

# MINDFULNESS AS A SHIELD: INVESTIGATING ITS ROLE IN REDUCING COMPASSION FATIGUE AMONG UNDERGRADUATE NURSING STUDENTS

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## ABSTRACT

### Background:

Compassion fatigue is a prevalent psychological condition among healthcare professionals, particularly in nursing students exposed to emotionally demanding clinical environments. Mindfulness, defined as a non-judgmental awareness of the present moment, has emerged as a protective factor that may alleviate compassion fatigue by enhancing emotional regulation and resilience.

### Aim:

This study aimed to investigate the relationship between mindfulness and compassion fatigue among undergraduate nursing students in selected colleges in Swat, Pakistan.

### Methods:

A cross-sectional study design was employed between March and May 2025 across various nursing colleges. A sample of 285 Bachelor of Science in Nursing (BSN) students was drawn from a population of 1,100 using Raosoft's sample size calculator. Participants were selected using a convenience sampling technique, excluding those undergoing psychiatric treatment or receiving formal mindfulness training. Data were collected using a self-administered questionnaire consisting of demographic information, the Five Facet Mindfulness Questionnaire (FFMQ), and the Professional Quality of Life Scale (PQOL, Version 5). Data analysis was performed using SPSS version 26, applying descriptive statistics and Pearson's correlation.

### Results:

The study found a significant negative correlation between mindfulness and compassion fatigue ( $r = -0.46$ ,  $p < 0.001$ ), indicating that students with higher mindfulness scores reported lower compassion fatigue levels. Additionally, higher mindfulness was positively associated with compassion satisfaction.

### Conclusion:

Mindfulness appears to be a protective factor against compassion fatigue in nursing students. Introducing mindfulness-based practices in nursing education may improve psychological well-being and support compassionate care.

### Keywords:

Mindfulness, Compassion Fatigue, Nursing Students.

## INTRODUCTION

Compassion fatigue which is sometime referred to as the cost of caring is a syndrome of emotional and physical exhaustion brought about by the long-term exposure to suffering and traumatic experiences of patients (Reeves, 2025). It causes loss of empathy, numbness of emotions, and diminished fulfilling feelings of being a caregiver (Caputo, 2021). Mindfulness, however, is a psychological state that is acquired when the focus of attention moves to the present moment without judging by its nature (Nelson et al., 2024). It enhances self-awareness, emotional regulation, and resilience. Mindfulness has become a possible approach in the context of nursing education that could assist in alleviating the problem of stress and burnout as well as managing the requirements of clinical exposure.

Compassion fatigue is an issue on the rise among the undergraduate nursing students (Yi et al., 2024). Research findings have suggested that 30% to 60 percent of student nurses experience moderate and high levels of compassion fatigue especially in the clinical placements. These numbers are even more disastrous in low-resource environments like Pakistan where nursing students have to deal with an extended patient count, a meager amount of supervisor benefit, and an augmented emotional load (Cao et al., 2021). Academic, emotional, and real patient demands make the nursing students extremely prone to early burnout and compassion fatigue that harm their psychological health and, therefore, their future professional performance (Hussain et al., 2025).

Compassion fatigue has an impact not only on the academic achievements of the students but also negatively influences their clinical competence and capability of delivering empathetic care (Goncalves and Matos, 2025). The concentration, motivation and emotional involvement are also problematic to a number of students with compassion fatigue and this may lead to corruption in their decision and decrease in patient security. In the long term, these symptoms discourage students to work in clinical positions or continue to stay in the field at all (Filipponi et al., 2024). It is, therefore, important to intervene early to spare the students of lasting emotional harm and disengagement in the field of profession.

Mindfulness provides an active and approachable coping exercise to nursing students that have to operate in emotionally charged settings (Poorhosseini Dehkordi, 2023). It has been shown that mindfulness-based activities, such as meditation, breathing and journaling exercises can be very helpful

in managing the stress levels and emotional resilience. Mindfulness contributes to a peaceful and balanced state of mind, which enables students to become more sensitive about their thoughts and feelings so that they could better respond appropriately to clinical scenarios that can be challenging (McVeigh et al., 2021). It is this emotional regulation ability that will help to prevent the build-up of stress to clinical levels as of compassion fatigue.

