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Enhancing Nurses' Professional Quality of Life: A Psycho-Educational Intervention Study

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ABSTRACT

The nursing staff's professional quality of life is significantly impacted by their exposure to other people's trauma and anguish on the job. By reducing secondary trauma, compassion fatigue, and burnout, the project intends to develop a psycho-education-based solution that will enhance nurses' professional quality of life. **Objective:** To assess the impact of a psycho-education-based intervention on nurses' professional quality of life, stress, anxiety, depression, and resilience. **Methods:** This quasi-experimental study assessed stress, anxiety, depression, and resilience through pre- and post-testing. Purposive sampling was used, and participants were assigned to intervention or control groups without randomization. The ProQOL, BRS, and DASS scales measured outcomes. Data analysis included repeated measures ANOVA for group differences and bivariate correlation analysis. **Results:** The results showed that the intervention doesn't have an effect on compassion satisfaction and stress while it significantly decreases burnout, secondary trauma stress, and depression. The current study also found out an increase in the levels of anxiety for the participants at the assessment after intervention. The compassion satisfaction significantly increased, while burnout, secondary trauma, anxiety, stress, and depression decreased significantly. Furthermore, burnout showed to be negatively correlated with resilience, while secondary trauma stress was not correlated with resilience. Compassion fatigue was also positively correlated with resilience. **Conclusion:** The research concludes that the interventions based on psycho-education are significant to be utilized in the healthcare sector.

INTRODUCTION

Although compassion and concern have been frequently regarded as vital traits in healthcare, nurses who might be exposed to people's distress and pain on a regular schedule are at danger of developing emotional exhaustion [1]. Charles Figley invented this terminology of compassion fatigue within the 1980's. Compassion fatigue has been extensively accepted by the psychiatric profession from its very establishment [2]. Similarly, Professional burnout, also known as work - related emotional and physical exhaustion, is a condition of depletion in workers caused by long-term contact to employment difficulties [3]. Recurrent exposure to a patient's trauma can result in secondary trauma stress disorder (STS), a disease that resembles the symptoms of post-traumatic stress disorder (PTSD). Nurses who work with the critically ill, injured, or people at the end of their lives for long periods of time are more vulnerable to the detrimental consequences

of indirect trauma [4]. The compassion satisfaction of oncology healthcare workers is low, according to Ortega-Compos et al. (2020). Additionally, they experience somewhat higher degrees of compassion fatigue and comparatively higher levels of burnout [5]. Emergency responders including nursing staff have been found to be at an increased danger of covert experience of traumatic experience and, as a result, will have higher susceptibility to the development for secondary traumatic stress indicators. Employee satisfaction or contentment from work has been the most powerful determinant of secondary trauma stress signs [6]. Notwithstanding growing concerns about the welfare of healthcare professionals, there is a dearth of study on secondary trauma stress (STS) and compassion fatigue among nurses in Pakistan. According to one study, 94.2% of nurses reported average degrees of burnout and 84.7% reported

