



## Relation Between Self-compassion and Sleep Quality Among Psychiatric Nurses

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### *Abstract*

**Background:** Psychiatric nurses are especially vulnerable to sleep disturbances because they are exposed to various situations that can disrupt sleep quality, such as work schedules and working with psychiatric patients, which disturbed their sleep quality. Additionally, self-compassion is an important concept in helping nurses to cope with difficulties and foster empathy towards patients leading to improved interactions and care quality. **Aim of the study:** Assess the relation between self-compassion and sleep quality among psychiatric nurses. **Subjects and Methods: Research design:** Cross-sectional descriptive design. **Setting:** The study was conducted at El-Azazi Hospital for Mental Health in Abo Hamad City, Sharkia Governorate, Egypt. **Subjects: Sample** A purposive sample of 100 psychiatric nurses was used. **Tools of data collection:** Two tools were used for data collection, Tool I: The Neff's Self- Compassion Scale (SCS). Tool II: The Pittsburgh Sleep Quality Index (PSQI). **Results:** The study revealed that the total level of self-compassion was moderate among 69% of the studied psychiatric nurses and high among 30% of them. The adequacy of sleep quality was poor among 90% of studied nurses. **Conclusion:** There was a highly statistically significant positive correlation between self-compassion and sleep quality. Also, the self-compassion was a highly statistically significant positive predictor of the total sleep quality among psychiatric nurses. **Recommendations:** Establishing educational programs on good sleep hygiene practices for psychiatric nurses, like workshops on relaxation techniques such as meditation and deep breathing and time management skills. Provide training courses on cognitive coping strategies, like mindfulness and cognitive-behavioral techniques, to improve self-compassion.

**Keywords:** *Psychiatric Nurses, Self-compassion, sleep quality.*



## Introduction

Numerous stressors affect psychiatric nurses, such as an inadequate number of psychiatric nurses, a lack of autonomy, a lack of support from managers, a lack of assistance or immediate support from colleagues, and unexpected psychiatric patient behavior like violence and aggression (**Rahmani et al., 2021**). According to **Eita & Alhalawany (2021)**, psychiatric nurses encounter several difficulties in their field of work, including job dissatisfaction, a weak multidisciplinary team, a heavy workload, high rates of assault and injuries, a large volume of administrative tasks that they perform, a lack of support or positive feedback from seniors, and a poor social position.

Being self-compassionate is crucial to handling the difficulties of working with people who are frequently suffering. However, caregivers frequently deny themselves the care that enhances their resilience and well-being and, consequently, more effective health care because they believe that their suffering and demands are not as legitimate. They are frequently trained to prioritize the patient and devalue their own needs (**Kabakçı & Altun, 2022**).

Self-compassion refers to a supportive and caring attitude towards oneself, based on self-acceptance and developed through the recognition of personal strengths in facing challenges. Self-compassion consists of three elements: mindfulness, a sense of common humanity, and self-kindness (**Paucsik et al., 2022**).

Mindfulness is described as the awareness that emerges from consciously focusing on the present moment and observing the flow of experience without judgment (**Channawar, 2023**). Common humanity is a fundamental principle of self-compassion that acknowledges that all individuals have intrinsic flaws, failures, and difficulties. It emphasizes the shared human experience of sorrow and allows individuals to connect with others via an awareness of shared vulnerability and interconnectedness (**Austin et al., 2023**). Furthermore, self-kindness is the practice of treating oneself with compassion and understanding as opposed to self-criticism and judgment. Instead of being harsh and judgmental of themselves, those who practice self-kindness embrace and treat their defects with gentleness (**Neff, 2021**).

Self-compassion is linked to a variety of favorable outcomes, including perseverance in the face of challenges, diminished self-criticism, lower levels of anxiousness and depression, and better physical health and health behaviors. Moreover, nurses who practice self-compassion report feeling happier and more content, as well as experiencing less burnout and compassion fatigue. Furthermore, nurses' self-compassion is linked to better practices like obtaining enough sleep (**Gerace, 2021**).

