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Original Article

Effects of Emotional Labor, Work–Life Balance, and Empowerment on the Professional Quality of Life of Korean Nurses

In Sun Kim [1], Hee Jeong Yoon [2], *Yeon Ran Hong [3]

1. *Department of Nursing, Hanyeong University, Yeosu-si, Republic of Korea*
2. *College of Liberal Arts, Chungwoon University, Hongseong-gun, Republic of Korea*
3. *Department of Nursing, Sunchon National University, Suncheon-si, Republic of Korea*

***Corresponding Author:** Email: yrhong@scnu.ac.kr

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Abstract

Background: This descriptive survey study aimed to investigate the effects of emotional labor, work–life balance, and empowerment on nurses' professional quality of life (ProQOL) and provide foundational data for improving the ProQOL of Korean nurses.

Methods: Nurses who had been working for at least six months in hospitals in Yeosu, Suncheon, and Gwangyang, the Republic of Korea, were surveyed in April 2022. Using a structured questionnaire, data were collected on general characteristics, emotional labor, work–life balance, empowerment, and ProQOL. The collected data were analyzed using frequency analysis, independent *t*-tests, analyses of variance, post-hoc tests, Pearson's correlation analysis, and multiple regression analysis.

Results: ProQOL was negatively correlated with emotional labor (r=-0.550, *P*<0.001) and positively correlated with work–life balance (r=0.680, *P*<0.001) and empowerment (r=0.454, *P*<0.001). Emotional labor (β=-0.27, *P*<0.001), work–life balance (β=0.44, *P*<0.001), and empowerment (β=0.28, *P*<0.001) were identified as the predictors of ProQOL, such that reduced emotional labor and increased work–life balance and empowerment enhanced ProQOL. These factors explained 62.1% of the variance in the ProQOL of Korean nurses (F=42.86, *P*<0.001).

Conclusion: To enhance the ProQOL of Korean nurses, it is vital to help them adjust their work–life balance, decrease their emotional labor, and increase their empowerment.

Keywords: Emotional labor; Empowerment; Nurses; Professional quality of life; Work-life balance

Introduction

As medical technology advances and the public's health needs increase, competition among hospitals to attract customers is intensifying. Along with medical technology, customer service education is also being strengthened to improve the quality of medical services (1). These social changes are increasing the emotional labor of healthcare workers. Nurses, in particular, perform more emotional labor than general office workers do, and emotional labor is known to cause job stress and even affect one's intention to change one's occupation (2).

Emotional labor refers to the effort employed in controlling one's facial expressions and body lan-

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guage to express emotions that align with the goals one's organization aims to pursue (3). In the context of nurses, performing emotional labor denotes expressing emotions based on the norms of the hospital in addition to being kind and helpful. A nurse's job is generally considered to be providing healthcare services in a kind manner, and little attention is paid to the emotional labor nurses must perform (4). However, with the increasing emphasis on the emotional labor of service industry workers, nurses' emotional labor is also receiving attention.

High levels of emotional labor can cause burnout among nurses (4). Burnout is exhaustion arising from frequent contact with others and refers to a state of physical, mental, and emotional exhaustion due to stress (5). It is related to decreased job engagement, reduced professional quality of life (ProQOL), and the intention to change jobs (5). Therefore, emotional labor must be controlled to reduce turnover rates and increase job engagement and ProQOL. In this regard, there has been a growing interest in work–life balance.

Work–life balance refers to the satisfaction one derives when one appropriately distributes one's time and energy between work and other areas (6). Among nurses, work–leisure balance increases leisure satisfaction, but irregular work patterns significantly impact their work–life balance (7). Work–life balance is the most important factor in relation to the workplace; if it is not maintained, it can hamper the quality of life of individuals and their families (7,8).

Empowerment has been gaining attention as a strategy to increase employee morale and improve the productivity and efficiency of healthcare professionals (9). It refers to the creation of a supportive and structural environment that allows nurses to demonstrate fully their capabilities in their work, thereby satisfying their job motivations and intrinsic needs. Empowerment increases nurses' capabilities and spreads that power throughout the nursing organization, bringing positive changes in nurses' attitudes and behaviors (9–11). Moreover, empowerment has been reported to decrease turnover intention and job stress and increase organizational commitment, nursing performance, and job satisfaction (10,11). Therefore, it is important to enhance nurses' empowerment.

