

Original Article

Working Environment, Empathic Concern and Compassion Fatigue in Female Staff Nurses

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Abstract

Objective: The study was conducted to assess the relationship between working environment, empathic concern and compassion fatigue among female staff nurses.

Study design: It was a correlational study.

Place and duration of study: The study was conducted at Sonex Diagnostic Centre, in Rawalpindi, from July 2024 to February 2025.

Material and Methods: The study was conducted during October 2021 to August 2022, 190 nurses with an age range of 19 -58 (M = 30.79, SD = 7.34) years from different hospitals in Lahore were approached.

Results: The work experience of the nurses was reported 8.65+6.28 years with the average 6.91+1.94 working hours daily. The results concluded that self-realization in work environment is negatively associated with burnout ($r = -.31, p < .01$) and positively related to empathic concern ($r = .16, p < .05$). It was also found that workload is positively associated with secondary traumatic stress ($r = .17, p < .01$). Further, conflict ($r = .27, p < .01$) and nervousness ($r = .37, p < .01$) in work environment are positively associated with burnout and secondary traumatic stress. Results also showed that self-realization negatively ($\beta = -.27, p < .001$) and conflicts positively ($\beta = .20, p < .05$) predicted the burnout in female staff nurses. Further, conflict ($\beta = .33, p < .001$) and nervousness ($\beta = .15, p < .05$) in work environment positively predicted secondary traumatic stress. However, empathic concern did not predict any aspect of compassion fatigue.

Conclusion: This study identifies relationship of working environment, and empathic concerns to compassion fatigue (burnout and secondary traumatic stress) in female staff nurses. So, this study may be helpful in devising strategies to improve hospital environment as well as to reduce compassion fatigue in nurses. Further studies on male staff nurses is recommended.

Keywords: Compassion Fatigue, burnout, secondary traumatic stress, empathic concerns, female staff nurses.

1. Introduction

For female staff nurses, the work environment can be a significant source of stress due to poor schedule management, excessive workload, and challenging relationships with colleagues.⁽¹⁾ Exposure to stressful events such as illness, suffering or death of patients makes them susceptible to develop stress, particularly when they struggle to manage their empathic feelings. Empathy, the ability to understand and share the feelings of another, is a fundamental aspect of healthcare, is essential for achieving positive

outcomes for both patients and nurses.^(2,3) Many hospitals overlook the importance of the working environment, which negatively impacts nurses' performance.⁽⁴⁾ Barriers to good nursing care include issues related to self-realization, long working hours, heavy workload demands, workplace stress, and inadequate staffing. Leadership and the capabilities of nurse leaders significantly influence nurses' well-being in hospitals.⁽⁵⁾ Self-realization is understood as a concept of freedom, which can be divided into two

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aspects: the "opportunity-concept" and the "exercise-concept." The opportunity-concept refers to the ability to do whatever one wants as long as the opportunity is available. In this type of freedom, self-realization is associated with self-centered attitude. This is considered a negative concept of freedom. The exercise-concept pertains to having control over one's life and the power to shape one's life. The freedom understood as exercise-concept is associated with moral ideas. The individual is as free as they know themselves. This is viewed as a positive concept of freedom. ⁽⁶⁾

Despite advancements in the healthcare system aimed at ensuring patient safety, the impact of nurses' long working hours is a growing concern worldwide. Extended working hours lead to shorter rest periods between shifts, increasing the risk of burnout, job-related hazards, and health issues for nurses. ⁽⁷⁾ Working overtime is associated with various negative outcomes, including catheter-associated urinary tract infections, poor sleep quality, pressure ulcers, fatigue, medication errors, injuries from falls, hospital-acquired infections, and needle stick injuries. It has been found that registered nurses often work more than 60 hours per week. Policies regarding working hours significantly affect patient care and outcomes. ⁽⁸⁾ To address these issues, nurse educators should incorporate concepts of safety climate and cooperation into nursing programs, ensuring that students are aware of safety concerns and understand the importance of collaboration and teamwork. ⁽⁹⁾