One of the most important aspects of human biology is sleep. It is essential for reviving energy and alertness for daily tasks as well as preserving metabolism, a state of equilibrium and the normal functioning of the brain and other body organs. Sleep quality has a significant impact on health in addition to quantity (**Kohyama, 2021**). Research indicates that superior sleep quality can boost various health outcomes, including immune function, mood and mental health, physical performance, reduced risk of chronic diseases, and increased longevity (**Han et al., 2024**).

Sleep quality refers to an individual's fulfillment with all aspects of their sleep period. It has four dimensions: sleep efficiency, sleep latency, sleep duration, and wakefulness following sleep begin (**Nelson, 2022**). Sleep efficiency is the overall amount of time spent sleeping in a given day, which varies with age. On the other hand, Sleep latency refers to the time it takes to move from awareness to sleep state. The next sleeping step is the duration of



the individual's sleep which, as mentioned, varies from one person to another and with age. The last stage of sleeping is wake up after sleep (**Almutairi, 2023**).

Sleep problems among nurses, like insomnia, insufficient sleep, deprivation, and poor quality, are prevalent, with rates ranging from 57 to 83% (**Qiu et al., 2020**), and up to 50% worldwide experience short sleep durations (**Furihata et al., 2020**). Low-quality sleep will not only affect their health and wellbeing but also has significant implications for patient care and safety as it can impair cognitive functions such as memory, attention, and decision-making (**Stimpfel et al., 2020**).

Poor sleep quality was linked to low levels of self-compassion. Self-compassion can influence how a person reacts to sleep disruptions, daily stressors, and ruminative thoughts. Blaming oneself partially mediated the negative relationship between self-compassion and poor sleep quality (**Semenchuk et al., 2021**). Positive aspects of self-compassion (self-kindness, common humanity, and mindfulness) are linked to compassion satisfaction, job satisfaction, and improved sleep quality in nurses (**Vaillancourt & Wasylkiw, 2020**).

#### **Significance of the Study:**

The prevalence of sleep problems is rising annually, and sleep disorders have emerged as a prevalent clinical condition. Nursing staff members have poor sleep conditions, and sleep issues are detected at a significantly higher rate than in the general population. These issues primarily show up as insomnia, ineffective sleep schedules, and poor sleep quality (**Salari et al., 2020**). Previous Egyptian study revealed that 83.5% of the studied nurses had poor sleep quality and significant sleep problems (total PSQI score of 5 or above), with a mean Pittsburgh Sleep Quality Index (PSQI) score of 8.52 (**Omar et al., 2022**). Self-compassion improves sleep quality among nurses by promoting emotional resilience and lowering stress levels, leading to improved mental well-being. This fosters a healthier work environment, eventually benefiting both nurses and their patients (**Rizal et al., 2021**). Therefore, the current study was conducted to assess the relation between self-compassion and sleep quality among psychiatric nurses.

#### **Aim of the study:**

To assess the relation between self-compassion and sleep quality among psychiatric nurses.

#### **Research questions:**

- What is the level of self-compassion among psychiatric nurses?
- What is the level of sleep quality among psychiatric nurses?
- Is there a relation between self-compassion and sleep quality among psychiatric nurses?

#### **Subjects and methods:**

##### **Research design:**

To conduct this study, a cross-sectional descriptive research design was utilized.

##### **Study setting:**

The current study was carried out at El-Azazi Hospital for Mental Health in Abo Hamad City; sharkia Governorate, Egypt.

##### **Study subjects:**

The study subjects consisted of 100 psychiatric nurses from the previously mentioned settings who fulfill the following inclusion criteria:



They provide direct care for mentally ill patients, have at least 1 year of experience, are from both genders, and agree to participate in the study.

