***Original Research Article***

**Assessing the Compassion satisfaction, Compassion fatigue, and Burnout among registered nurses at public Hospitals in Sindh, Pakistan**

**Abstract:**

**Background:** Compassion satisfaction and compassion fatigue are tools for professional quality of life, which perform an essential role in empathic care. Compassion satisfaction is a condition of physical, emotional, and spiritual exhaustion during caring for patients. Nurses work with doctors and other healthcare workers to make patients well and to keep them fit and healthy. Compassion satisfaction is a condition of physical, emotional, and spiritual exhaustion during caring for patients.

**Objective:** The present study assesses the levels of compassion satisfaction, compassion fatigue, and Burnout among registered nurses at public hospitals in Sindh, Pakistan.

**Methodology:** This was a cross-sectional study, which was started on 25-01-2025 and completed on 25-02-2025. A convenient sampling method was used for data collection. The sample size was calculated by using Cochran's formula after putting the total population of the five hospitals, which was 124, where the confidence interval was 95%, and the margin of error was 5%; after putting all these values, the sample size was n=94. The data was collected with the principal's permission, and then data collection permission was obtained from the Medical Superintendent of the respective public hospitals. Data were analyzed using the latest version of SPSS V.29. Analysis of variance ANOVA was used to identify the significant difference in compassion satisfaction, fatigue, and Burnout among four clinical departments, and *p≤ 0.05* was considered significant.

**Results:** The study indicates that the sample comprises 54.2% female and 45.7% male. This remarkable variance shows the gender distribution of nurses. Result showed that the majority of participants had an average level of compassion satisfaction and an average level to a high level of compassion fatigue noticed among selected departments.

**Conclusion:** Overall, study participants showed average levels of compassion, Satisfaction, fatigue, and burnout among the participants. The significant mean differences between CS and CF were seen among all the selected participants.

***Key words****:**Compassion satisfaction, Compassion fatigue, and Burnout, Nurses*

**Background:** A nurse is a person who is trained to give care to people who are sick or injured. Nurses work with doctors and other healthcare workers to make patients well and to keep them fit and healthy [1]. Compassion satisfaction is a condition of physical, emotional, and spiritual exhaustion during caring for patients [2]. The term compassion fatigue is described as the state of physical emotional and spiritual tiredness owing to caring for patient [2]. Compassion satisfaction and compassion fatigue are tools for professional quality of life, which perform an essential role in empathic care [3]. It is that feeling of genuine accomplishment, that quiet pride in a job well done, the warm glow of knowing you have eased someone’s suffering [4]. Burnout is another notion that provide complete structure of CF is [2]. It differs from CF in that the prior is associated with generalized work-related stress, whereas the other is more particularly related to compassion practices[5]. Compassion satisfaction, another construct from the secondary traumatic stress literature, describes the positive benefits that individuals—caregivers, teachers, social workers, and clergy—derive from working with traumatized or suffering persons [5]. Compassion satisfaction (CS) is professional fulfillment experienced through helping others.[7] The concept of BO, also known as "Burnout syndrome," was first described by Freuden Berger (1974) as a feeling of failure and exhaustion resulting from excessive demands[8]. Compassion fatigue (CF) is a work-related psychosocial consequence that may occur as a result of exposure to a cumulative level of trauma and is emotionally induced by dealing with those who have been traumatized[9]. Compassion fatigue affects critical nurses, including leader and administrative support within the clinical setting and the coping strategies employed by the nurses.[10].

**Research objective:** To assess the levels of compassion satisfaction, compassion fatigue, and Burnout among registered nurses at public hospitals in Sindh.

**Problem statement:** It has been detected that high levels of patient satisfaction have been associated with high levels of nurse caring with compassion satisfaction, so the high levels of patient frustration have been linked to nurses [2] A higher score in the compassion satisfaction component signifies a profound capability of the individual to be an effective care provider whereas a higher score in the Burnout component and secondary traumatic stress interlinked with a higher risk of developing Burnout and compassion fatigue, respectively [3]. That is why this study aims to identify compassion satisfaction, compassion fatigue, and burnout among registered nurses at public hospitals in Sindh.