Empathy, is crucial in psychiatric nursing, forming the foundation of the therapeutic nurse-client relationship. ⁽¹⁰⁾ However, empathy can also contribute to compassion fatigue. In nursing, empathy manifests in various forms which includes affective empathy, cognitive empathy and

behavioral or ethical empathy, compassionate empathy and dispositional empathy. The term affective empathy describes the ability of a nurse to share internal emotional state of patients. ⁽¹¹⁾ Cognitive empathy involves the intellectual skills to understand patient's perspective. ⁽¹²⁾ Behavioral empathy involves expressing empathic feelings through observable behavior to show understanding and connect with another person's feelings. It can involve communication skills such as, active listening and cooperation with patients. ⁽¹³⁾ Compassionate empathy occurs when an individual feels another person's pain and takes action to alleviate it and improve their situation. ⁽¹⁴⁾ Inherent ability to manage and feel as others do is known as dispositional empathy. The clinical environment significantly impacts nurses' ability to exhibit empathy. Generally, nurses demonstrate high empathic behavior, yet ICU nurses often show lower levels of empathy. ⁽¹⁵⁾ Patient behavior also affects empathy; nurses tend to be more empathetic towards those experiencing grief and sadness and less so towards patients who are hostile, demanding, or insulting. ⁽¹⁶⁾ Additionally, increased work pressure can cause physical, mental, and emotional strain, leading to compassion fatigue and diminishing the ability to empathize effectively. ⁽¹⁷⁾

Compassion fatigue comprises two main components: burnout and secondary traumatic stress. These elements can manifest in the workplace, leading employees toward emotional exhaustion. ⁽¹⁸⁾ For female staff nurses, experiencing compassion fatigue can severely impact their physical and mental health, subsequently affecting job performance. This condition may cause nurses to lose their objectivity and empathy towards patients, potentially leading them to avoid situations that trigger empathy,

thereby diminishing their performance and competence.⁽¹⁹⁾

Literature suggests high empathy is associated with increased compassion fatigue, higher resilience and self-care can mitigate this risk.⁽²⁰⁾ Nurses who experience lower levels of burnout often work in environments with less complexity, manageable workloads, supportive atmospheres, and clear expectations, which also correlate with higher job satisfaction.^(21,22) Additionally, work experience significantly influences empathy levels,⁽²³⁾ while other demographic factors such as age, marital status, work shift, having children, and type of employment also affect empathic concerns.⁽²⁴⁾ Given this context, the current study assesses the relationship between the working environment, empathic concern, and compassion fatigue in female staff nurses. The hypotheses formulated were: 1) There was relationship between the working environment, empathic concern, and compassion fatigue (burnout and secondary traumatic stress), and 2) Working environment and empathic concern predicted compassion fatigue (burnout and secondary traumatic stress) in female staff nurses.

2. Materials & Methods

This study was conducted from October 2021 to August 2022 at the Department of Applied Psychology, University of Management and Technology Lahore. In this study, correlation research design was used to analyze the relationship among study variables. The sample comprised 190 nurses of range 19-58 years ($M = 30.79$, $SD = 7.34$) as calculated by G power formula ($N > 50 + 8m$, m denotes the number of predictors in the model, so sample (N) is greater than $50 + 8 \times 9 = 122$ participants). Data was collected physically from three public hospitals of

Lahore by employing purposive sampling technique. Since this study wanted to examine the high-pressured environments, female staff nurses from different public hospitals were included and nurses from private hospitals were not included.

Before conducting the study, the Ethical approval was sought from the institution with Ref. No. ICPY/20/189. Further permission was sought from authors of the scales. The data was collected through self-report measures, after getting a verbal and written consent of the participants. The researcher followed all the ethical considerations. The volunteer participation and the right to withdraw was given. The following scales were administered along with demographic sheet.