In the Republic of Korea, there is a lack of research on nurses' ProQOL. If nurses' quality of life is enhanced, it can improve nursing performance and the care provided to patients (12). To improve nurses' quality of life, it is necessary to evaluate their ProQOL and identify its determinants. Therefore, we investigated the effects of emotional labor, work–life balance, and empowerment on the ProQOL of Korean nurses. With this objective, we aimed to provide foundational data for developing and implementing nursing intervention programs and improving nurses' ProQOL.

Materials and Methods

Participants and Data Collection

The target population of this study were nurses working for more than six months in hospitals located in Yeosu, Suncheon, and Gwangyang, Jeollanam-do Province, Republic of Korea, in April 2022. The participants were nurses who had been working for more than 6 months in hospitals with less than 400 beds in three cities of Jeollanam-do, agreed to the purpose of the study, and voluntarily participated. The number of participants required was calculated using G*Power program (version 3.1.9.4, Heinrich-Heine-University, Düsseldorf, Germany). For 14 independent variables, a two-sided significance level of 0.05, a medium effect size of 0.15, and a power of 0.95 for multiple regression analysis, the minimum number of samples required was 189 (13). Considering a dropout rate of 20%, 240 questionnaires were distributed. A total of 218 responses were received and used in data analysis.

All study procedures were approved by Sunchon National University (approval number: 1040173-202203-HR-005-02), Suncheon-si, Republic of Korea, and conducted according to the principles outlined in the Declaration of Helsinki. Furthermore, written informed consent was obtained from all the participants.

Instruments

General characteristics of the participants

The general characteristics of the participants were investigated in terms of sex, age, marital status, religion, education level, income level, department, work experience, job position, and work type using a self-reported questionnaire.

Emotional labor

Emotional labor was measured using the instrument developed by Morris and Feldman (14). This instrument comprises nine items: three items each on the frequency of emotional expression, carefulness of emotional expression, and emotional dissonance. All items are rated on a Likert scale ranging from 1 (not at all) to 5 (very much so). The total score ranges from 9 to 45, with higher scores indicating higher levels of emotional labor performance. In this study, the instrument had a Cronbach's α of 0.831.

Work–life balance

Work–life balance was assessed using an instrument developed by Kim and Park (6). It comprises 29 items across four sub-factors: eight items on work–family balance, eight items on work–leisure balance, nine items on work–growth balance, and four items on overall work–life evaluation. All items are rated on a Likert scale ranging from 1 (not at all) to 5 (very much so). The total score ranges from 29 to 145 points, with higher scores indicating higher degrees of work–life balance. In this study, the instrument had a Cronbach's α of 0.953.

Empowerment

Empowerment was measured using the "Texts of items measuring empowerment" instrument developed by Spreitzer (15). This instrument consists of 12 items across four areas: three items each on competence, meaning, self-determination, and impact. All items are rated on a 5-point Likert scale from 1 (not at all) to 5 (very much so), with higher scores indicating higher levels of empowerment. At the time of its development, the instrument had a Cronbach's α of 0.720 (15), and it was 0.903 in this study.

ProQOL

Nurses' ProQOL was measured using the Compassion Satisfaction and Fatigue (ProQOL) Version 5 developed by Stamm (16). This instrument comprises 30 items across three sub-areas: 10 items each on compassion satisfaction, burnout, and secondary traumatic stress. All items are rated on a 5-point Likert scale ranging from 1 (never) to 5 (very often). We evaluated the ProQOL for each sub-area, with a maximum score of 50. In Stamm's study (16), the Cronbach's α was 0.880, 0.750, and 0.810 for compassion satisfaction, burnout, and secondary traumatic stress, respectively. In this study, the Cronbach's α was 0.926, 0.809, 0.754, and 0.899 for compassion satisfaction, burnout, secondary traumatic stress, and the entire instrument.