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average levels of compassion fatigue [7]. These statistics highlight a critical gap in research and intervention strategies addressing occupational stress in Pakistani nurses. Resilience, according to literature has been recognized to be an important significant predictor against the negative consequences of stressful and traumatic experiences on psychological and emotional wellbeing [8]. In terms of compassion fatigue, a few studies have shown that resilience can help reduce the weariness that comes with providing care [9]. Acknowledging this process is vital for developing interventions targeted at improving nurses' psychological health so that they can provide high-quality, efficient, and empathetic services to individuals [10]. The level of distress varies by demographic and work-related factors, with younger nurses, those with fewer years of experience, and those working in critical care and psychiatric settings exhibiting higher levels of burnout and STS [11]. The effectiveness of psycho-educational interventions in healthcare professionals, especially in low- and middle-income countries, has not been thoroughly studied, despite the fact that international studies have investigated intervention strategies like mindfulness training, stress management workshops, and Cognitive-Behavioral Therapy (CBT)-based programs [12]. By putting into practice and assessing a psycho-educational intervention intended to enhance nurses' resilience, psychological health, and professional quality of life, this study aims to close this knowledge gap. The Professional Quality of Life (ProQOL) Model by Stamm (2010), which views professional well-being as a balance between compassion fatigue and compassion fulfillment, serves as the foundation for the intervention [13]. Compassion satisfaction refers to the positive psychological benefits of caregiving, while compassion fatigue encompasses both burnout and secondary trauma stress. The intervention began with discussions in a psychoeducational group setting on issues such as resiliency, awareness, compassion, and autonomy. It tackles the fundamental reasons and consequences of excessive stress, burnout, and secondary trauma as a method which integrates psychoeducation with treatment alliance and assistance to promote coping and psychological wellness both within and beyond the profession [14]. This study examines whether a psycho-educational intervention lowers psychological discomfort and enhances nurses' professional quality of life. Assessing the prevalence of burnout, compassion fatigue, and secondary trauma stress among nurses working in acute care and psychiatric settings, assessing how well the intervention reduces distress and builds resilience, investigating the relationship between resilience and professional quality of life, and figuring out whether the effects of the intervention last for a month are all part of the goals. According to the hypotheses, professional quality of life scores will improve after the intervention and stay stable at follow-up; resilience will have a negative correlation with burnout but no significant relationship with secondary trauma stress; and the intervention will significantly reduce depression, burnout, and secondary trauma stress.

This study offered important insights into how structured interventions might reduce psychological distress and improve nurses' professional quality of life, which is crucial given the growing awareness of mental health issues among frontline healthcare workers.

METHODS

This quasi-experimental study was conducted from June 2022- November 2022 at United-Christian Hospital and the Punjab Institute of Mental Health, Lahore, Pakistan. Ethical approval was obtained from the Institutional Research Board and Ethics Committee at Forman Christian College (IRB Ref: IRB-333/05-2022), and all participants provided written informed consent. Using purposive sampling, registered nurses with at least one year of clinical experience were recruited, while those with less experience, on extended leave, or retired were excluded. Participants were assigned to an intervention group, which received a structured two-hour psycho-education seminar, or a control group, which received no intervention. The seminar covered secondary trauma, burnout, compassion fatigue, and stress management. Assessments were conducted at three time points: baseline (pre-intervention), immediately post-intervention, and at a one-month follow-up. Data collection utilized validated psychological scales, including the Professional Quality of Life Scale (ProQOL), Depression, Anxiety, and Stress Scale-21 (DASS-21), and Brief Resilience Scale (BRS), all demonstrating strong internal consistency (Cronbach's alpha: 0.72–0.94). Statistical analysis, performed using SPSS v.26, included descriptive statistics, normality tests, one-way repeated measures ANOVA, and Pearson correlation, with significance set at $p < 0.05$. Ethical guidelines were strictly followed, ensuring participant confidentiality, voluntary withdrawal, and referrals to therapists if needed. This study design ensured methodological rigor while evaluating the impact of psycho-education on nurses' professional quality of life.

RESULTS

The study examined how a psycho-educative seminar affected the psychological distress and work-related quality of life of healthcare professionals. The participants' demographic details were compiled in table 1. With an average of 6.26 years of work experience (SD = 5.07), the mean age was 30.50 years (SD = 6.58). Most participants were female (84.1%), had a bachelor's degree (81.7%), and were employed in gynecology (52.4%).

Table 1: Micro-Hardness of Dental Tissues Treated with Lithium

Variables	Mean ± SD	%
Age	30.50 ± 6.58	–
Years of Experience	6.26 ± 5.07	–
Gender (Women)	–	84.1
Education (Bachelor's)	–	81.7
Department (Gynecology)	–	52.4

Cronbach's alpha values for reliability analyses ranged from 0.70 to 0.95, indicating strong internal consistency for all scales. The Brief Resilience Scale exhibited acceptable inter-item correlations (r = 0.35). Table 2 presented the reliability coefficients.