The sample size was calculated by the following equation:

$$\text{Sample size} = [(Z\alpha + Z\beta)/C]^2 + 3$$

The standard normal deviate for  $\alpha = Z\alpha$

The standard normal deviate for  $\beta = Z\beta$

$$C = 0.5 * \ln [(1+r) / (1-r)] \text{ (Hulley et al., 2013)}$$

#### Tool for data collection:

#### Tool I- The Neff's Self-Compassion Scale (SCS):

This scale was developed by (Neff 2003) to evaluate self-compassion among nurses. It consists of 26 items divided into positive and negative dimensions. Each dimension includes three subscales as follow:

Positive dimensions subscales:

- *Self-kindness subscale*: It's used to assess the nurses' tendency to be kind towards oneself in failure's times and it consists of 5 items.
- *Common Humanity subscale*: it's used to assess the nurses' tendency to view their personal experiences as part of common human experiences and it consists of 4 items.
- *Mindfulness subscale*: it's used to assess the nurses' tendency to be aware of painful thoughts and emotions and it consists of 4 items.

Negative dimensions subscales:

- *Self-judgment subscale*: it's used to assess the nurses' tendency to be critical towards oneself in moments of failure and it consists of 5 items.
- *Isolation subscale*: it's used to assess the nurses' tendency to view their personal experiences as separate from others' experiences and it consists of 4 items.
- *Over identification subscale*: it's used to assess the nurses' tendency to be over identified with painful thoughts and emotions and it consists of 4 items.

#### Scoring system:

This scale is rated on a 5-point Likert scale. It categorized as 1=almost never, 2=rarely, 3=sometimes, 4=often, 5=almost always. Items of negative subscales (self-judgment, isolation, and over-identification) are reverse scored when entering data. An increase in the subscale scores means an increase in that dimension. Higher scores represent greater self-compassion.

Minimum and maximum scores on the scale range between 1-5.

- <2.5 indicate low self-compassion.
- 2.5-3.5 indicates moderate self-compassion.
- 3.5-5.0 indicates high self-compassion.

#### Tool II: The Pittsburgh Sleep Quality Index (PSQI):

It is a 19-item self-report questionnaire adopted by (Buysse et al., 1989). It designed to measure sleep quality and disturbances over a one month period. The PSQI items ask respondents for their usual bedtime, length of time to fall asleep, usual wake-up time, and duration of actual sleep. The 19 items are combined to form seven component scores or subscales: Subjective sleep quality (item No. 6), sleep latency (items 2 and 5a), sleep



duration (item No. 4), habitual sleep efficiency (items 1, 3, and 4), sleep disturbances (items 5b to 5j), use of sleep medications (item No. 7), and daytime dysfunction (items 8 and 9).

**Scoring system:**

Component scores based on a 4-point Likert scale from 0 to 3 which 0 indicating no problem, 3 indicating severe difficulties. The seven component scores are summed to yield one global score that ranges from 0 to 21 with higher scores denoting poorer sleep quality. The global score has a cut-off of > 5 that has been used to distinguish poor sleepers from good sleepers. Scores  $\leq 5$  refer to good sleepers and scores  $\geq 5$  refer to poor sleepers.

**Content validity and reliability:**

Tools were translated into Arabic, utilizing translation and back translation techniques to ensure their original validity. The tools were checked before the pilot study through distributing them to five experts in the field of study with the covering letters and explanation sheet that explains the study, purpose and other related information. Five psychiatric and mental health nursing staff members conducted validity of all items of these tools. They revised the tools for clarity, relevance, applicability, comprehensive, and understanding. Their recommendations were taken into consideration.

Reliability of the tools was assessed by Cronbach's  $\alpha$  test in SPSS V.25 (Version 25; IBM Corp., Armonk, NY, USA). They show a good level of reliability as follows: Self-compassion was 0.829 and rumination was 0.877.

**Field work:**

According to the pilot study results, the time needed to fill out the tools was about 30–40 minutes. After obtaining the required permission to conduct this study, the researcher met with the hospital's manager and head nurse to explain the study's aim, as well as the information assortment forms, obtain their consent, and gain their cooperation to start gathering data. After that, the researcher introduced herself to psychiatric nurses and explained the purpose and the nature of the study. Clear instructions on how to complete the scales were given. Voluntary participation and confidentiality were ensured. The questionnaire was answered by nurses.