Working environment was measured by using Working environment scale.⁽²⁵⁾ It consisted of 10 items scale. It has four subscales: self-realization, conflict, workload and nervousness. Items were rated on a 5-point Likert scale (1= Not at all, 2= To a small extent, 3=To some extent, 4=To a large extent, 5=To a very large extent). High scores indicated high score in respective domain. The alpha reliability of the subscales ranged between .62 to .85.

Empathic concern was measured by using Empathic Concern Scale.⁽²⁶⁾ The scale consisted of 7 items. It is a 5-point Likert scale with responses ranging from 0 to 4 (0 = it does not describe me well, 4 = it describes me very well). High scores indicated high empathic concerns. The alpha reliability of the scale ranged from 0.74 to 0.96.

Compassion Fatigue of nurses was measured by using burnout and secondary traumatic subscales of Professional Quality of Life Scale.⁽²⁷⁾ It consisted of 20 items with 10 items each subscale. The responses are on 5-point Likert scale ranging from 1 to 5 with, (1 = Never, 2 = Rarely, 3 =

Sometimes, 4 = Often, 5 = Very Often). Alpha reliability ranged from 0.7 to 0.8. High scores indicate higher secondary traumatic stress.

For analysis, SPSS version 22 was used. After screening data, reliability analysis was run on all the scales (Table 1). Secondly, the Pearson product-moment correlation analysis was run to deduce the relationship between working environment, empathic concern and compassion fatigue (see Table 2). Furthermore, moderation through multiple hierarchical regression analyses was run to see the predicting role of working environment and empathic concern in determining compassion fatigue (burnout and secondary traumatic stress) (see Table 3).

3. Results

The sociodemographic characteristics indicated that the average age of the participants was 30.79 ± 7.34 years and average education was 15.99 ± 1.25 years. The average work experience was 8.65 ± 6.28 with the mean working hours 6.91 ± 1.94 . Most of the participants, 174 (91.6%) were charge nurses while a few of them, 12 (6.3%) were head nurses. Moreover, 123 (64.7%) of the nurses were married. Most of the nurses, 114 (60%) had children less than 3 and 76 (40%) of the nurses had children 3 and above. 118 (62.1%) of the nurses had siblings below 5. The birth order indicated that only 4 (2.1%) of the nurses were only child, 45 (23.7%) of the nurses were first born, 110 (57.9%) of the nurses were middle children and 20 (10.5%) of the nurses were last born. The family system indicated that 104 (54.7%) belonged to the nuclear family system and 83 (43.7%) nurses belonged to the joint family system. Most of the nurses, 138 (72.6%) had below 5 dependents, whereas 52 (27.4%) had number of dependents 5 and above. 146 (76.8%) of the nurses had morning

shifts, 39 (20.5%) nurses had evening shifts, and 2 (1.1%) of the nurses had night shift.

Table 1 shows descriptive statistics

Measures	M	SD	Range	Cronbach's α
Work Environment Scale				
Self-realization	14.72	2.46	8-20	.85
Workload	6.22	1.47	2-10	.90
Conflict	5.27	1.78	2-10	.62
Nervousness	4.97	1.53	2-10	.66
Empathic Concern Scale	21.21	3.43	12-28	.54
Compassion Fatigue				
Burnout	23.86	5.48	10-45	.67
Secondary traumatic stress	27.04	6.23	14-45	.71

The results of the table 1 showed descriptive statistics and internal consistency of all the measures used. The results showed the reliability of working environment scale alpha reliability ranged from .62 to .90 with self-realization .85, workload .90, conflict .62 and nervousness .66. The subscale empathic concern showed alpha reliability .54. Further, burnout and secondary traumatic stress Professional Quality of Life Scale showed .67 and .71 reliability.