The article relies on the Compassion Fatigue Resilience Model that focuses on protective personalities, including mindfulness and self-awareness, as they contribute to developing resistance against emotional exhaustion (AlSubaie et al., 2024). With the help of developing present-moment awareness, mindfulness contributes to cognitive flexibility and emotional clarity that are crucial in the case of coping with challenging clinical interactions. The Mindfulness-Based Stress Reduction (MBSR) model is also useful in facilitating the teaching of mindfulness advocate in schooling institutions and foster the well-being of the student psychologically and academically in the colleges and universities (Yilmazer & Altinok, 2024).

Although the topic of mindfulness is attracting more attention, not many studies are available regarding its direct contribution to compassion fatigue among undergraduate nursing students, especially in the South Asian region (Squyres, 2023). The majority of the existing literature is Western-originated and might be partly inadequate to describe cultural, academic, and clinical complexities affecting students in Pakistan and other like countries. This evidentiary blind is why it is necessary to discuss the role of mindfulness in providing nursing students with culturally appropriate support processes in emotionally draining settings (Webb, 2023).

The value of the study is in the fact that it may assist in nursing education and mental health measures through the help of empirical evidence of the compensation produced by mindfulness in wearing down compassion. Since emotional resilience has become a valuable tool in the contemporary clinical environment, introducing mindfulness as a tool to future nurses may enhance their well-being, longevity, and longevity of their careers and help them provide patients with a higher quality of care. It is possible that this study will become relevant in the discussions on policy and curriculum to maintain a total of not only clinically competent nursing students but also

mentally and psychologically fit and stable ones in the context of the current study.

### Methodology

The research utilized a cross-sectional research design since it tried to understand the association between mindfulness and compassion fatigue among nursing students at the undergraduate level. The study took place in some nursing colleges in Swat, Pakistan in the period between March and May 2025. The research was conducted among the Bachelor of Science in Nursing (BSN) students who had successfully undergone at least one clinical placement. The respective total number of students in the institutions sampled was about 1,100. The calculation done using the Raosoft online sample size calculator obtained a minimum required sample size of 285, which would require a 95 % confidence level, 5 % margin of error, and a 50 % response distribution. To recruit participants, the authors have made use of a convenient sampling method to identify people who fit in the inclusion criteria. The study did not consider students who were receiving psychiatric treatment, as well as those who received systematic mindfulness training.

### Data Collection

The data were gathered through a questionnaire that took the form of three sections and was self and structured. The first part picked up the demographics such as the age, sex, academic year and duration of clinical exposure. The second part was to measure

how mindful an individual is by utilizing the Five Facet Mindfulness Questionnaire (FFMQ), a desirable measure of five variables of mindfulness, which includes observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience. The third section assessed compassion fatigue with the Professional Quality of Life Scale (PQOL Version 5), containing subscales of compassion fatigue, burnout and satisfaction of compassion.

### Data Analysis

Data were entered and analyzed using SPSS version 26. The demographic and the major variable data were summarized using descriptive statistics (means, standard deviation, frequencies). The correlation coefficient of Pearson was used to assess the connection between mindfulness and compassion fatigue. The p-value of <0.05 was taken to be statistically significant.

### Results and Analysis

#### Demographic Characteristics of Participants

The study included 285 nursing students, with a majority being male (73.7%) and an average age of  $22.18 \pm 2.12$  years. Most participants (86.7%) had experience with clinical placement. Academically, third-year students comprised the largest group (33.3%), followed by second-year students (29.8%), fourth-year students (21.1%), and first-year students (15.8%) [Table 1].

