

Correlation Between Emotional Intelligence and Critical Thinking Disposition Among Undergraduate Saudi Nursing Students

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Abstract

Introduction: Thinking skills are important concepts that have been discussed by various researchers. Improving and enhancing students' thinking skills has become a fundamental goal of educational systems. There are several methods used to promote inclusive critical thinking in individuals.

Objectives: This study aimed to assess the correlation between emotional intelligence (EI) and critical thinking disposition skills in undergraduate Saudi nursing students.

Methods: This descriptive correlational study design used a convenience sample of 300 undergraduate nursing students. The respondents were selected from King Khaled University. The study utilized the Schutte Self-Report Emotional Intelligence Test (SSEIT) and the Critical Thinking Disposition Scale (CTDS).

Results: The results demonstrated a positive correlation between the two variables ($r = .60, p < .001$). The variables differed among the nursing students depending on their academic year of study ($F = 52.000, p < .001$).

Conclusions: In conclusion, higher levels of EI and critical thinking skills in nursing students are associated with improved problem-solving skills and better judgment, which contribute to the future development of EI and critical thinking nursing professionals.

Keywords

EI, critical thinking disposition skills, undergraduate nursing students

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Introduction

Thinking skills are vital concepts discussed by various researchers. Improving and enhancing students' thinking skills have become a fundamental goal of educational systems. Several methods are used in an individual's inclusive critical thinking (Christodoulakis et al., 2023). Younis et al. (2024) have illustrated that critical thinking seems to be an essential and plausible means of bringing an individual's intelligence into emotional life.

Emotional Intelligence (EI) is defined as an individual's ability to perceive, access, and generate different emotions to provide assistance to thoughts, emotion understanding, knowledge of emotions, and regulation of emotions to promote both intellectual and emotional growth (Shahin, 2020). Research has shown that individuals' extents of failures and success levels are attributed to their EI levels. Rehman et al. (2021) revealed that levels of EI constitute

an individual's beliefs, capacities, and noncognitive skills, and it is important to increase the capabilities of the individual towards facing challenges successfully.

Review of Literature

Previous research studies on EI have illustrated that having better EI levels contributes to increased capabilities during

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problem solving, increased self-efficacy, high levels of spiritual well-being, increased motivation levels, and better socio-emotional adjustments (Dugué et al., 2021). Sk and Halder (2020) stated that EI skills, and critical thinking (CT) skills are vital characteristics of nurses that influence work quality, including clinical decision-making and clinical reasoning abilities, and help them employ evidence-based and knowledge-based practices. The results indicated that EI was not associated with critical thinking skills among the respondents at the commencement of their program.

All subdimensions of EI, such as emotion awareness, social skills, and empathy, were unable to establish a connection with critical thinking disposition (CTD) skills during the first and last academic years of study. However, a positive relationship was found between self-motivation among nursing students in the early academic period and CTD skills upon completion of the nursing program (Wong & Kowitlawakul, 2020).

Undergraduate nursing students face various challenges in their new academic environments, particularly at the beginning of their courses. Critical thinking is an effective mechanism for managing negative encounters and experiences among nursing students. Existing evidence has shown that levels of EI are linked to variations in critical thinking skills (Sk & Halder, 2020). The literature supports the relevance of CTD skills in problem solving (Lismayani et al., 2017; Sk & Halder, 2020) and assisting in making decisions (Heidari & Ebrahimi, 2018). Franco et al. (2017) reported that nursing students with low critical thinking skills were associated with translation loss and risk-taking profiles. On the other hand, nursing students with high critical thinking skills are better able to manage stress (Mahal et al., 2015), exhibit better academic progression, and have reduced levels of procrastination (Goroshit, 2018).

As a self-regulatory aspect of learning, San et al. (2016) found that critical thinking is negatively correlated with academic procrastination among undergraduate students and is an important predictor of social adjustment (San et al., 2016). According to Butler et al. (2017), critical thinking is more efficient and effective than cognitive factors in preventing negative events in the lives of undergraduate students. Therefore, it should be prioritized at higher levels of education and supported by those who recognize its importance in learning, particularly at higher levels of education. Kaya et al. (2017) established that students with moderate levels of EI and low CTD skills exist during the initial and final phases of a nursing program.