Table 2: Reliability of Study Scales

Variables	Cronbach's α
Compassion Satisfaction	0.83
Burnout	0.75
Secondary Trauma Stress	0.82
Depression	0.95
Anxiety	0.70

Repeated measures ANOVA revealed significant improvements in key psychological outcomes following the intervention (Table 3).

Table 3: Repeated Measures ANOVA: Pre- and Post-Intervention Scores

Variables	F	p	ηp²
Burnout	30.053	<0.001	0.276
Secondary Trauma Stress	23.390	<0.001	0.226
Depression	11.899	0.001	0.129
Anxiety	8.468	0.005	0.096

Figure 1 illustrated the mean scores for all subscales measured before and after the intervention.
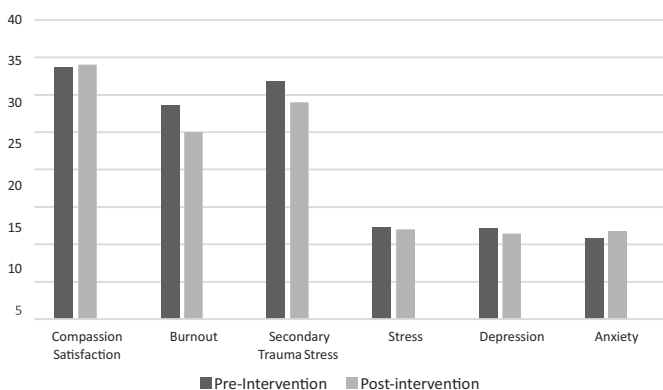
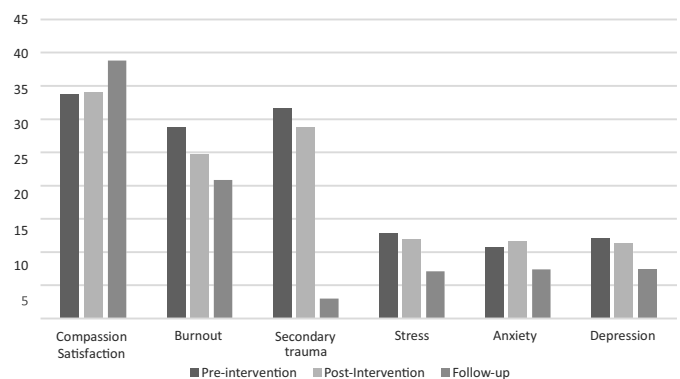**Figure 1:** Pre-intervention and Post-Intervention Mean scores for all Subscales

The experimental group showed reduced Burnout (F (1,80) = 30.053, p < 0.001, ηp^2 = 0.276). Depression (F (1,80) = 11.899, p = 0.001, ηp^2 = 0.129), and Secondary Trauma Stress (F (1,80) = 23.390, p < 0.001, ηp^2 = 0.226). There was a substantial decrease in anxiety as well (F (1,80) = 8.468, p = 0.005, ηp^2 = 0.096). These improvements were sustained at the one-month follow-up (Table 4).

Table 4: Follow-Up Effects of the Intervention

Variables	F	p	ηp²
Burnout	64.165	<0.001	0.772
Secondary Trauma Stress	61.415	<0.001	0.759
Depression	30.807	<0.001	0.612

Figure 2 illustrated the mean scores for all subscales at Pre-Intervention, Post-Intervention, and One-Month Follow-Up, highlighting sustained improvements in burnout, secondary trauma, depression, and resilience, with a transient increase in anxiety.

Figure 2: Pre-Intervention, Post-Intervention and One-Month Follow-Up Mean Scores For Subscales

The protective impact of resilience in reducing work-related stress was shown by correlation analysis, which showed that resilience was inversely correlated with burnout (r = -0.222, p = 0.046) and positively correlated with compassion satisfaction (r = 0.244, p = 0.027) (Table 5). With long-lasting effects at follow-up, the psycho-educative intervention dramatically enhanced healthcare professionals' psychological outcomes and professional quality of life. The results demonstrate how focused interventions can improve resilience and lessen stress at work (Table 5).

