

The effect of emotional intelligence levels of intensive care and clinical nurses on psychological resilience

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Abstract:

Nurses must have communication skills, empathy, and the ability to effectively deal with the challenges of patient care. Emotional intelligence and psychological resilience are skills that nurses can develop in adapting, collaborating, and providing quality patient care. This study aims to determine the effect of the emotional intelligence levels of intensive care and clinical nurses on their psychological resilience levels. In this descriptive cross-sectional study, 252 intensive care and ward nurses met the study sample. "Personal Information Form," "Emotional Intelligence Scale," and "Adult Resilience Measure" were used as data collection tools in the research. The nurses' "total emotional intelligence" average was 139.060 ± 24.129 (min=33 and max=180). The "psychological resilience total" score average was low at 86.774 ± 10.648 (min=55 and max=105). It has been found that emotional intelligence affects psychological resilience in nurses. The psychological resilience of nurses working in intensive care units was lower than that of clinical nurses. Healthcare organizations need to increase the well-being of nurses in complex working environments with intervention programs emphasizing emotional intelligence and psychological resilience. The results of this study are important to encourage the improvement of nurses' well-being.

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INTRODUCTION

Nurses constitute a professional group closest to the patient and use knowledge, skills, and available resources effectively and efficiently to provide quality care that meets the needs of individuals (Alsufyani et al., 2022). Nurses work in many units in hospital environments, such as emergency and operating rooms, general clinics, and intensive care units (Sprung et al., 2010). Unlike other clinics, intensive care units are areas where human life is at stake, the risk of death is high, and complex treatment and care are provided by a professional team (Rashidi et al., 2023). Intensive care nurses experience more patient losses than nurses working in other units and are known to experience more stressful events while caring for critically ill patients (Turan, 2020). In addition to practical skills and knowledge, nurses need problem-solving, decision-making, practical communication skills, and the right decisions in stressful situations (Doğan Kuday & Erdoğan, 2023). At this point, emotional intelligence is a skill that can be improved, reduce the adverse effects of stressful situations, and ensure correct decision-making and cooperation within the team (Dehnavi et al., 2022).

Emotional intelligence is being aware of and observing the emotions of others and one's own emotions and using this information to manage one's thoughts and actions (Kuday & Erdoğan, 2023; Mao et al., 2021). It can also be defined as the ability to perceive and express emotions accurately and harmoniously and to regulate one's and others' emotions (Barr, 2023). Improving emotional intelligence skills affects the performance of nurses and ensures that negative emotions are

experienced less (Moradian et al., 2022). The level of emotional intelligence positively affects the quality and dimensions of nursing care, and therefore, it is thought that nurses with a high level of emotional intelligence can provide patient care more effectively (Kuday & Erdoğan, 2023; Khademi et al., 2021).

Another important concept that affects the quality of nursing care is psychological resilience. Psychological resilience is defined as the ability of people to handle or overcome various difficulties they encounter in life, which ensures well-being (Howie et al., 2022; Hollywood & Philips, 2020; Randall et al., 2023). Nurses may experience intense stress due to excessive workload, shift work, and staff shortages (Turan, 2020). For this reason, nurses need to be psychologically resilient to avoid being worn out professionally and personally (Rashidi et al., 2023). Increasing psychological resilience in nurses is a fundamental concept in identifying potential problems, preventing the identified problems, improving coping skills, increasing work engagement and happiness (Jeong et al., 2023), reducing emotional exhaustion, providing safe and quality patient care, and contributing to their personal and professional development (Yu et al., 2019; Chiang et al., 2021; Haugland et al., 2023). While emotional intelligence and psychological resilience appear as a coping strategy against professional problems (Alsufyani et al., 2022), it also contributes to clinical competence, quality of nursing service, and patient satisfaction (Dehnavi et al., 2022).