Data analysis

Data were analyzed in the following ways. First, participants' general characteristics, emotional labor, work–life balance, empowerment, and ProQOL were analyzed using frequencies, percentages, means, and standard deviations. Second, we investigated differences in emotional labor, work–life balance, empowerment, and ProQOL based on participants' general characteristics using independent *t*-tests, analyses of variance, and post-hoc tests (Scheffé test). Third, correlations among emotional labor, work–life balance, empowerment, and ProQOL were analyzed using Pearson's correlation coefficients. Fourth, we performed multiple regression analysis to identify the determinants of nurses' ProQOL. All statistical analyses were performed using SPSS software (version 26.0; IBM Co., Armonk, NY, USA), and statistical significance was set at the $P<0.05$ level.

Results

Table 1 presents the general characteristics of the participants. Most participants were female (96.3%), married (58.7%), not religious (64.7%),

and had graduated from four-year universities (60.1%).

Table 1: General characteristics of the participants (n=218)

Variable	*Categories*	*N (%)*
Sex	Male	8 (3.7)
	Female	210 (96.3)
Age	Under 30 years	75 (34.4)
	30–34 years	49 (22.5)
	35–39 years	30 (13.8)
	40 years or over	64 (29.4)
Marital status	Married	128 (58.7)
	Single	90 (41.3)
Religion	Yes	77 (35.3)
	No	141 (64.7)
Education level	Two-year university	77 (35.3)
	Four-year university	131 (60.1)
	More than a master's degree	10 (4.6)
Income level	Less than USD 2,500	42 (19.3)
	USD 2,500 to less than USD 3,000	86 (39.4)
	USD 3,000 to less than USD 3,500	68 (31.2)
	USD 3,500 or more	22 (10.1)
Department	General ward	96 (44.0)
	Special ward	33 (15.1)
	Outpatient clinic or other	89 (40.8)
Work experience	Less than 5 years	66 (30.3)
	5 years to less than 10 years	38 (17.4)
	10 years to less than 20 years	70 (32.1)
	20 years or more	44 (20.2)
Job position	General Nurse	155 (71.1)
	Charge Nurse	35 (16.1)
	Head Nurse or higher	28 (12.8)
Work type	Rotational shift work (night work)	131 (60.1)
	Fixed shift work	87 (39.9)

Tables 2 and 3 present the results of investigating differences in emotional labor, work–life balance, empowerment, and ProQOL based on participants' general characteristics. Emotional labor differed significantly based on department (F=5.21, *P*=0.006) and work type (*t*=-2.27, *P*=0.024). Work–life balance differed significantly based on sex (*t*=-2.15, *P*=0.033) and education level (*t*=3.48, *P*=0.033). Empowerment differed significantly based on age (F=3.13, *P*=0.027), marital status (*t*=2.45, *P*=0.015), religion (*t*=2.77, *P*=0.006), income level (F=4.88, *P*=0.003), work experience (F=3.51, *P*=0.016), job position (F=6.63, *P*=0.002), and work type (*t*=-2.31, *P*=0.022). ProQOL differed significantly based on sex (*t*=-2.14, *P*=0.033), marital status (*t*=2.84, *P*=0.005), religion (*t*=2.65, *P*=0.009), and education level (F=4.04, *P*=0.019).

Table 2: Differences in emotional labor and work–life balance based on participants' general characteristics (n=218)