**Table 1: Demographic Characteristics of Participants**

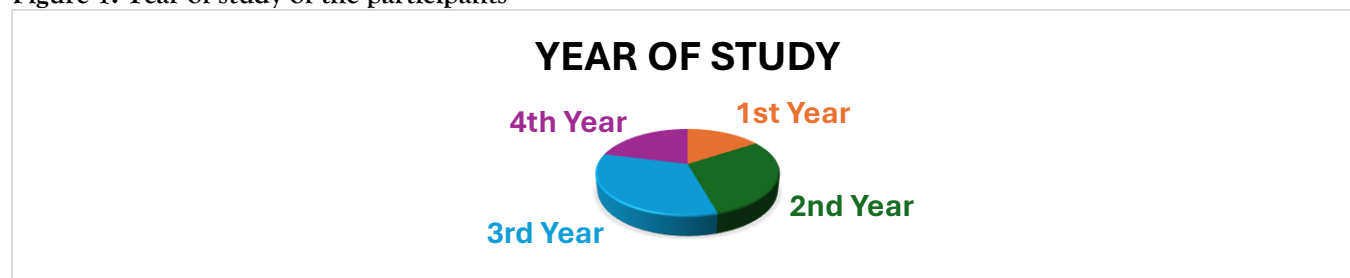
Variable	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	210	73.7%
Female	75	26.3%
<b>Academic Year</b>		
1st Year	45	15.8%
2nd Year	85	29.8%
3rd Year	95	33.3%
4th Year	60	21.1%
<b>Age (in years)</b>	—	—
Mean $\pm$ SD	—	$22.18 \pm 2.12$
<b>Clinical Placement</b>		
Yes	247	86.7%
No	38	13.3%

The majority of participants were third-year nursing students (33.3%), followed by second-year students (29.8%). Fourth-year students accounted for 21.1%

of the sample, while first-year students comprised the smallest group at 15.8%. This distribution indicates

higher representation from students with more clinical exposure [Figure 1].

**Figure 1: Year of study of the participants**



### Descriptive Statistics of Mindfulness and Compassion Fatigue Scores

The mean total mindfulness score, measured by the Five Facet Mindfulness Questionnaire (FFMQ), was 128.43 (SD = 15.76), with subscale means ranging from 24.35 (Acting with Awareness) to 26.91 (Nonjudging of Inner Experience). Participants

reported a mean compassion fatigue score of 21.85 (SD = 5.26) and a burnout score of 22.49 (SD = 4.95), indicating moderate levels. The mean compassion satisfaction score was relatively high at 36.78 (SD = 6.12), reflecting a generally positive outlook among nursing students despite [Table 2].

**Table 2: Descriptive Statistics of Mindfulness and Compassion Fatigue Scores**

Variable	Mean	Standard Deviation
Mindfulness Total Score (FFMQ)	128.43	15.76
- Observing	26.14	4.38
- Describing	25.72	3.95
- Acting with Awareness	24.35	4.21
- Nonjudging of Inner Experience	26.91	3.88
- Nonreactivity to Inner Experience	25.31	3.77
Compassion Fatigue (PQOL-5)	21.85	5.26
Burnout	22.49	4.95
Compassion Satisfaction	36.78	6.12

### Correlation Between Mindfulness and Compassion Fatigue Dimensions

The correlation analysis revealed a statistically significant negative relationship between mindfulness and compassion fatigue ( $r = -0.41$ ,  $p = 0.001$ ), indicating that higher mindfulness levels were associated with lower compassion fatigue. Similarly, a significant negative correlation was found between

mindfulness and burnout ( $r = -0.36$ ,  $p = 0.003$ ), suggesting that increased mindfulness corresponded with reduced burnout levels. In contrast, a significant positive correlation was observed between mindfulness and compassion satisfaction ( $r = +0.47$ ,  $p = 0.000$ ), reflecting that higher mindfulness was linked to greater professional satisfaction among nursing students [Table 3].

**Table 3: Pearson Correlation Between Mindfulness and Compassion Fatigue Dimensions**

Variables	r-value	p-value
Mindfulness and Compassion Fatigue	-0.41	0.001
Mindfulness and Burnout	-0.36	0.003
Mindfulness and Compassion Satisfaction	+0.47	0.000

### Discussion

This paper examined the correlation between mindfulness and compassion fatigue, among undergraduate nursing students in Swat, Pakistan. The analysis indicated a moderate negative

correlation between compassion fatigue and mindfulness, which showed that students reporting high mindfulness levels got lower levels of compassion fatigue (McVeigh et al., 2021; AlSubaie et al., 2024). This finding confirms the theoretical

knowledge that mindfulness can make people remain in the present, manage emotions, and react to stressful situations without developing overload. Such skills are especially important when it comes to nursing education and clinical practice, when students are often confronted with emotionally stressful scenarios (Yilmazer & Altinok, 2024).