**Literature review:** A cross-sectional study was conducted in China where 186 emergency nurses were selected from eight hospitals covering six cities; kindness organizational satisfaction and self-compassion clarified a significant difference in compassion fatigue, Burnout, and compassion satisfaction. Moreover, Characteristic is also associated with life disturbance and reminders of psychological trauma, which is highly associated with compassion fatigue and Burnout [11]. Furthermore, as regards Brazilian palliative care professionals, most of them showed high levels of compassion satisfaction (60.00%) and low levels of Burnout (68.50%) (65.70%). As regards Brazilian palliative care professionals, most of them showed high levels of compassion satisfaction (60.00%), medium levels of secondary traumatic stress (56.60%), and low levels of burnout (68.50%) [12]. In addition, a cross-sectional study done in China in this study showed that the participants' compassion satisfaction and burnout were 35.95 ± 6.75 and 26.12 ± ​5, respectively. Although not statistically significant, nurses reported higher scores on compassion satisfaction (36.19 ​± ​6.88 vs. 35.32 ​± ​6.39) but lower scores on Burnout (25.81 ​± ​5.10 vs. 26.88 ​± ​4.9026.82 ​± ​5.77) than doctors, in general, 78.34%, 63.50%, 75.96% of the participants fell into a medium level of compassion satisfaction, Burnout [13]**.** Another study was conducted in Egypt, and the mean score of CS was average (2.95 ± 0.92). Nearly half of the nurses (48.5%) had a moderate level of CS. For CF, the mean score was (2.38 ± 0.35). The highest Percentage of nurses (68.8%) scored as having a moderate level (23–41) on the burnout score (2.59 ± 0.36), suggestive of actual or high risk of Burnout [ 14] Similarly, a study done in Colorado, Approximately 50% of Colorado county child protection staff suffered from "high" or "very high" levels of compassion fatigue. The risk of Burnout was considerably lower. More than 70% of staff expressed a "high" or "good" potential for compassion satisfaction. We believe compassion satisfaction may help mitigate the effects of Burnout [2]. Additionally, a study was done in the United States where the prevalence of CF, BO, and CS was 18%, 12%, and 25%, respectively. Distress about a “clinical situation,” physical exhaustion, and personal loss were identified as significant determinants of CF [2]. Moreover, another study was conducted in the USA, where the prevalence rates of compassion satisfaction, compassion fatigue, and Burnout were 47.55%, 52.55%, and 51.98%, respectively [17]. In addition, another cross-sectional survey research design was used. It was conducted in Faisalabad Division from September to December 2016. A significant positive relationship between CS and a significant negative relationship between CS and BO between rescuers were determined [18]. Moreover, A study done in Karachi, Pakistan, where the prevalence of low, average, and high CS, BO, and the average means score was 40.77 ± 6.26 for CS, 22.47 ± 5.46 for BO, displays the prevalence of low, average, and high CS, BO [18] Another study conducted in the Karachi where The proportions of the average level of compassion satisfaction (CS), compassion fatigue (CF) and Burnout were found 70%, 84.7%, and 94.2% respectively. Overall mean CS, CF, and Burnout scores were 36.59, 29.11, and 32.07 respectively [2]. **Material &**

**Methods:**

**Study Setting:** This cross-sectional study started on 25-01-2025 and was completed on 25-02-2025. This research was conducted at five different public hospitals.

**Study population:** The targeted population included all the hospital nurses who work in different units of the hospital, including the Adult ICU, Cardiac ICU, Pediatric ICU, and Neonatal ICU.

**Sample size:** The sample size was calculated using Cochran's formula after adding the total population of the five hospitals, which was 124. The confidence interval was 95%, and the margin of error was 5%. After adding all these values, the sample size was n=94.