**Pilot study:**

To ensure the clarity and comprehensiveness of the tool, a pilot study was carried out on 10 nurses representing about 10 % of the total study sample. Based on the result of the pilot study, there wasn't any modification needed in the tool.

**Administration and ethical consideration:**

First, the study proposal was accepted by the Zagazig University Faculty of Nursing's Post Graduate and Research Ethics Committee (REC) with the code of M.DZU.NUR/209/12/5/2024.

Before starting any step in the study, an official permission to conduct the proposed study was obtained by submitting an official letter issued from the Dean of the Faculty of Nursing at Zagazig University to the director of El-Azazi Hospital for Mental Health in Abo Hamad City. Accordingly, approvals to conduct the study were obtained from the hospital director and the nursing director.

Participants were informed about the aim of the study and their participation was voluntary and they had the right to withdraw from the study at any time while not giving any reason. Additionally, the confidentiality and namelessness of the participants were assured through coding of all data.

**Statistical analysis:**

All data were collected, tabulated and statistically analyzed using IBM SPSS Statistics for Windows (Version 25; IBM Corp., Armonk, NY, USA, 2017). Quantitative data were



expressed as the mean  $\pm$  SD and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). Percent of categorical variables were compared using Chi-square test or Fisher exact test when appropriate. Pearson correlation coefficient was calculated to assess relationship between study variables, (+) sign indicate direct correlation & (-) sign indicate inverse correlation, also values near to 1 indicate strong correlation & values near 0 indicate weak correlation. Multiple linear regression (step-wise) was also used to predict factors which affect total Self compassion, rumination and sleep quality scores. Cronbach alpha coefficient was calculated to assess the reliability of the scales through their internal consistency. P-value  $<$  0.05 was considered statistically significant, p-value  $<$  0.01 was considered highly statistically significant, and p-value  $\geq$  0.05 was considered statistically non-significant.

**Results:**

**Figure 1** illustrates that the total level of self-compassion was moderate among 69% of the nurses studied and high among 30% of them.

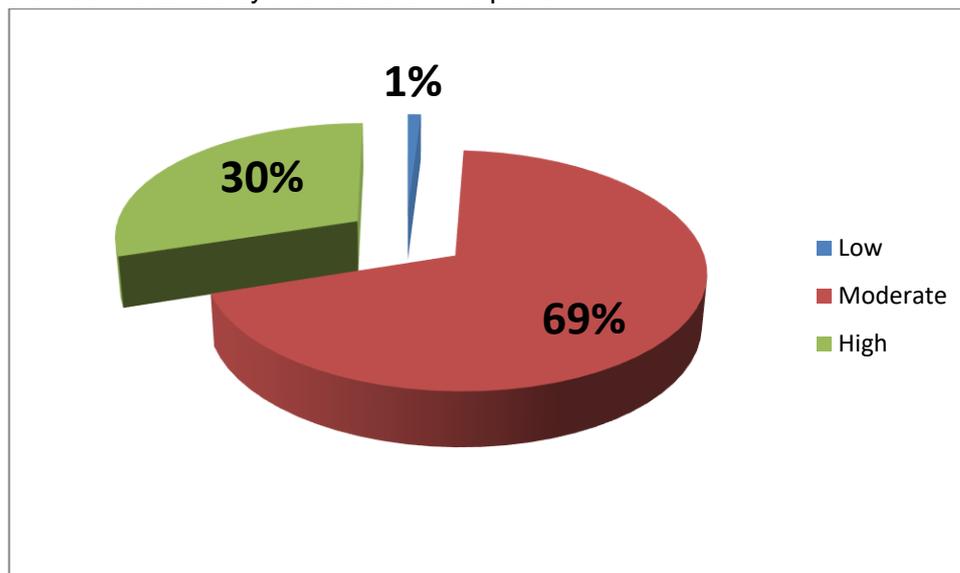
**Figure 2** displays that the adequacy of sleep quality was poor among 90% of studied nurses.