Emotional intelligence (EI) and psychological resilience are critical factors influencing nurses' ability to manage workplace stressors and deliver quality care (Chikobvu & Harunavamwe, 2022). Despite growing recognition of their importance, the existing literature reveals a paucity of studies examining the interplay between EI and psychological resilience among nurses, particularly across different clinical settings (Mao et al., 2022; Abualruz et al., 2024). This gap underscores the need for research to understand how these constructs interact and impact nursing professionals. By evaluating EI and resilience concurrently, this study addresses a critical oversight in healthcare literature, providing foundational insights for developing targeted interventions. Such efforts are essential to enhance nurses' well-being, reduce burnout, and improve patient outcomes in high-pressure environments.

Previous findings suggest that nurses in intensive care units (ICUs) exhibit lower psychological resilience than their counterparts in general clinical settings, potentially due to critical care's heightened emotional and physical demands (Abualruz et al., 2024). This disparity highlights the urgency of identifying modifiable factors, such as EI, that could bolster resilience in vulnerable populations (Ibrahim et al., 2024). The current study investigates whether EI levels differ between ICU and clinical nurses and explores how these differences correlate with resilience. By answering these questions, the research aims to inform evidence-based strategies to strengthen nurses' adaptive capacities, ultimately fostering healthier work environments and sustainable healthcare systems.

The significance of this study lies in its dual focus on EI and resilience, two constructs integral to nurses' ability to navigate complex challenges while maintaining professional efficacy. As healthcare systems face staffing shortages and escalating demands globally, prioritizing nurses' psychological well-being has become imperative (Wilson et al., 2022). By elucidating the relationship between EI and resilience, this research provides actionable data to design training programs and supportive policies tailored to nurses' needs. Such initiatives benefit individual practitioners and contribute to organizational resilience, ensuring the delivery of safe, compassionate care in an increasingly demanding healthcare landscape.

METHOD

This study used a quantitative design with a cross-sectional approach. The research population consisted of intensive care and clinical nurses working at a university hospital (N=690). According to the one-tailed independent sample t-test analysis with 95% confidence (1- α), 95% test power (1- β), and $d = 0.5$ effect size using the G*Power universe known sampling method, it was determined that the inclusion of 248 nurses in the study was sufficient. During the research process, the purpose of the research was explained first, and data was collected from 252 nurses who agreed to participate in the study and obtained consent. This research complied with the Declaration of

Helsinki. Institutional permission was received from Tokat Gaziosmanpaşa University Social and Human Sciences Research Ethics Committee (Ethics Committee No: 16.02.2023-01/33) and Gazi University Health Research and Application Hospital Chief Physician. The data collection process began after obtaining the ethics committee and institutional permission. After the researchers invited the nurses to participate, all information about the study was explained to the interested nurses. The nurses who agreed to participate in the study were asked to sign the "Informed Consent Forms." Other data collection tools were applied to the nurses who received information about the study and signed the "Informed Consent Form." The researcher voluntarily collected the data using one-to-one interview techniques at one center between 1 April and 1 August 2023. A personal information form, the Adult Psychological Resilience Scale, and an Emotional Intelligence Scale were used to collect the study data. The data obtained in the research were evaluated on a computer using the SPSS 22.0 statistical software. Frequency and percentage analyses were used to determine the descriptive characteristics of the nurses participating in the research, and mean and standard deviation statistics were used to examine the scale. Kurtosis and skewness values were examined to determine whether the research variables showed normal distribution. The relationships between the dimensions determining the nurses' scale levels were examined through Pearson correlation and linear regression analyses. Independent group t-tests, one-way analysis of variance (ANOVA), and post hoc (Tukey, LSD) analyses were used to examine the differences in scale levels based on the descriptive characteristics of nurses.

RESULT

The results of this study are presented in tabular form as follows. Table 1 contains information about the descriptive characteristics of the nurses participating in the study. Regarding age, 59.9% of the nurses were 30 or under, 29% were 31-40, and 11.1% were 41 and over. Of the participants, 88.1% were women, and 11.9% were men. Concerning marital status, 51.6% were married, and 48.4% were single. Regarding education level, 90.9% had a bachelor's degree, while 9.1% had a master's degree. Of all participants, 43.3% worked for 2-5 years, 9.1% for 0-1 years, and 30.6% for 11 years or more, depending on their unit. Nurses working in intensive care units constituted 46%, while 54% worked in inpatient services. Regarding nurses' feelings about the profession, 51.6% said, "I love nursing," 29% said, "I do nursing because I feel it is necessary," and 10.7% said, "I do not like nursing." Regarding happiness levels, 30.6% were "always and mostly happy," 49.2% were "sometimes happy," and 20.2% were "very rarely happy."