Emotional appraisal refers to the process by which individuals assess events and predict their emotional reactions to those events (Harley et al., 2019). According to appraisal theory, there is a consensus on the dimensions that underlie the process of emotion appraisal. When appraising emotions, individuals become concerned about the unfolding events, and they evaluate the significance of those events using various criteria. This includes considering the impact on

overall well-being, as well as whether the events will support or hinder their plans, goals, and coping process.

EI is relevant to the well-being of nurses as healthcare professionals because it helps them manage stress levels, job satisfaction, and retention (Talman et al., 2020). Nurses with higher EI can effectively predict and anticipate individual's emotional reactions (Foster & McCloughen, 2020). Consequently, EI is crucial for developing therapeutic relationships and enables nurses to anticipate patients' emotions, reactions, and responses to health situations and events (Sk & Halder, 2020).

In nursing practice, EI is linked to psychological health, wellness, and help-seeking behaviors. Some patients are able to manage their emotions and have lower help-seeking behaviors. Through EI, nurses can provide care that promotes emotional management among patients and their families, as well as improve nurse-patient relationships.

EI is also associated with better problem-solving skills in nursing practice. It provides nurses with a foundation for effectively managing stress levels by accessing necessary resources and applying effective coping mechanisms, which contribute to improved emotional and psychological health (Sheikhbardsiri et al., 2020). The findings of this study are particularly important as they provide information about the correlation between EI levels and critical thinking disposition skills among undergraduate nursing students. Nursing is a profession that requires nurses to utilize their psychological and intellectual abilities and skills. Therefore, it is important for students to develop these skills during their education. While both EI and critical thinking disposition are considered fundamental qualities for nursing professionals, previous studies have not found consistent relationships between the two variables. This study is crucial in establishing the relationship between EI and critical thinking disposition, as well as identifying ways to improve them. The objective of this study is to determine the correlation between EI and critical thinking disposition among undergraduate nursing students in King Khaled University.

Research Questions

- What is the EI among Undergraduate Saudi Nursing Students?
- What is the Critical Thinking Disposition among Undergraduate Saudi Nursing Students?
- What is the relationship between EI and Critical Thinking Disposition among Undergraduate Saudi Nursing Students?

Methods

Research Design

A descriptive correlational research design was employed. The study design was selected because it allows for the

comparison of many variables at the same time over a short period of time (Grove & Gray, 2018). The research paper is reported based on Strengthening the Reporting of Observational Studies in Epidemiology (STORBE)

Setting

This study was conducted at the King Khaled University. King Khaled University is a public university in Abha.

Sampling Procedure and Sample Size

A convenience sampling procedure was employed to select the participants for this study. The study aimed for a power of 80%, a significance level of 5%, and a medium effect size, which determined a necessary sample size of 300. The inclusion criteria encompassed students of all genders, while the age requirement was set at 18 years or older. Specifically, this study focused on undergraduate nursing students enrolled in the 4th and 8th levels of study.

Inclusion Criteria

Students of both genders were included in the study. The maintained age bracket was 18 years and above. The study included undergraduate nursing students registered for the 4th to 8th levels of study. The study obtained a valid response rate of 95%, with a total of 300 valid responses obtained from students.

Data Collection Procedure

Upon obtaining ethical approval, the study authors arranged a visit to the nursing college to explain the purpose of the study to potential participants. The participants were provided with an information sheet and requested to sign and return the consent form, with assurance of confidentiality. The selected participants were then given a study package, which included a questionnaire, and were asked to return it within two weeks. After two weeks, the researcher sent a WhatsApp reminder to submit the completed questionnaire.

Scale

Demographic Questionnaire

The demographic questionnaire includes age, current academic level (academic semester), source of information about EI and CT.

