

A Study on the Quality of Life of Elderly Nurses in Two Selected Elderly Care Institutions in Shandong Province

Qing Ji*

Zibo Vocational Institute Shandong, Zibo 255314, China

*Corresponding author: Qing Ji, jolinbaby1216@126.com

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Abstract: *Objective:* To comprehensively understand the impact of the quality of life of elderly nurses in two selected elderly care institutions in Zibo city, Shandong province, and to provide a scientific basis for improving the professional quality of life of elderly nurses. *Methods:* The convenient sampling method was used to investigate the professional quality of life (proQOL) questionnaire Version 5 and the self-designed demographic data of 82 elderly nurses working in two elderly care institutions. *Result:* From this score, it can be seen that the occupational burnout problem of elderly nursing staff in the two nursing homes is the most significant, with empathy and secondary trauma emergency at a moderate level. After controlling the demographic variables, the working hours and monthly income level had a significant impact on nurses' job burnout. *Conclusion:* Due to the particularity and high intensity of elderly nurses' work, their physical and mental health faces many challenges, which affect their quality of life. At present, efforts will be made to reduce work pressure, increase wages and benefits, and thereby improve the quality of life.

Keywords: Elderly care institutions nurses; Quality of life; Compassion fatigue; Burnout

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1. Introduction

With the aggravation of the aging of our society, the number of senile diseases is gradually increasing, leading to an increase in the demand for elderly care institutions^[1]. The quality of elderly care services in elderly care institutions is closely related to the quality of life of elderly nurses. Therefore, studying the quality of life of elderly nurses in elderly care institutions can help to understand the working status and physical and mental health status of elderly nurses in elderly care institutions, and provide reference for improving the quality of elderly care services.

2. Materials and methods

This study used a questionnaire survey method to investigate the elderly nurses of two selected elderly care institutions in Zibo city, Shandong province. A questionnaire survey that consists of two main questionnaires is used as the research tool that contained self-designed demographic data of elderly nurses and the professional quality of life (proQOL) 5 self-score, also known as occupational quality of life measurement, to assess nurses' quality of life. This questionnaire is intended to examine the positive and negative aspects of nurses' working lives^[2].

The questionnaire was created by Stamm after conducting extensive research on compassion

fulfillment and weariness and can be used as a manual to ensure its dependability and efficacy [2]. In this study, the Chinese version of the questionnaire was used as it is more in accordance with the survey area and human language pattern, and it is simpler to ensure the data is correct. Each item of information has been rated and inspected as follows: 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often; and 5 = Very Often.

Every item on the questionnaire adopts the Likert 5-level scoring method, with a score of 1–5 points from “never” to “very often”. Scores on questions 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30 were added to find the compassion satisfaction score. The average score on the compassion satisfaction scale is 50 [standard deviation (SD) 10; alpha scale reliability 0.88]. A higher range indicated a good deal of professional satisfaction from the individual’s current position. Scores on questions 1, 4, 8, 10, 15, 17, 19, 21, 26, and 29 were added to find the burnout score. The average score on the burnout scale is 50 (SD 10; alpha scale reliability 0.75). However, the secondary traumatic stress scores used an inverse scoring on questions 1, 4, 15, 17, and 29, where 1 score for the question is equivalent to 5 scores for the secondary traumatic stress scale, and 5 scores for the question is equivalent to 1 score for the secondary traumatic stress scale, and so on. The average score on the Secondary Traumatic Stress scale is 50 (SD 10; alpha scale reliability 0.81).

The participants in this study were recruited from two elderly care institutions starting in 2022 using convenient sampling techniques. Data from two different types of elderly care institutions, public and private, were collected and included according to the following standards:

- (1) At least six months of work experience;
- (2) The elderly nurse certificate or the national general nurse practitioner certificate;
- (3) Employees who have had a health examination certificate within the last six months;
- (4) Participants who are willing to devote enough time to complete the questionnaire.

Age, gender, marital status, highest educational attainment, working hours per day, monthly salary, and other demographic information were taken into account for the study nurses conducted. Due to their lack of work experience, intern or trainee nurses, as well as those with less than six months of employment, were not included in this study. Additionally, head nurses and managers who were not actively involved in providing care for elderly patients were excluded from this study.

Table 1 is a general breakdown of the nursing staff across two types of elderly care institutions.

Table 1. Two types of elderly care institutions (cases)

Pension institutions	Institution type	Participants
Institution A	Private integrated medical and nursing home	40
Institution B	Public nursing home	42
Total		82

Statistical analysis of the data processing was performed using the SPSS 22.0 software. Descriptive statistics were used for overall statistics of variables, and differences between different groups were compared using the *t*-test and analysis of variance.

3. Results

3.1. Average condition analysis:

The survey results (**Table 2**) show that the compassion satisfaction scores of elderly nurses in two elderly care institutions are at a low to medium level, with approximately 62.9% of respondents falling within the low-level range of empathy satisfaction. The second item of occupational burnout scores is all at a high level, with approximately 76.6% of respondents falling within the high-level range of occupational burnout. In terms of secondary traumatic stress, the final score is moderate, with approximately 64.3% of

respondents falling within the moderate range of secondary traumatic stress.

Table 2. Analysis of the average situation of proQOL 5 self-score in three aspects (mean \pm SD)

Group	Institution A	Institution B	Compliance (%)
Compassion satisfaction	22.57 \pm 3.62	24.64 \pm 3.31	62.9%
Burnout	54.61 \pm 7.14	55.28 \pm 6.11	76.6%
Secondary traumatic stress	33.85 \pm 6.24	34.76 \pm 5.83	64.3%

Through the analysis of the questionnaire results, most elderly nurses showed to have to deal with the problem of job burnout, and some people still have the problem of compassion fatigue and secondary traumatic stress. In response to the more severe job burnout that has occurred, objections for single-factor correlation analysis were further selected to identify the factors that currently affect the quality of life of elderly nurses in these two elderly care institutions.