**Sampling techniques:** A convenient sampling method was used for data collection.

**Research Tool:** A questionnaire consisting of four following sections.

**Section A:** Demographic of public hospital nurses including Name, Age, Gender, Marital status, working area, nursing experience, professional qualification, and working shift,

**Section B:** Questions regarding compassion satisfaction consisting of fifteen items to identify the level of compassion satisfaction.

**Section C:** Questions regarding compassion fatigue consist of ten items to identify the level of compassion fatigue.

**Section D:** Questions regarding burnout consist of five items to identify burnout.

**Inclusion Criteria:** All those nurses who are working in the different units of the hospital were part of the data collection,

**Exclusion Criteria:** Those who were on leave were part ofthe exclusion criteria, and the excluded nurses were n=10

**Data collection tool:** The data was collected by using the Professional Quality of Life ProQol scale version 5. This 5-point Likert scale consists of 30 questions, which are divided into] 03 subscales containing compassion satisfaction, fatigue, and Burnout. Each subscale contains 10 questions]ns. Subscale scores less than 22 were considered low, between 23 and 42 as the average level, and above 42 as a high level.

**Data Collection Procedure**: The data was collected with the principal's permission, and then data collection permission was obtained from the Medical Superintendent of the respective public hospitals. The survey was carried out by distributing the questionnaire among participants; the consent form was given to students before the data collection. Each nurse took 10-15 minutes to fill up the form. Moreover, the questionnaire was collected again for the data analysis method.

**Data Analysis:** Data were analyzed by using the latest version of SPSS V.29. For each participant in this study, scale scores were summed for compassion satisfaction, fatigue, and burnout. Frequency and Percentage performed for demographic data. Analysis of variance ANOVA was used to identify the significant difference in compassion satisfaction, fatigue, and Burnout among four different clinical departments, and p≤ was considered significant.

**Result :**

**Table 1 Classification based on gender.**

|  |  |  |
| --- | --- | --- |
| Categories | Frequency | Percentage |
| Female | 51 | 54.2% |
| Male | 43 | 45.7% |
| Total | 100% | 100.% |

**Table 1** indicates that the sample is composed of 54.2%.female and 45.7% male. This remarkable variance shows the gender distribution of nurses.

**Table 2 Classification based on Age.**

|  |  |  |
| --- | --- | --- |
| Categories | Frequency | Percentage |
| 20-29 years | 15 | 15.6% |
| 30-39 years | 52 | 55.3% |
| 40-49 years | 22 | 23.4% |
| >50 | 5 | 5.3% |
| Total | 100% | 100% |

**Table 2** presents the age distribution of participants. The majority 55.3% is between the Age 30-39 years while 23.4% were in between 40.49% and the 15.6% were between the age 20-29years, and only 5.3% in between >50 years.

**Table 3** **Classification based on marital status.**

|  |  |  |
| --- | --- | --- |
| Categories | Frequency | Percentage |
| Single | 11 | 11.7% |
| Married | 82 | 87.2% |
| Widow | 1 | 1.0% |
| Total | 100% | 100% |

Table 3 illustrates the participants' marital status while the great majority, 87.2%, were married. 11.7% were single, and just 1.0% were included in the widow population.

**Table 4: Classification based on the working area**

|  |  |  |
| --- | --- | --- |
| Units | Frequency | Percentage |
| Adult ICU | 10 | 10.6% |
| Cardiac ICU | 26 | 27.6% |
| Pediatric ICU | 40 | 42.5% |
| Neonatal ICU | 18 | 19.1% |
| Total | 100% | 100% |

Table 4 presents the participant's working area; the majority of nurses worked in the pediatric ICU 42.5%.where in the cardiac ICU 27.6%.moreover in the neonatal ICU, there were 19.1% of the participants and just 10.6% in the adult ICU.