**Table 1** reveals that there was a highly statistically significant relations between nurses' self-compassion and their gender, educational level, and years of experience ( $p=0.001$ ). It is evident that the self-compassion was higher among male nurses, those who had a bachelor's level of education, and those who had more than 10 years of experience.

**Table 2** points that there was a highly statistically significant relation between the sleep quality of the studied nurses and their gender, marital status, and income. It indicates that poor sleep quality is higher among female nurses who are married and those who had insufficient income.

**Table 3** portrays that the self-compassion was a highly statistically significant positive predictor of the total sleep quality score. The model explains 19% of the variation in sleep quality as indicated by the value of R-square.

**Table 4** indicates that the educational level was highly statistically significant independent positive predictors of self-compassion. The model explains 27% of the variation in the self-compassion as indicated by the value of R-square.



**Figure 1: Total self-compassion among nurses in the study sample (n=100).**

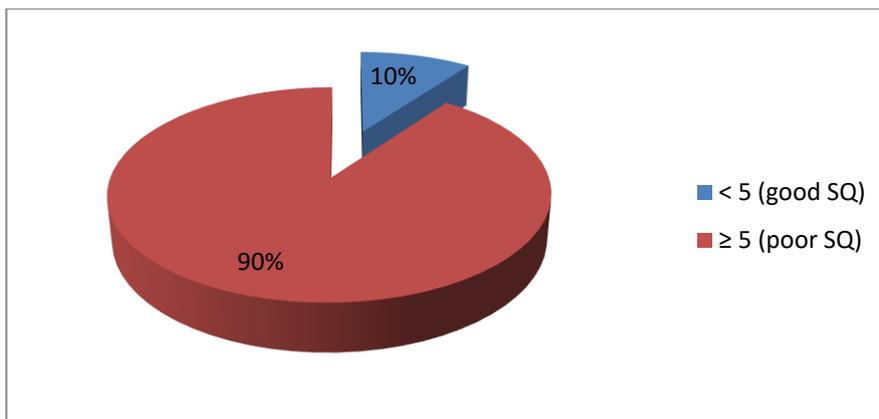


Figure 2: Adequacy of sleep quality among nurses in the study sample (n=100).

Table 1: Relation between nurses' self-compassion, demographic and work related characteristics (n=100)

Characteristics	Self-compassion						$\chi^2$	p-value
	Low=1		Moderate=69		High=30			
	No.	%	No.	%	No.	%		
<b>Age</b>								
<30	1	100.0	33	47.8	19	63.3	2.914	0.233
≥30	0	0.0	36	52.2	11	36.7		
<b>Gender</b>								
Male	0	0.0	1	1.4	19	63.3	50.299	0.001**
Female	1	100.0	68	98.6	11	36.7		
<b>Marital status</b>								
Single	0	0.0	7	10.1	6	20.0	4.842	0.564
Married	1	100.0	61	88.4	23	76.7		
Widow	0	0.0	1	1.4	0	0.0		
Divorced	0	0.0	0	0.0	1	3.3		
<b>Residence</b>								
Rural	1	100.0	47	68.1	22	73.3	0.704	0.703
Urban	0	0.0	22	31.9	8	26.7		
<b>Educational level</b>								
Diploma	1	100.0	12	17.4	0	0.0	73.178	0.001**
Technical institute	0	0.0	47	68.1	0	0.0		
Bachelors	0	0.0	8	11.6	29	96.7		
Post- graduate	0	0.0	2	2.9	1	3.3		
<b>Work department</b>								
Female department	1	100.0	23	33.3	9	30.0	2.156	0.340
Male department	0	0.0	46	66.7	21	70.0		
<b>Number of Family members</b>								
<5	1	100.0	37	53.6	20	66.7	2.556	0.635
5-10	0	0.0	26	37.7	9	30.0		
>10	0	0.0	6	8.7	1	3.3		
<b>Income</b>								
Sufficient	0	0.0	32	46.4	13	43.3	0.905	0.636
Insufficient	1	100.0	37	53.6	17	56.7		
<b>Years of experience</b>								
<5	1	100.0	27	39.1	3	10.0	49.412	0.001**
5-10	0	0.0	30	43.5	0	0.0		
>10	0	0.0	12	17.4	27	90.0		
<b>Number of working hours per week</b>								
<60hrs	1	100.0	55	79.7	23	76.7	0.385	0.825
>60hrs	0	0.0	14	20.3	7	23.3		

$\chi^2$  : Chi square test non-significant(  $p>0.05$ ), \*\*: statistically highly significant (  $p<0.01$ ).