Variable	*Categories*	*Emotional labor*	*t/F (P)*	*Work–life balance*	*t/F (P)*
Sex	Male	3.04±0.63	1.40 (0.164)	3.17±0.70	-2.15
	Female	2.72±0.47		3.71±0.64	(0.033*)
Age	Under 30 years	3.03±0.60	0.31 (0.816)	3.28±0.72	0.94 (0.423)
	30–34 years	3.03±0.60		3.11±0.60	
	35–39 years	3.12±0.79		3.07±0.76	
	40 years or over	2.98±0.63		3.19±0.74	
Marital status	Married	2.98±0.62	-1.45 (0.149)	3.22±0.69	0.67 (0.504)
	Single	3.10±0.64		3.15±0.73	
Religion	Yes	2.98±0.57	-0.77 (0.440)	3.29±0.63	1.53 (0.127)
	No	3.05±0.66		3.13±0.74	
Education level	Two-year university[a]	2.98±0.61	0.53 (0.588)	3.12±0.68	3.48 (0.033*)
	Four-year university[b]	3.06±0.66		3.19±0.72	c>a,b
	More than a master's degree[c]	2.93±0.36		3.74±0.57	
Income level	Less than USD 2,500	3.08±0.62	1.55 (0.203)	3.25±0.73	0.40 (0.757)
	USD 2,500 to less than USD 3,000	3.11±0.70		3.17±0.71	
	USD 3,000 to less than USD 3,500	2.90±0.58		3.14±0.70	
	USD 3,500 or more	2.99±0.46		3.29±0.69	
Department	General ward[a]	2.96±0.59	5.21	3.20±0.74	2.79 (0.064)
	Special ward[b]	3.35±0.70	(0.006**)	2.94±0.53	
	Outpatient clinic or other[c]	2.98±0.61	b>a,c	3.27±0.72	
Work experience	Less than 5 years	3.10±0.66	0.43 (0.734)	3.15±0.77	1.00 (0.394)
	5 years to less than 10 years	3.00±0.51		3.36±0.59	
	10 years to less than 20 years	2.99±0.65		3.12±0.71	
	20 years or more	2.99±0.68		3.21±0.70	
Job position	General Nurse	3.04±0.62	0.49 (0.612)	3.21±0.69	0.23 (0.794)
	Charge Nurse	2.94±0.77		3.13±0.78	
	Head Nurse or higher	3.09±0.49		3.15±0.73	
Work type	Rotational shift work (night work)	2.95±0.61	-2.27	3.23±0.71	1.09 (0.277)
	Fixed shift work	3.15±0.65	(0.024*)	3.12±0.71	

Data expressed as mean±standard deviation.
*P<0.05, **P<0.01; assessed through independent t-test or one-way analysis of variance

Table 3: Differences in empowerment and professional quality of life based on participants' general characteristics (n=218)

Variable	*Categories*	*Empowerment*	*t/F (P)*	*Professional quality of life*	*t/F (P)*
Sex	Male	3.40±0.54	-0.95 (0.341)	3.40±0.47	-2.14
	Female	3.59±0.95		3.35±0.56	(0.033*)
Age	Under 30 years[a]	3.36±0.60	3.13 (0.027*)	3.40±0.48	1.30 (0.277)
	30-34 years[b]	3.30±0.55	d>b	3.52±0.48	
	35-39 years[c]	3.35±0.52		3.41±0.49	
	40 years or over[d]	3.58±0.50		3.79±0.46	
Marital status	Married	3.49±0.51	2.45 (0.015*)	3.50±0.48	2.84
	Single	3.30±0.61		3.31±0.49	(0.005**)
Religion	Yes	3.55±0.51	2.77	3.54±0.47	2.65

Table 3: Continued…

	No	3.33±0.57	(0.006**)	3.36±0.49	(0.009**)
Education level	Two-year university[a]	3.38±0.54	2.42 (0.091)	3.39±0.45	4.04 (0.019*)
	Four-year university[b]	3.40±0.54		3.41±0.50	a,b<c
	More than a master's degree[c]	3.78±0.78		3.85±0.54	
Income level	Less than USD 2,500[a]	3.47±0.61	4.88	3.47±0.48	1.91 (0.130)
	USD 2,500 to less than USD 3,000[b]	3.29±0.51	(0.003**)	3.37±0.52	
	USD 3,000 to less than USD 3,500[c]	3.40±0.52	d>b,c	3.40±0.44	
	USD 3,500 or more[d]	3.77±0.60		3.63±0.54	
Department	General ward	3.42±0.49	1.32 (0.271)	3.44±0.50	0.27 (0.768)
	Special ward	3.27±0.48		3.37±0.37	
	Outpatient clinic or other	3.45±0.64		3.43±0.53	
Work experience	Less than 5 years[a]	3.42±0.58	3.51 (0.016*)	3.37±0.50	0.62 (0.605)
	5 years to less than 10 years[b]	3.27±0.58	d>b	3.40±0.54	
	10 years to less than 20 years[c]	3.34±0.51		3.43±0.47	
	20 years or more[d]	3.63±0.51		3.50±0.49	
Job position	General Nurse[a]	3.35±0.54	6.63	3.39±0.49	0.96 (0.385)
	Charge Nurse[b]	3.42±0.55	(0.002**)	3.51±0.48	
	Head Nurse or higher[c]	3.75±0.54	c>a,b	3.48±0.51	
Work type	Rotational shift work (night work)	3.34±0.53	-2.31	3.40±0.51	-1.03 (0.307)
	Fixed shift work	3.52±0.58	(0.022*)	3.47±0.47	