3.2. Univariate analysis

The univariate analysis explored the effect of job burnout on the quality of life of elderly nurses by comparing the scores in different working conditions. Start with all the factors of demographic and social factors (**Table 3**).

Table 3. General data variable assignment method

Variable	Assignment situation
Age	18–30 y = 1; 30–40 y = 2; 40–50 y = 3; 50–60 y = 4; Above 61 = 5
Gender	Male = 1; Female = 2
Marital status	Single = 1; Married = 2; Divorced = 3
Highest educational attainment	Below junior college = 1; Junior college = 2; Undergraduate = 3; Master's = 4; Above Master's = 5
Working hours per day	8 hours/day = 1; 12 hours/day = 2; 16 hours/day = 3; 24 hours/day = 4
Monthly salary	RMB 1500–2500 = 1; RMB 2500–3500 = 2; RMB 3500–4500 = 3; Above RMB 4500 = 4

Through comparative analysis (**Table 4**), the decline in quality of life was found to be caused by job burnout among elderly nurses in two elderly care institutions is mainly influenced by the following factors:

- (1) Personal factors: Personal factors include age, marital status, and education level, which have a significant impact on the quality of life of elderly nurses. The average score of job burnout among elderly nurses aged 30–40 is higher, mainly related to the high life pressure during this stage of life. From the perspective of marital status, the average score of job burnout among single elderly nurses is at a higher level. From the perspective of education level, none of the nurses of the two elderly care institutions has a Master's degree or above, and the higher the education level, the higher the average score of job burnout for elderly nurses.
- (2) The impact of average monthly income level: The higher the monthly income level, the more moderate the average score of job burnout for elderly nurses. Conversely, the lower the monthly income level, the higher the average score of job burnout.
- (3) Continuous working hours in a day: The longer the working hours of elderly nurses, the higher the average level of job burnout. Due to occupational limitations, elderly nurses already have a large workload, long working hours, and cumbersome work content. Therefore, the continuous working

hours in a day should be gradually rationalized.

Table 4. Analysis of the influencing factors of job burnout among the elderly nurses

Item	Case (%)	Job burnout score (mean ± SD)	t value	P value
Age			4.766	< 0.001
18–30 y	18 (21.95)	54.46 ± 3.81		
30–40 y	15 (18.29)	55.81 ± 3.48		
40–50 y	35 (42.68)	53.89 ± 3.27		
50–60 y	12 (14.63)	53.53 ± 3.16		
Above 61 y	2 (2.44)	53.20 ± 2.96		
Gender			1.851	0.083
Male	6 (7.32)	54.56 ± 2.29		
Female	76 (92.68)	53.02 ± 5.68		
Marital status			3.324	< 0.005
Single	16 (19.51)	54.30 ± 2.83		
Married	61 (74.39)	53.64 ± 4.14		
Divorced	5 (6.10)	53.68 ± 3.42		
Highest educational attainment			6.643	< 0.005
Below junior college	36 (43.90)	53.63 ± 2.98		
Junior college	38 (46.34)	53.91 ± 3.70		
Undergraduate	8 (9.76)	54.30 ± 2.94		
Master's	0 (0.00)	-		
Above Master's	0 (0.00)	-		
Working hours per day			7.168	< 0.001
8 hours/day	14 (17.07)	50.09 ± 2.20		
12 hours/day	55 (67.07)	53.11 ± 3.13		
16 hours/day	10 (12.20)	54.86 ± 4.02		
24 hours/day	3 (3.66)	54.09 ± 4.14		
Monthly salary			7.363	< 0.001
RMB 1500–2500	26 (31.71)	54.93 ± 3.20		
RMB 2500–3500	37 (45.12)	54.47 ± 3.32		
RMB 3500–4500	14 (17.07)	53.90 ± 3.27		
Above RMB 4500	5 (6.10)	50.17 ± 3.44		

4. Conclusion and suggestions

Based on the research results, the following conclusions and recommendations were drawn:

- (1) Improving the working environment and conditions of elderly care institutions can improve their quality of life by reducing their daily working hours and alleviating their work pressure.
- (2) Improve the salary and career development prospects of elderly care institutions, improve the job satisfaction of elderly care nurses, and improve their quality of life ^[3]. Innovate salary and treatment reforms, earn more for more work, stimulate the original motivation of work, and reduce job burnout.
- (3) Strengthen mental health education and counseling to help elderly nurses alleviate psychological stress and improve their quality of life ^[4].
- (4) Strengthen the supervision and management of elderly care institutions to ensure that the quality of elderly care services is guaranteed and improved ^[5].

5. Summary

This study investigated the relationship between quality of life and job burnout among elderly nurses in two selected elderly care institutions in Zibo city, Shandong province. The results showed that the quality of life of elderly nurses is generally not high, with certain work pressure and psychological problems. Through comparative analysis, we found that the factors that affect the quality of life and job burnout of elderly nurses mainly include work hours and conditions, salary and career development, personal factors, and other aspects. Therefore, we suggest improving the working environment and conditions, increasing salary and career prospects, and strengthening mental health education and counseling to improve the service quality of elderly care institutions and the quality of life of elderly nurses^[6]. At the same time, it is also necessary to strengthen the supervision and management of elderly care institutions to ensure that the elderly have a basis for their old age.

Disclosure statement

The author declares no conflict of interest.

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