**Table 2: Relation between the studied nurses' sleep quality, demographic and work related characteristics (n=100)**

Characteristics	Sleep quality score				$\chi^2$	p-value
	Poor=90		Good=10			
	No.	%	No.	%		
<b>Age</b>						
<30	47	52.2	6	60.0	FET	0.746
≥30	43	47.8	4	40.0		
<b>Gender</b>						
Male	12	13.3	8	80.0	FET	<b>0.001**</b>
Female	78	86.7	2	20.0		
<b>Marital status</b>						
Single	4	4.4	9	90.0	58.250	<b>0.001**</b>
Married	84	93.3	1	10.0		
Widow	1	1.1	0	0.0		
Divorced	1	1.1	0	0.0		
<b>Residence</b>						
Rural	65	72.2	5	50.0	FET	0.161
Urban	25	27.8	5	50.0		
<b>Educational level</b>						
Diploma	13	14.5	0	0.0	5.731	0.125
Technical institute	44	48.9	3	30.0		
Bachelors	30	33.3	7	70.0		
Post- graduate	3	3.3	0	0.0		
<b>Work department</b>						
Female department	30	33.3	3	30.0	FET	0.99
Male department	60	66.7	7	70.0		
<b>Number of Family members</b>						
<5	50	55.6	8	80.0	3.054	0.217
5-10	34	37.7	1	10.0		
>10	6	6.7	1	10.0		
<b>Income</b>						
Sufficient	44	48.9	1	10.0	FET	<b>0.021*</b>
Insufficient	46	51.1	9	90.0		
<b>Years of experience</b>						
<5	26	28.9	5	50.0	2.778	0.249
5-10	29	32.2	1	10.0		
>10	35	38.9	4	40.0		
<b>Number of working hours per week</b>						
<60hrs	72	80.0	7	70.0	FET	0.434
>60hrs	18	20.0	3	30.0		

$\chi^2$  : Chi square test    FET: Fisher exact test    non-significant(  $p>0.05$ ), \*: statistically significant ( $p<0.05$ ), \*\*: statistically highly significant ( $p<0.01$ ).



**Table 3: Best fitting multiple linear regression for sleep quality score.**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.640	.116		14.192	.000	1.411	1.870
Self-compassion	.181	.061	<b>.288</b>	2.972	<b>0.004**</b>	.060	.303

\*\* : statistically highly significant (p<0.01)

R-square=0.191, ANOVA: F= 23.142, P<0.001, variables entered and excluded: age, gender, marital status, residence, educational level, work department, number of family members, income, years of experience, and number of working hours per week.

**Table 4: Step wise multiple linear regression for the self –compassion score (n=100).**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.551	.295		12.028	.000	2.965	4.137
Educational level	.177	.058	<b>.270</b>	3.032	<b>0.003**</b>	.061	.293

\*: statistically significant (p<0.05) \*\*: statistically highly significant (p<0.01)

R-square=0.276, ANOVA: F= 12.193, P<0.001, variables entered and excluded: age, gender, marital status, residence, work department, number of family members, income, years of experience, and number of working hours per week.

**Discussion:**

**Regarding self-compassion,** the current study findings showed that the majority of studied nurses had a moderate level of self-compassion, this answer the first research question. This may be due to psychiatric hospitals may lead to isolation and identity struggles due to workplace stigma and undervaluation, dealing with complex mental health cases, aggression, self-harm, and suicidality which can result in high levels of stress and may lead to feelings of isolation and feeling misunderstood by colleagues in other specialties or lack of support in their work environment. Moreover, frequent contact with emotionally unstable patients increases nurses' vulnerability to isolation, especially if they don't receive adequate emotional support. Because work of psychiatric nurse requires a compassionate, non-judgmental approach, they may also develop greater self-kindness and understanding, recognizing the importance of emotional care for them as well. This finding was supported by a Japanese study by **Kurebayashi (2021), who** revealed that most of the psychiatric nurses in his study had a moderate level of self-compassion.