Schutte Self-Report Emotional Intelligence Test (SSEIT)

This instrument was utilized to determine the levels of EI within the nursing profession (Gignac et al., 2005). The instrument consists of 33 items, which are classified into the following three categories:

- (a) 13 items for measuring the appraisal of emotions and expression of emotions.
- (b) 10 items for measuring emotion regulation.
- (c) 10 items for measuring the utilization of emotions.

The results were measured using a Likert scale, with scores ranging from 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*. The components of the measurement scale were randomly distributed among the respondents. The scores obtained on the SSEIT scale range from 33 to 155.

Critical Thinking Disposition Scale (CTDS)

This instrument consisted of 11 items designed to measure the CTDS of students enrolled in nursing courses (Sosu, 2013). CTDS encompasses two categories of measurement, namely:

- (a) Critical openness—seven items
- (b) Reflective scepticism—four items

Scores were determined using a Likert scale with the following ranges: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*. The obtained results, which provided dispositional scores for the students, ranged from 12 to 55. Disposition scores were calculated as follows: low (12–35); moderate (36–45); and high (46–55). A self-administered questionnaire was developed to gather information from nursing students regarding their age, academic level, previous knowledge of EI, source of information, and perception of the importance of EI and CTS.

Ethical Consideration

The study was approved by the Scientific Research Committee (R21/2023) and the FCMS (145/2023). Informed consent was obtained, and the confidentiality of the study participants was maintained. To ensure confidentiality, each participant was assigned a random number. At no point during the study did the researcher ask the participants to disclose their identity.

Data Analysis

Data were analyzed using the SPSS software version 28. Sociodemographic data were analyzed using percentages and frequencies. Descriptive analysis using standard deviation and mean, and inferential statistical analysis with the help of ANOVA, *T*-test, Pearson correlation coefficient, and regression analysis (R^2) were utilized during the analysis. Correlations between independent and dependent variables were determined using regression analysis (R^2). Changes in the variables were tested using the *F*-test, in which a significant *F* value for R^2 indicated a significant prediction of EI for critical thinking. The level of significance was maintained at

$p \leq .05$, and the coefficient values for the weak, moderate, and strong correlations were maintained at ($r = .1$, $r = .3$, and $r = .5$, respectively)

Results

Sociodemographic Information

The students were young people between the ages of 20 and 22. The average age of the respondents was 20 years, with a standard deviation of ± 2 years. According to the results, 36% of the students were in their fourth year of study, while the remaining percentage were in the first to third years of study. Additionally, 53% of the students indicated that they had prior knowledge of EI, and 73% had information related to critical thinking. The study also identified various sources of information, such as individual reading (37%) and lectures (40%). The students expressed positive views on EI and CTS, as displayed in Table 1.

EI Levels among Saudi Nursing Students

The table below presents the mean scores, expressed in percentages, of the students' thoughts regarding EI. These scores

Table 1. Sociodemographic Information (Valid Response = 300).

Sociodemographic information	Number	Percentage
Age (years)		
20 and below years	88	30%
21 years to 22 years	142	47%
Above 22 years	46	23%
Minimum and Maximum.	19.0–25.0	
Mean and standard deviation	20.0 \pm 2	
Current academic level		
Fourth	87	29.0
Fifth	64	21.3
Six	58	19.3
Seventh	40	13.3
Eighth	50	17.0
Had information concerning		
EI		
Yes	160	53.3
No	140	47.7
CTS		
Yes	220	73.3
No	80	26.7
Information source		
Individual reading	110	36.6
Lecture	120	40.0
Training intervention	33	12.0
Science conference	17	5.6
Workshop	47	15.3
Emotional intelligence and critical thinking are important?		
Yes	300	100

were as follows: EI (68.71 ± 9.71), utilization of emotion (72.87 ± 11.77), emotion regulation dimension (69.58 ± 11.50), and emotion expression and appraisal dimension (64.85 ± 10.30). According to the data shown in Table 2, it was found that half of the students exhibited high levels of EI (55.0%), while 45% had moderate levels.