**Table 5 Classification based on professional qualification**.

|  |  |  |
| --- | --- | --- |
| Educational level | Frequency | Percentage |
| Diploma | 35 | 37.2% |
| BSN | 9 | 9.5% |
| Post RN | 43 | 45.7% |
| MSN | 7 | 7.4% |
| Total | 100% | 100% |

**Table** 5 represents the respondent's professional qualifications. The majority of the respondents, 45.7% and 9.5%, had a degree in nursing post-RN in nursing was 45.7% while 37.2% had a diploma in nursing. moreover, 9.5% revealed a bachelor's degree in nursing, and only 7.4% notified in MSN

**Table 6 Classification based on working experience.**

|  |  |  |
| --- | --- | --- |
| Categories | Frequency | Percentage |
| 6 months | 1 | 1.0% |
| 1-3years | 7 | 7.4% |
| 4-6years | 18 | 19.1% |
| 7-10years | 28 | 29.7% |
| 11-15years | 25 | 26.5% |
| 16-20years | 8 | 8.5% |
| >20 | 7 | 7.4% |
| Total | 100% | 100% |

Table 6 represents the participant's professional experience. It was observed that 29.7% had 7-10years nursing experience /professional experience while 26.5% had 11-15years professional experience meanwhile, 19.1%had 4-6years professional experience, 8.5%had 16-20years,7.4%had 1.3years professional experience whilst >20years had 7.4%professional experience. whereas only 1.0%had 6months professional experience.

**Table 7 Classification based on working shifts.**

|  |  |  |
| --- | --- | --- |
| Categories | Frequency | %age |
| Working in all | 8 | 8.5% |
| Morning only | 59 | 62.7% |
| Evening only | 19 | 20.2% |
| Night only | 8 | 8.5% |
| Total | 100% | 100% |

**Table: 7** shows the classification based on working shifts of respondents. Majority of the respondents 62.7% working in morning shifts 20.2% were working in evening only. While 8.5%were working in night shifts and .Just 8.5%were working in all three shifts.

**Table 8: Comparison of compassion satisfaction, fatigue, and burnout scores**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables** | **Total n (%)** | **Cardiac ICU** | **Pediatric ICU** | **Medical ICU** | **NICU** |
| **Compassion satisfaction (CS)** | | | | | |
| **Low** | 11 | 2(18.1) | 6(54.5) | 2(18.1) | 1(9.0) |
| **Average** | 53 | 29(54.7) | 13(24.5) | 5(9.4) | 6(11.3) |
| **High** | 30 | 9(30) | 13(43.3) | 5(16.6) | 3(10) |
| **Compassion Fatigue(CF)** | | | | | |
| **Low** | 24(25.5) | 02(8.3) | 14(58.3) | 08(33.3) | 0(0) |
| **Average** | 59(62.7) | 05(8.4) | 37(62.7) | 10(16.9) | 7(11.8) |
| **High** | 11(11.7) | 03(27.2) | 07(63.6) | 1(9.0) | 0(0) |
| **Burnout (BO)** | | | | | |
| **Low** | 15(15.9) | 02(13.3) | 09(60) | 03(20) | 01(20) |
| **Average** | 65(69.1) | 15(23.0) | 43(66.1) | 03(4.6) | 04(6.1) |
| **High** | 14(14.8) | 03(21.4) | 08(57.1) | 0(0) | 03(21.4) |

**Table** **8** compares the score of 3 subscales of the proQol instrument among nurses working in four different clinical areas. The proportion of the average level of compassion satisfaction (CS) compassion fatigue and Burnout was 56.3%, 62.7%, and 69.1%, respectively. There were a few nurses (n=11) and (n=15) who had a low level of CS and Burnout, respectively, where the high level of CS (n=30) and Burnout (n=14) observed among participants with an average level of CS, CF, and Burnout was prominent in all departments, In pediatric ICU there was a high level of CS as compared to other ICUs. Moreover, the low level of CS was highest in the pediatric ICU, where there was a low level of CF, and Burnout was also prominent in the pediatric ICU.