The result accords with the earlier studies that reported a significant relationship between mindfulness and reduced rates of compassion fatigue and burnout in healthcare professionals. The same or similar results have been identified in the context of medical and nursing students, with higher mindfulness scores associated with fewer instances of emotional exhaustion and greater professional gratification (Squyres, 2023). This body of evidence is augmented by the present study as it replicates these associations in a sample of undergraduate nursing students, pointing towards appreciating the importance of mindfulness even prior to arriving in full professional practice. It implies that mindfulness can be used as a psychological cushion during the developmental training stage in clinical practice (Heise, 2021).

Along with the secondary outcome of minimizing compassion fatigue, the study provided significant results demonstrating a positive correlation between mindfulness and the feeling of compassion satisfaction. The finding is indicative of the fact that mindfulness not only precludes adverse emotional consequences but also upholds the optimal part of the constant caregiving. Greater Clinical Conscientiousness was also found in the students who indicated higher levels of mindfulness. That confirms once again the assertion that mindfulness simultaneously builds resilience and fulfilment, both of which are essential qualities in individuals who enter emotionally intense healthcare settings (Trulik et al., 2025).

Similar findings have been described, however, compared to the latter, other studies found weaker or inconsistent relationships between mindfulness and compassion fatigue. It is possible to explain variability in the results to the variation in mindfulness training exposure, clinical experience length, or different coping styles. As opposed to other studies that involved participants who had undergone structured mindfulness programs, the given sample involved students who had not undergone any method of training. Nevertheless, there was still a large effect of natural differences in mindfulness tendencies on

well-being and this established the inherent value of well-being (Malik et al., 2025).

These findings are enhanced further by the academic and cultural setting of the participants. The nursing students in this area tend to face some special stressors, such as inadequate resources of mental health options, too much academic stress, and the cultural stigmatization of emotional expression. These demands can increase the chances of developing compassion fatigue, and such protective factors as mindfulness become more important. Comparing with the environment when support systems are less advanced, the perks of mindfulness in such limited environments are all the more obvious.

### Conclusion and Recommendations

The results of the paper come up with a conclusion that the correlation level between mindfulness and compassion is strong and negative using a population of undergraduate nursing students in Swat, Pakistan. Those students who scored higher on mindfulness self-rating said that they had lower compassion fatigue and higher compassion satisfaction. These findings clinch the evidence of the protective nature of mindfulness to the low levels of emotional fatigue and increasing satisfactions of being a caregiver, even when no formal mindfulness training is provided. Mindfulness, as a skill that can be learned in a high-stress situation of academics and clinical agency, can be considered a decisive element of protecting students from developing mental issues and maintaining their drive to care compassionately.

Based on these findings, several recommendations are proposed. To start with, nursing educational organisations should consider the inclusion of disciplined mindfulness-based training, including the Mindfulness-Based Stress Reduction (MBSR), into the curriculum. These interventions might provide students with effective coping skills that will enable them to deal with clinical stressors and emotional loads. Second, the issue of mental health awareness within nursing colleges needs to be brought up, and psychological support services placed at the disposal of students in case they start to show symptoms of burnout or exhaustion. Third, there should be training qualifications of clinical instructors and faculty members to be able to identify the initial symptoms of compassion fatigue, as well as create the positive environments that will promote reflective practice and emotional resilience. Finally, it is also recommended that another study be carried out on a more varied and wider sample sized population, with



the employment of longer studies or longitudinal designs to determine the effects of mindfulness training on the psychological effects in nursing students in a long-term perspective. Such attempts will not only benefit the well-being of students but also will lead to a more empathetic, mindful, and competent future nurses.

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