Similarly, studies conducted in Egypt by **Behilak et al. (2024)** and **Abdelraof & Abdelgllil (2025)** indicated that the majority of their studied psychiatric nurses had moderate level of self-compassion.

Additionally, this study finding is incongruent with the Iranian study of **Nosratabadi et al. (2023)**, who showed that self-compassion was higher in psychiatric nurses than among other nurses.

Regarding the relation between the studied nurses' self-compassion and their characteristics. The current study results revealed that a highly statistically significant relation was found between nurses' self-compassion and their gender, educational level, and years of experience. Self-compassion was high among male nurses, those who have a bachelor's degree of education, and those who have more than 10 years of experience. This was supported by best-fitting multiple linear regression models for self-compassion; educational level was a highly statistically significant independent positive predictor of self-compassion.

This may be because males may use coping mechanisms like problem-solving or emotional distancing, leading to higher perceived self-compassion. Male nurses may feel less pressure to fulfill traditional nurturing roles, reducing burnout, whereas female nurses, particularly in psychiatric settings, often feel more pressure to take on emotional labor, increasing stress and decreasing self-compassion. Additionally, higher education often leads to increased confidence in one's abilities and greater job satisfaction, leading to higher levels of self-compassion as they face difficult situations. Nurses with more years of experience become more adept at handling stress, difficult situations, and the emotional demands of their job and develop various coping mechanisms for dealing with the challenges they face in their work. All these factors increase the level of self-compassion. This result was in line with an Egyptian study conducted by **Behilak et al. (2024)**, which indicated that male psychiatric nurses tend to exhibit higher levels of self-compassion compared to their female counterparts, and nurses with higher educational qualifications tend to have higher self-compassion levels. In the same stream, a study conducted in Pakistan by **Abbasi et al. (2024)** revealed that nurses with more than 10 years of experience demonstrated better patient care practices and a higher level of self-compassion compared to those with less experience.

These results partially disagree with a study conducted in Indonesia by **Derang et al. (2023)**, which demonstrated that female nurses and those with higher education levels, particularly registered nurses, exhibit higher self-compassion. Additionally, younger nurses (0-5 years of experience) also demonstrate high self-compassion. On the contrary, **Joy et al. (2023)** showed in their study that there was no association between nurses' self-compassion and their age, gender, marital status, or years of experience in the organization.

**Regarding sleep quality**, the current study found that most of the studied nurses had poor sleep quality according to Pittsburgh Sleep Quality Index (PSQI)  $\geq 5$ , this answer the second research question. This could be due to that the current study is carried out on psychiatric nurses, who work in difficult working conditions and have long working hours with limited flexibility. Poor sleep hygiene (e.g. using phones in bed, irregular bedtime routines) due to exhaustion or lack of time and use of caffeine or sedatives, which may disrupt natural sleep cycles. Also, noise or inadequate rest areas during break times in hospital settings can reduce napping quality.

In agreement with these findings, the study of **Dongol et al. (2021)** and **El.ezazy et al. (2023)** in Egypt found that most of the studied nurses had poor sleep quality.



Concerning the relation between studied nurses' sleep quality and their characteristics. The findings of the present study clarified that there was a statistically significant relation between sleep quality of studied nurses and their gender and marital state, and income. Poor sleep quality was higher among female married nurses and those who had insufficient income. The rationale for this result might be that nurses with lower incomes may take on additional shifts or side jobs, leading to reduced sleep time and irregular sleep schedules, and become worried about money, which can contribute to stress.