Data expressed as mean±standard deviation.
*P<0.05, **P<0.01; assessed through independent t-test or one-way analysis of variance

Table 4 presents the results examining correlations among emotional labor, work–life balance, empowerment, and ProQOL. ProQOL was negatively correlated with emotional labor (r=-0.550, P<0.001) and positively correlated with work–life balance (r=0.680, P<0.001) and empowerment (r=0.454, P<0.001).

Table 4: Correlations among emotional labor, work–life balance, empowerment, and professional quality of life (n=218)

Variable	***Emotional labor***	***Work–life balance***	***Empowerment***	***Professional quality of life***
Emotional labor	1.000			
Work–life balance	-0.528 (<0.001***)	1.000		
Empowerment	-0.109 (0.110)	0.246 (<0.001***)	1.000	
Professional quality of life	-0.550 (<0.001***)	0.680 (<0.001***)	0.454 (<0.001***)	1.000

***P<0.001; assessed through Pearson's correlation

Table 5 presents the results of identifying the determinants of nurses' ProQOL. Marital status (β=0.10, P=0.029), emotional labor (β=-0.27, P<0.001), work–life balance (β=0.44, P<0.001), and empowerment (β=0.28, P<0.001) were found to predict nurses' ProQOL, with ProQOL increasing with decreased emotional labor and increased work–life balance and empowerment. These factors explained 62.1% of the variance in ProQOL (F=42.86, P<0.001).

Table 5: Factors affecting nurses' professional quality of life

Variable	*B*	*Standard error*	*β*	*t*	*p*
(Constant)	1.99	0.26		7.76	<0.001***
Sex (1=male, 0=female)	0.15	0.12	0.06	1.28	0.201
Marital status (1=married, 0=single)	0.10	0.05	0.10	2.20	0.029*
Religion (1=yes, 2=no)	0.05	0.05	0.05	1.17	0.243
Education level (ref. two-year university)					
Four-year university	0.04	0.05	0.04	0.87	0.386
More than a master's degree	0.16	0.11	0.07	1.49	0.139
Emotional labor	-0.21	0.04	-0.27	-5.34	<0.001***
Work–life balance	0.31	0.04	0.44	8.33	<0.001***
Empowerment	0.25	0.04	0.28	6.10	<0.001***

Durbin-Watson=1.899, F=42.86, *P*<0.001, R^2=0.621, adjusted R^2=0.607, tolerance=0.705–0.932, variance inflation factor=1.073–1.534

*P<0.05, ***P<0.001; assessed through multiple regression analysis

Discussion

We obtained several insightful results. First, the average score for emotional labor was 3.03±0.63. Among the sub-factors, the highest average score was for the frequency of emotional expression, followed by the carefulness of emotional expression and emotional dissonance. Our results regarding the subfactors of emotional labor align with the results of previous studies involving nurses in nursing hospitals and public health centers (17,18). One reason for the high score on the frequency of emotional expression could be that nurses must suppress their personal emotions frequently when they interact with medical staff and people from other departments to match the emotions required by the organization. Considering this, nurses' emotional labor should be regularly evaluated, and hospital administrators should implement management measures and education programs based on the evaluations.