Table 2 shows the relationship of working environment

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Age		.08	.33**	.85**	.19*	.05	-.16*	-.06	.01	-.01	-.23**	-.18*
2. No. of Dependents			-.02	.10	-.01	.23**	-.01	-.14	.01	.18*	-.03	-.11
3. Family Monthly Income				.36**	-.02	.02	-.05	-.07	.03	-.28**	-.02	.05
4. Work experience (years)					.20**	.07	-.12	-.02	.05	-.05	-.21**	-.19**
5. Working hours						-.05	-.03	.19*	.02	-.00	.18*	.19*
Working Environment												
6. Self-realization							.04	.03	-.18*	.16*	-.31**	-.12
7. Workload								.16*	.17*	.02	.13	.17*
8. Conflict									-.02	.09	.27**	.37**
9. Nervousness										-.17*	.16*	.15*
10. Empathic concern											-.074	.05
Compassion Fatigue												
11. Burnout												.53**
12. Secondary traumatic stress												

Table 2 shows the relationship of working environment (self-realization, workload, conflict and nervousness) and empathic concern with compassion fatigue (burnout, and secondary traumatic stress) in female staff nurses. It was found that self-realization in working environment was negatively related to burnout ($r = -.31, p < .01$), while conflicts ($r = .27, p < .01$) and nervousness ($r = .16, p < .05$) in work environment were positively related to burnout. Further workload ($r = .17, p < .05$), Conflict ($r = .37, p < .01$) and nervousness ($r = .15, p < .05$) in working environment were positively related to secondary traumatic stress in female staff nurses. The results also showed that self-realization showed significant positive ($r = .16, p < .05$), and nervousness ($r = -.17, p < .05$) reported negative relationship with empathic concern in female staff nurses. Further, the relationships of demographic variables with study variables were also assessed. The results showed that age and work experience were negatively related to compassion fatigue (burnout and secondary traumatic stress). Further work hours were positively related to conflicts and compassion fatigue (burnout and secondary traumatic stress). Further, it was found that family monthly income showed negative relationship with empathic concern ($r = -.28, p < .01$) in female staff nurses.

The overall variance explained by burnout aspect of compassion fatigue was 22% with $F(10,132) = 3.71, p < .001$. The results indicated that working hours positively predicted burnout ($\beta = .22, p < .001$) in female staff nurses. The results also showed that self-realization negatively ($\beta = -.27, p < .001$) and conflict positively predicted burnout ($\beta = .20, p < .01$) in female staff nurse. However, it was found that empathetic concern did not predict the burnout.

Table 3 shows Overall Variance

Predictors	Compassion Fatigue			
	Burnout		Secondary Traumatic Stress	
	β	ΔR^2	β	ΔR^2
Step 1		.10		.11
Constant				
Age	-.24		.06	
Dependents	.02		-.10	
Family income	.02		.13	
Work experience	-.05		-.32**	
Work hours	.22***		.23***	
Step 2		.12		.13
Self-realization	-.27***		-.06	
Workload	.04		.04	
Conflict	.20*		.33***	
Nervousness	.74		.15*	
Step 3		.00		.01
Empathic concern	-.05		.08	
R^2	.22		.24	
$F(10, 132)$	3.71***		4.15***	

The overall variance explained by secondary traumatic stress aspect of compassion fatigue was 24% with $F(10,132) = 4.15, p < .001$. The results also reported that work experience negatively ($\beta = -.32, p < .01$) while working hours positively predicted ($\beta = .26, p < .001$) secondary traumatic stress in female staff nurses. The results also showed that conflict ($\beta = .33, p < .001$) and nervousness in working environment ($\beta = .15, p < .05$) positively predicted secondary traumatic stress among female staff nurses. However, empathic concern did not predict it.

4. Discussion

The present study highlighted that working environment, empathic concern and compassion fatigue in female staff nurses are strongly interrelated to each other. Numerous studies have been conducted to explore the relationship between the study variables that support our findings.