**Table 09: Mean ± SD of subscales**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Cardiac ICU (n=40) | Pediatric ICU  (n=32) | Medical ICU  (n=12) | Neonatal ICU  (n=10) | *p-value* |
| Compassion Satisfaction | 25.43 ± 6.25 | 27.3 ± 6.23 | 25.43 ± 5.8 | 28.06 ± 5.19 | 0.012\* |
| Compassion fatigue | 20.08 ± 4.54 | 20.2 ± 5.02 | 16.6 ± 4.1 | 20,0 ± 5.90 | 0.002\* |
| Burnout | 21.80 ± 3.89 | 20.8 ± 4.02 | 20.6 ± 2.25 | 22.96 ± 3.49 | 0.313 |

**Significant\***

Table 9 shows the mean ± SD of compassion satisfaction, compassion fatigue (CF), and Burnout of the study participants working in four selected departments. The highest mean score of (CS) found in the NICU department was 28.06 ± 5.19. Furthermore, the lowest values of CF and Burnout were observed for study participants working in medical ICU at 16.6 ± 4.1 and 20.6 ± 2.25, respectively. Moreover, ANOVA confirmed that mean scores of CS and CF were significantly different among four clinical departments *(p= 0.012 and 0.002)*

**Discussion:**In this study, most of the participants (29.7%) had working experience from 7-10 years. Similar findings were reported in a study performed in the USA7, which revealed that nurses have less than 10 years of clinical experience, but this study shows that there is an average compassion satisfaction among participants, which is in contrast to study results finding19. Furthermore, According to the current study, most participants (66.1%) working in the pediatric ICU had an average level of Burnout significantly; another significant study result also showed that 92% of study participants were at moderate risk of burnout20. Moreover, most of the participants, 45.7%, had Post RN degrees, in contrast to the study done in the USA who had a nursing diploma with certification courses19.

Moreover, the present study results show that the majority of participants had an average level of compassion satisfaction and an average level to a high level of compassion fatigue noticed among selected departments. A high level of CS is found in the pediatric ICU compared to all selected departments. The result of this study is in contrast to a study done in Karachi2, where a higher level of CS and an average to low level of CF in nurses working in critical areas.

In addition, the finding of this study is similar to the study done in China18, Where (78.34%) of nurses had an average to a high level of CS; in this regard, CF had an average score among Participants. In contrast, the study findings were compared to a study accomplished in a San Antonio Military Medical Center, USA19, among emergency department nurses, which established lower levels of CS among nurses along with CF. The current study determined that the majority of participants had average BO, and this finding contrasts study findings19 where the BO was low score among the participants.

**Conclusion:**

Overall, study participants showed average levels of compassion Satisfaction, fatigue and burn out among the participants. Significant mean difference of CS and CF were seen among all the selected participants.

**Recommendations:**

To mitigate the risk of compassion fatigue and Burnout, healthcare organizations should prioritize the emotional well-being of nurses. Strategies may include:

**1. Providing emotional support**: Regular counseling sessions, peer support groups, and mental health resources can help nurses manage stress and emotional exhaustion.

**2. Promoting self-care**: Encouraging nurses to engage in self-care activities, such as mindfulness, exercise, and relaxation techniques, can help reduce stress and increase resilience.

**3. Fostering a supportive work environment**: Healthcare organizations should promote a culture of empathy, understanding, and support among nurses and other healthcare professionals.

**4. Developing effective coping strategies**: Educating nurses on effective coping strategies, such as problem-focused coping and emotional regulation, can help them manage the emotional demands of their job.

By implementing these strategies, healthcare organizations can promote the emotional well-being of nurses, reduce the risk of compassion fatigue and Burnout, and ultimately improve the quality of patient care.

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