Table 5: Correlations between Resilience and Outcomes

Variables	Mean ± SD	p-Value
Compassion Satisfaction	0.244	0.027
Burnout	−0.222	0.046

DISCUSSION

In order to improve the nursing staff's compassion satisfaction and address secondary trauma and burnout, the research study sought to develop an intervention. In the end, each of these elements influences the nurses' professional quality of life while they are employed at various institutions. The study also focused on the psychological distress, namely stress, anxiety and depression. The research study was designed by dividing the participants into control group and experimental group. The intervention was based on psycho-education

and a two hours seminar was created. Both the groups were tested before and after the intervention on three measures of professional quality of life, psychological distress and resilience. It is well researched that there is a higher prevalence of burnout in nurses while their levels of compassion satisfaction are lower, therefore making this an important area of research [15]. Given their exposure to traumatic experiences, as well as other individual characteristics, nursing staff is more susceptible to secondary trauma stress. Health care workers who experience secondary trauma stress and burnout may suffer grave consequences that include sadness, emotional distress, and even suicidal thoughts. These effects may affect a considerable section in the profession. The necessity to identify, assess, and manage burnout is a primary concern since health care personnel are constantly in danger [16]. The intervention that is studied in this research is based on psychoeducation, self-awareness and skills training. Exercises for managing stress and burnout at work were also included in the intervention. For the experimental group, the psycho-education seminar included pre- and post-testing and a one-month follow-up. The current study's hypothesis was that the psycho-educative intervention would enhance the nursing staff's professional quality of life and lessen psychological discomfort. The results suggest that the intervention doesn't have an effect on compassion satisfaction and stress while it significantly decreases burnout, secondary trauma stress, and depression. Another finding that was unexpected was that anxiety increased at the post assessment. The follow-up showed that the compassion satisfaction levels of the experimental group got significantly higher. Moreover, the seminar did not focus much on the concept of compassion satisfaction. This limitation is another reason for not getting a significant increase in the nurses' level of compassion satisfaction. Other factors that contribute towards the development of compassion satisfaction include personality differences among individuals as well as work environment [17]. Both these factors were not considered in the current research study, which could explain the results. In line with findings from other research showing the long-term advantages of psychoeducation for healthcare professionals, long-term results showed significant improvements in all assessed variables for the experimental group [18]. Additionally, resilience showed a negative correlation with burnout and a positive correlation with compassion fulfillment; however, no significant correlation was observed with secondary trauma stress, most likely as a result of the resilience measure's narrow scope. Comprehensive resilience assessment tools could provide more accurate insights [19]. Other than resilience training, addressing institutional factors such as long working hours and

staffing shortages is essential for reducing work-related stress and psychological distress [20]. Sharing these findings with hospital management could help implement structural changes and support similar interventions to benefit healthcare professionals. The limitations of the current study included the inability to compare groups at the one-month follow-up since only the experimental group was assessed. Unmeasured factors may have influenced follow-up scores. Additionally, the resilience measure lacked comprehensive constructs, leading to inconsistencies with existing literature. Data collection was also prolonged due to limited resources and institutional support.

CONCLUSIONS

The research concludes that the interventions based on psycho-education, skills training, and self-awareness works well for the mental health issues in the healthcare sector. We also conclude that the psycho-educational seminars as a form of intervention are not only cost-effective for the institutions but also effective on reducing the psychological and mental health related issues. The healthcare departments can utilize this research as evidence for the operative use of psycho-educative interventions. The follow-up assessment results are evidence of the long-term effects of the intervention.

Authors Contribution

Conceptualization: ZK
Methodology: ZK
Formal analysis: ZK, ES
Writing, review and editing: ZK, ES

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

Source of Funding

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