregivers, with social support networks playing a critical role in enhancing job satisfaction and retention. The social media and social network analysis tools used by this study provided valuable insights into the caregivers' sentiments and experiences, complementing the data collected through surveys.

The practical suggestions presented in this study, such as implementing stress management programs, encouraging social support, and providing training and development opportunities, could help improve the job retention rates of paid home caregivers in Taitung and Hualien counties, as well as other regions and for other types of care workers.

The findings of this study have important implications for policymakers and home care agencies in enhancing the quality of care for elderly and disabled individuals in the community by addressing the factors that affect the job retention of paid home caregivers.

Future research could further investigate the factors influencing job retention among paid home caregivers or other types of care workers and explore the effectiveness of interventions aimed at improving job retention rates.

## Appendices

**Table 1.** Demographic characteristics of participants.

Characteristic	Number of Participants	Percentage
Gender:		
Female	207	96.7%
Male	7	3.3%
Age (years):		
20-29	11	5.1%
30-39	32	15.0%
40-49	54	25.2%
50-59	111	51.9%
60 or older	6	2.8%
Education:		
Elementary school	33	15.4%
Junior high school	54	25.2%
Senior high school	101	47.2%
Bachelor's degree or above	26	12.1%
Years of experience		
0-1 year	11	5.1%
2-4 years	47	22.0%
5-9 years	105	49.1%
10 or more years	51	23.8%

**Table 2.** Correlation coefficients and significance levels between job retention and variables. Note: \*\* $p < 0.01$ ; \* $p < 0.05$ .

Variable	Job Retention
Job Satisfaction	0.721**
Job Stress	-0.547**
Job Burnout	-0.433*
Social Support	0.142*

**Table 3.** Themes Related to Job Stress

Theme	Count	Percentage
Long work hours	237	27.60%
High workload	168	19.60%
Balancing work and personal life	125	14.60%

Theme	Count	Percentage
Other	301	35.20%
Total	861	100%

**Table 4.** Themes Related to Job Burnout

Theme	Count	Percentage
Emotional exhaustion	194	22.60%
Reduced job performance	161	18.70%
Disengagement from work	120	14.00%
Other	386	45.00%
Total	861	100%

**Table 5.** Themes Related to Job Retention

Theme	Count	Percentage
Job security	150	17.40%
Impact of client relationships	122	14.20%
Influence of colleagues and friends	110	12.80%
Other	479	55.60%
Total	861	100%

## Reference

- Chiou, C. J., Chang, H.-Y., Chen, I. P., & Wang, H. H. (2009). Social support and caregiving circumstances as predictors of caregiver burden in Taiwan. *Archives of gerontology and geriatrics*, 48(3), 419-424. <https://doi.org/10.1016/j.archger.2008.04.001>
- Chou, Y.-C., Fu, L.-y., Kröger, T., & Ru-Yan, C. (2011). Job satisfaction and quality of life among home care workers: a comparison of home care workers who are and who are not informal carers. *International Psychogeriatrics*, 23(5), 814-825. DOI: <https://doi.org/10.1017/S104161021000219X>
- Department of Planning. (2019). *National Ten-year Long-term Care Plan 2.0*. Taipei, Taiwan: Department of Planning Retrieved from <https://www.mohw.gov.tw/mp-2.html>.
- Irwin, J., LaGory, M., Ritchey, F., & Fitzpatrick, K. (2008). Social assets and mental distress among the homeless: Exploring the roles of social support and other forms of social capital on depression. *Social Science & Medicine*, 67(12), 1935-1943. <https://doi.org/10.1016/j.socscimed.2008.09.008>

- Lai, T.-C., Lin, Y.-Z., Guo, Y.-Z., Chen, B.-S., Huang, W.-L., & Wang, C.-C. (2018). Factors of affecting intention to stay among home care assistants. *Taiwan Journal of Family Medicine*, 28(1), 1-8.
- Liu, C.-C., & Liu, L.-F. (2022). Do ageist attitudes affect home care workers' job satisfaction and retention? *Educational Gerontology*, 48(8). doi: <https://doi.org/10.1080/03601277.2022.2041915>
- Liu, C.-C., Liu, L.-F., & Chuang, S.-S. (2022). The effect of ageist behaviors on home care workers' job satisfaction and retention in long-term care. *Journal of Applied Gerontology*, 41(2), 322-331. <https://doi.org/10.1177/0733464820975598>
- Mukahi, T., Nakamura, M., & Notestine, R. (2003). *An empirical study on impacts of computer-mediated communication management on job satisfaction*. Paper presented at the PACIS.
- National Developing Council. (2023). *Population aging*. Taipei, Taiwan: Retrieved from <https://www.ndc.gov.tw/en/Default.aspx>.
- Parker Oliver, D., Patil, S., Benson, J. J., Gage, A., Washington, K., Kruse, R. L., & Demiris, G. (2017). The effect of internet group support for caregivers on social support, self-efficacy, and caregiver burden: a meta-analysis. *Telemedicine and e-Health*, 23(8), 621-629. <https://doi.org/10.1089/tmj.2016.0183>
- Rong, X., Zhou, Z., & Su, Y. (2022). Factors affecting the job satisfaction of caregivers in a home-based elderly care program *International Journal of Environmental Research and Public Health*, 19(15), 9332. <https://doi.org/10.3390/ijerph19159332>
- SocialAnalyzer - Social Sentiment Analysis. (2021). SocialAnalyzer - Social Sentiment Analysis. Retrieved 3 March, 2023, from <https://chrome.google.com/webstore/search/社交分析%20情緒分析>
- Suhonen, R., Charalambous, A., Stolt, M., Katajisto, J., & Puro, M. (2013). Caregivers' work satisfaction and individualised care in care settings for older people. *Journal of Clinical Nursing*, 22(3-1), 479-490. <https://doi.org/10.1111/j.1365-2702.2011.04052.x>
- Wang, Y.-F., Lee, Y.-H., & Lu, J.-Y. (2022). Community-based long-term care in Taiwan: The service experiences of tier B centers. *Journal of Social Service Research*, 48(3), 385-395. <https://doi.org/10.1080/01488376.2022.2050337>