The present study highlighted significant negative relationship between self-realization in work-environment and burnout in female staff nurses which is consistent with the previous findings of

the study conducted by Cetinkaya ⁽²⁸⁾ aimed to understand relationship between self-realization and burnout among school psychologists. The results reported that self-realization is significantly negatively related to burnout. It was also observed that female nurses experienced more burnout than male nurses.

The present study also highlighted negative relationship between nervousness and empathic concern in female staff nurses which is supported by previous study conducted Rozo et al. ⁽²⁹⁾ that explored situational factors associated with burnout among emergency department nurses. Five nurses were interviewed for the purpose of this study. In an interview, it was revealed that nurses perceive stress or nervousness in the workplace as a part of their job and they are not fully able to interact with patients which diminishes their ability of empathic concern.

This study highlights that nervousness in working environment has positive relationship with burnout aspect of compassion fatigue in female staff nurses. Similar results are observed in the study by Reyes et al. ⁽³⁰⁾ determining relation between job satisfaction and burnout in Spanish periodontists. Data was collected from 170 participants. Results showed that there are multiple triggering factors for working stress or nervousness leading to professional burnout. These findings are supported by another previous study conducted by Ilhan et al. ⁽³¹⁾ aimed to explore burnout and its correlates in nursing staff. The data was collected from 418 nurses. The study showed that feeling anxious about future is also a factor influencing burnout. So, feeling increased tension and nervousness can reduce the mental capacity of the individual that can lead to burnout.

Our study concluded significant positive relationship between conflict in workplace and burnout among female staff nurses which is consistent with the previous findings of the study

conducted by Seidler et al. ⁽³²⁾ aimed to examine the relationship between psychosocial working conditions and burnout. The results concluded that psychosocial working conditions such as high job demands, emotional demands and low social support which creates conflicting situations for people was associated with burnout. It is also supported by another study conducted by Glasberg et al. ⁽³³⁾ aimed to explore the sources of burnout among healthcare employees. 30 healthcare managers were interviewed. Results revealed that conflicts arise when there is continuous reorganization and downsizing of the employees which leaves employees with excessive responsibilities and demands. This eventually leads to burnout.

Our results revealed that empathic concern did not predict burnout in nurses. This can be due to the professional experience of the nurses that seems to desensitize them to the pain of their patients. Their experience contributes to the down-regulation of empathic concern as revealed by study conducted by Gleichgerricht & Decety ⁽³⁴⁾ aimed to explore different aspects of empathy, pain perception and compassion fatigue among 1199 physicians. The more nurses are exposed to painful experience of other people, the more desensitized they are to it and hence, empathic concern has no longer impact on the professional quality of life of nurses. This is also supported by another study conducted by Jiang et al. ⁽³⁵⁾ which aimed to investigate the levels of job burnout and its influencing factors among older nurses. 520 registered nurses were surveyed. The results showed that job burnout varies with the length of work years. Nurses who worked for fewer years had higher job burnout than nurses who worked for more than twenty years.

The present study has the following limitations. The present study was conducted on the nurses in government hospitals of Lahore. Future studies should be conducted in private hospitals of different localities of Pakistan. Moreover, only

female nurses were considered for the research. The male nurses also the OTS should also be considered for the future researches. A comparative study on different working units must be done in future. Participants were surveyed in morning and evening shift only. Future researches must consider surveying in night shift.

Conclusion:

This study provides an explanation of increased level of compassion fatigue due to working environment in hospitals as working environment including self-realization, conflicts, nervousness, and workload showed relationships with compassion fatigue. However, being able to use their abilities motivates them to help their patients better, thus increasing their empathic concern and reduces their levels of compassion fatigue. It was found that as the age and work experience of nurse's increase, it makes them less vulnerable to developing compassion fatigue.

Disclosure /Conflict of interest:

Authors declare no conflict of interest.

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