Second, the average score for work–life balance was 3.19±0.71. Among the sub-factors, the highest average score was for work–family balance, followed by work–growth balance and work–leisure balance. The low score on work–leisure balance could stem from the fact that nurses' shifts and work patterns change frequently, making it difficult to engage in regular leisure activities, such as participating in clubs (19). Therefore, nurses' welfare should be improved at the organizational level. Policies improving nurses' work environment, such as the provision of rest facilities and rest periods, must be implemented nationwide.

Third, the average score for empowerment was 3.41±0.56. Among the sub-areas, the highest average score was for meaning, followed by competence, self-determination, and impact. The reason for the high score on meaningfulness could be that nurses consider their work important when their values, beliefs, and actions align with organ-

izational goals (20). In contrast, low scores on influence could be because nurses believed that their influence in organizational decision-making was low (20). Therefore, to increase empowerment, it is important that nurses find their work meaningful. Additionally, it is necessary to develop and implement empowering programs so that nurses can exercise self-determination and influence in the organization and control their abilities and work performance.

Fourth, nurses' ProQOL was negatively correlated with emotional labor and positively correlated with work–life balance and empowerment. Jung and Jeong (21) targeted clinical nurses and found a positive relationship between work–life balance and ProQOL. Finally, emotional labor, work–life balance, and empowerment were found to determine nurses' ProQOL. Marital status, emotional labor, work–life balance, and empowerment explained 62.1% of the variance in nurses' ProQOL. Among these variables, work–life balance had a large influence. This supports the results of this study, which targeted nurses as a professional occupation, as previous studies have shown that work-life balance has a positive effect on the concept of lifestyle reflecting modern social issues (22). These results suggest that it is necessary to develop and implement programs that increase empathy satisfaction, a sub-item of ProQOL, and reduce empathy fatigue, burnout, and secondary traumatic stress.

The ProQOL of this study showed significant differences in terms of sex, marital status, religion, and education level. This finding was similar to the findings of a study conducted by Shin and Kim (23), which showed significant differences by age, marital status, position, clinical experience, and work type. The findings of the present study were also similar to the findings of a study involving oncology nurses and a study involving emergency room nurses, conducted by Kim et al. (24) and Kim and Choi (25), respectively, both of which showed differences by age, job position, and work experience. The findings of Kim and Choi (25) also revealed significant differences by marital status. The high ProQOL of male nurses may be explained in relation to the fact that the intensity of women's housework is traditionally high in Korean society. In addition, the high ProQOL of married and religious people may due to the psychological support provided by their family and religion. Finally, the high ProQOL of those with graduate school or higher education may be because environmental factors supporting the level of completed education were included in this study.

It is thought that the ProQOL of nurses can be improved when they are supported in maintaining a work-life balance and are provided with measures to reduce the intensity of emotional labor. Excessive workload, shift work, housework, pregnancy, childbirth, and childrearing are difficulties that are commonly pointed out by nurses (26). Fundamentally, securing and maintaining an appropriate level of nursing staff deployment is a basic prerequisite for maintaining ProQOL. Appropriate nursing staff deployment not only reduces the intensity of emotional labor and the possibility of health risks faced by nurses, but also lowers nursing errors, which can be expected to improve the productivity of quality medical care and medical services. In practice, observing appropriate working hours is important for maintaining work-life balance, especially work-family balance (7). To this end, an in-depth review of shift work improvement measures, including night and weekend work, working on public holidays, and overtime during working hours, is necessary.

This study had some limitations. First, 96.3% of the participants were female. Therefore, there are limitations in determining the significance of the results in terms of sex. Second, this study targeted nurses working in one specific region. Therefore, the results may not be generalizable to all nurses. Third, the sample size was not large, and the results may be confined to Korean culture and the nursing sector. Nevertheless, the results of this study provide foundational data for developing intervention programs that improve nurses' ProQOL.

Conclusion

To enhance Korean nurses' ProQOL, it is essential to develop measures that help them create work–life balance, which may include interventions that decrease their emotional labor and increase empowerment.

Journalism Ethics Considerations

Ethical issues (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Conflict of Interest

The authors declare no conflicts of interest.

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