Furthermore, women often try to balance work and caregiving responsibilities at home, trying to take care of the house and children after returning from work this increasing life pressure than that of male nurse, contributing to mental overload and reduced sleep time or quality. Moreover, women are always more sensitive to stressors than men, which can prolong cortisol release and interfere with sleep initiation and maintenance.

This finding is consistent with a study conducted in Egypt by **Mohamed et al. (2022)**, who highlighted that there was a statistically significant relation between nurses' poor sleep quality and their gender as the majority of female nurses had poor sleep quality, as well as a statistically significant relationship between sleep quality among nurses and their income level as the majority of studied nurses who have insufficient income have poor sleep quality. Similarly, the study of **Alghamdi et al. (2024)** in Jeddah showed that there was a statistically significant relationship between sleep quality among nurses and gender, where female nurses was strongly associated with poor sleep quality.

As well, the current study result was supported by a study conducted in Saudi Arabia by **Alrasheeday et al. (2024)**, who revealed that nurses' sleep quality was significantly associated with gender, marital status, and monthly income. Female married nurses and those who had insufficient income had a poorer sleep quality compared to other categories. This is incongruent with Chinese studies of **Deng et al. (2020)** and **Wang et al. (2021)**, who found that there was no significant relation between nurses' sleep quality and their sex, marital status, educational level, and income. Similarly, a study in China carried out by **Tu et al. (2020)** who demonstrated that a high prevalence of sleep disorders among nurses in both sex and the prevalence of sleep disorders were higher in single nurses compared to married nurses.

The result of the current study revealed that there was a highly statistically significant positive correlation between self-compassion and sleep quality; this answers the third research question. That is supported by the best-fitting multiple linear regression models for sleep quality; the nurses' self-compassion was a highly statistically significant positive predictor of the total sleep quality score. This outcome indicated that nurses who experienced a high level of self-compassion had good sleep quality.

This may be explained by the fact that self-compassion involves treating oneself with kindness during times of failure or distress, recognizing shared human experience, and maintaining a balanced perspective on negative emotions and reduce negative self-judgment. Nurses who are kind to themselves are more likely to practice healthy sleep habits, are less likely to dwell on negative experiences before bedtime, and prioritize self-care.

The current study result is in line with the result of a study conducted in Japan by **Kurebayashi (2020)**, who showed that nurses with higher levels of self-compassion may have better sleep quality and observed that negative aspects of self-compassion exhibit stronger correlations with depression than positive ones, suggesting that these negative aspects may be related to stress that impacts sleep. Furthermore, a study by **Liu et al. (2023)** in China suggested that individuals with higher levels of self-compassion may have lower levels of depression and better sleep quality.



Similarly, studies conducted in Australia and Germany by **Brown et al. (2020)** and **Butz and Stahlberg (2020)** found a positive correlation between self-compassion and subjective sleep quality, whereby high self-compassion is associated with better sleep quality.

In the contrary, a study of **Wang et al., (2024)** in China who revealed that self-compassion was significantly negatively associated with sleep quality ( $r = -0.514, p < 0.01$ ).

**Conclusion:**

In light of the study's findings and answer to the research question, it was concluded that psychiatric nurses had a moderate level of self-compassion and poor sleep quality. Furthermore, nurses' self-compassion was a highly statistically significant positive predictor of sleep quality. This means that the more self-compassionate psychiatric nurses were, the better sleep quality they experienced.

**Recommendations:**

Based on the study findings, it was recommended to:

- Developing workshops on Mindfulness-Based Programs like Mindfulness-Based Stress Reduction (MBSR) and Mindful Self-Compassion (MSC) for nurses to improve self-compassion.
- Further research to implement longitudinal studies to establish the causality between nurses' self-compassion and sleep quality is recommended.

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M.S. worked to design the study, assessed and interviewed the sample, collected and analyzed the data, interpreted the data, and revised the article; she is also the corresponding author. The research idea was proposed by Professor S. M., H.H., and Doctor H. SH.; they also played a significant role in gathering data and composing the article and contributed to the study design, collecting, and analyzing the data for the manuscript. All authors have read and approved the final manuscript.

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