Table 1. Distribution of nurses according to descriptive characteristics

Groups	Frequency (n)	Percent (%)
Age		
≤30	151	59.9
31-40	73	29.0
≥41	28	11.1
Gender		
Female	222	88.1
Male	30	11.9
Marital status		
Married	130	51.6
Single	122	48.4
Education status		
College Graduate	229	90.9
M.Sc. Degree	23	9.1
Time in profession		
0-1	23	9.1
2-5	109	43.3
6-10	43	17.1
≥11	77	30.6
Working unit		

Intensive care unit	116	46.0
Wards	136	54.0
Feelings towards the profession		
I love nursing	130	51.6
I think nursing is the best career for me	22	8.7
I do nursing because I feel it is necessary	73	29.0
I do not like nursing	27	10.7
Happiness level in nursing		
Always and mostly	77	30.6
Sometimes	124	49.2
Very rare and never	51	20.2

The total emotional intelligence levels and psychological resilience of nurses are given in Table 2. Nurses' "total emotional intelligence" average was 139.060 ± 24.129 (min=33 and max=180). The average score of "psychological resilience total" was 86.774 ± 10.648 . (min=55 and max=105).

Table 2. Average emotional intelligence and psychological resilience scores

	N	Mean	SD	Min.	Max.	Kurtosis	Skewness	Alpha
Emotional intelligence total	252	139.060	24.129	33.000	180.000	0.845	-1.497	0.949
Awareness of emotions	252	29.135	5.765	6.000	36.000	1.025	-1.492	0.912
Managing emotions	252	26.278	5.703	8.000	36.000	0.711	-0.789	0.923
Self-motivation	252	27.960	5.614	6.000	36.000	0.852	-1.196	0.907
Empathy	252	28.758	5.058	6.000	36.000	0.236	-1.462	0.903
Social skills	252	26.929	5.779	6.000	36.000	0.821	-0.911	0.000
Psychological resilience total	252	86.774	10.648	55.000	105.000	-0.372	-0.318	0.878
Relational resources	252	24.556	3.742	10.000	30.000	0.648	-0.672	0.857
Individual resources	252	21.540	2.756	12.000	25.000	0.796	-0.811	0.873
Cultural and contextual resources	252	19.175	4.238	5.000	25.000	0.345	-0.710	0.877
Familial resources	252	21.504	3.602	5.000	25.000	0.745	-1.361	0.856

In terms of the correlation analyses between emotional intelligence total, and awareness of emotions, managing emotions, self-motivation, empathy, social skills, psychological resilience total, relational resources, individual resources, cultural and contextual resources, familial resources scores are examined, a statistically significant relationship was found between total psychological resilience and total emotional intelligence is shown in Table 3 ($p < 0.05$).

Table 3. Correlation analysis between emotional intelligence and psychological resilience scores

		Emotional intelligence Total	Awareness of emotions	Managing emotions	Self-motivation	Empathy	Social skills
Psychological resilience total	R	0.286**	0.302**	0.263**	0.259**	0.206**	0.202**
Relational resources	R	0.346**	0.366**	0.270**	0.305**	0.259**	0.289**
Individual resources	R	0.347**	0.388**	0.239**	0.341**	0.289**	0.243**
Cultural and contextual resources	R	0.092	0.067	0.172**	0.094	0.027	0.033
Familial resources	R	0.113	0.138*	0.114	0.079	0.085	0.071

A significant regression analysis determined the cause-and-effect relationship between emotional intelligence and psychological resilience ($p < 0.05$). It is shown in Table 4 that the total emotional intelligence score increased the total level of psychological resilience.

Table 4. The effect of emotional intelligence on psychological resilience

Independent variable	Non-standardized coefficient		Standardized coefficient	t	P	95% confidence interval	
	B	Se	β			Lower	Upper
Coefficient	69.209	3.774		18.338	0.000	61.775	76.642
Emotional intelligence	0.126	0.027	0.286	4.723	0.000	0.074	0.179

*Dependent variable=psychological resilience total, $r=0.286$; $r^2=0.078$; $f=22.310$; $p=0.000$; durbin watson value=1.743

DISCUSSION

In this study, 49.2% of the nurses were determined as "sometimes happy" and 20.2% as "very rarely happy" according to their happiness levels. Previous studies have reported that by strengthening the psychological resilience of nurses, their commitment to work, happiness levels, and, therefore, the quality of care increase (Flanders et al., 2019; Chikobvu & Harunavamwe, 2022; Haugland et al., 2023). Our findings reveal that the happiness levels of nurses should be increased. It was determined that nurses' "total emotional intelligence" score average was generally high at 139.060 ± 24.129 (Min=33; Max=180). When the studies in the literature are examined, it is seen that the emotional intelligence levels among nurses are similar. Similar to our study results, in a study conducted with 211 nurses, most of whom worked in intensive care, it was determined that nurses' emotional intelligence was moderate (Moradian et al., 2022). Again, when we examine the literature, the emotional intelligence levels of nurses were found to be at a moderate level in the studies conducted by Sun et al. (2020) and Ordu et al. (2022). Al Oweidt et al. (2023) and Abualruz et al. (2024) found a high level of emotional intelligence in their studies with nurses. Our findings are consistent with other studies in the literature in terms of providing similar results. The high emotional intelligence of nurses is a factor that needs to be developed for their coping levels in the clinical environment.

In our study, the "total psychological resilience" average of nurses was found to be 86.774 ± 10.648 (min=55 and max=105), which is moderate. Similar to our study, it has been reported that the psychological resilience of nurses in intensive care units is at a moderate level (Rashidi et al., 2023; Almegewly et al., 2022; Abualruz et al., 2024). It has been observed that the "Resilience Development Program" applied to mental health nurses increased their psychological resilience and well-being and that this intervention program effectively coped with stress and regulated emotions in nurses (Foster et al., 2024). Contrary to our findings, there was also a study in which nurses had low psychological resilience. Nurses' excessive workload and exposure to traumatic situations are associated with lower levels of emotional resilience (Abdulmohdi, 2023). Differences in resilience levels in the literature may vary depending on differences in sample characteristics, the patient profile they care for, or other factors.

When the relationship between emotional intelligence and psychological resilience was examined in our study, a statistically significant relationship was found between total psychological resilience and total emotional intelligence ($p < 0.05$). The regression analysis conducted to determine the cause-effect relationship between emotional intelligence and psychological resilience found that emotional intelligence increased psychological resilience. Similar findings were observed in previous studies. For example, a study conducted by Mao et al. (2021) showed that training to improve emotional intelligence increased emotional intelligence and psychological resilience in nurses, reduced stress, and improved inpatient experience. Abualruz et al. (2024) found that high emotional intelligence was associated with higher nurse resilience. Therefore, by strengthening nurses' emotional intelligence, their psychological resilience can be increased, their stress can be reduced, the quality of care can be increased, and their skills can be improved.

In the present study, the total psychological resilience scores of nurses working in intensive care units were lower than those working in inpatient clinics. No study making this comparison was found in the literature, but caring for critically ill patients and patients with delirium in intensive care units can be considered as factors that reduce psychological resilience.

CONCLUSION

This study revealed intensive care and ward nurses' emotional intelligence and psychological resilience. Since nursing concerns human life, emotions, practical communication skills, and empathy development are essential. In order to increase the psychological resilience and emotional intelligence of nurses, in-service training programs or conferences that can help them increase their interpersonal skills, manage their emotions, and develop coping skills, conflict management, and relationship skills are needed. Although the study findings are valuable, they are limited to a single hospital in Turkey. Future research suggests that nurses' emotional intelligence and psychological resilience be evaluated differently. In order to improve nurses' challenging working environments, the concepts of emotional intelligence and psychological resilience should be included in nursing education.

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