Critical Thinking Disposition Levels among Saudi Nursing Students

Table 3 presents the students' scores on their thoughts regarding critical thinking disposition (CTD) skills. The overall perception of CTD is shown as (67.76 ± 12.12). The dimension of reflective skepticism had a slightly higher mean of (68.38 ± 17.77) compared to the dimension of critical openness (67.41 ± 12.09). As a result, the majority of students (66%) reported having moderate levels of CTD, while 23.6% reported high levels and 10.4% reported low levels.

EI, Critical Thinking Disposition, and Current Level of Study

Table 4 presents the differences among students based on their level of study in terms of overall EI (EI) ($F = 8.785$,

Table 2. EI Levels Among Saudi Nursing Students.

EI dimensions	Min–Max	Mean percent score
Emotion expression and appraisal	28.0–64.0	64.85 \pm 10.30
Emotion's regulation	26.0–50.0	69.58 \pm 11.50
Emotions Utilization	22.0–51.0	72.87 \pm 11.77
Overall EI	90.0–156.0	68.71 \pm 9.71
Levels of EI		
Levels of EI	Number	percentage
Low	0	0.00%
Moderate	128	45.00%
High	158	55.00%

Table 3. Critical Thinking Disposition Levels among Saudi Nursing Students.

Critical thinking disposition dimensions	Min–Max	Mean percent score
Critical openness	12.0–35.0	67.41 \pm 12.09
Reflective scepticism	4.0–20.0	68.38 \pm 17.77
Overall CTD	16.0–55.0	67.76 \pm 12.12
Levels of CTD		
Levels	Number	Percentage
Low	30	10.40%
Moderate	189	66.00%
High	67	23.60%

Table 4. EI, Critical Thinking Disposition and Current Level of Study.

EI				
Current study level	Emotion expression and appraisal	Emotion regulation	Emotion utilization	Overall EI
	Mean and standard deviation	Mean and standard deviation	Mean and standard deviation	Mean and standard deviation.
Fourth	58.18 ± 10.12	64.43 ± 9.04	73.84 ± 10.00	65.30 ± 8.70
Fifth	66.76 ± 7.44	71.36 ± 12.31	72.87 ± 9.85	69.84 ± 7.76
Six	64.12 ± 7.76	67.15 ± 12.15	65.74 ± 13.24	65.56 ± 9.26
Seventh	63.10 ± 9.47	67.53 ± 12.49	71.13 ± 9.11	67.50 ± 7.76
Eighth	67.82 ± 11.35	73.49 ± 11.25	75.55 ± 11.20	73.55 ± 9.20
<i>F(p)</i>	<i>F</i> = 14.670 (<0.001*)	<i>F</i> = 5.665 (0.001*)	<i>F</i> = 6.741 (<0.001*)	8.785 (<0.001*)

Critical thinking disposition			
Current study level	Critical openness	Reflective scepticism	Overall CTD
	Mean ± SD	Mean ± SD	Mean ± SD
Fourth	63.11 ± 10.43	60.26 ± 17.22	63.58 ± 10.5
Fifth	70.55 ± 14.49	78.38 ± 14.1	73.63 ± 13.48
Six	69.21 ± 12.27	69.84 ± 16.59	69.31 ± 12.53
Seventh	64.54 ± 9.86	70.53 ± 17.53	66.30 ± 9.74
Eighth	73.40 ± 14.20	75.55 ± 17.65	73.20 ± 13.40
<i>F(p)</i>	6.782(<0.001*)	12.647 (<0.001*)	10.500 (<0.001*)

Value in bold signifies $p < 0.05$.

$p < .001$) and overall Critical Thinking Disposition (CTD) ($F = 10.500, p < .001$). Similar patterns were observed in specific dimensions of EI, such as emotion expression and appraisal ($F = 14.670, p < .001$), emotion regulation ($F = 5.665, p = .001$), and emotion utilization ($F = 6.741, p < .001$). Comparable findings were also seen in the critical openness dimension ($F = 6.782, p < .001$) and the reflective skepticism dimension ($F = 12.647, p < .001$) of critical thinking disposition. Specifically, students at the 8th level exhibited high levels of overall EI (73.55 ± 9.20) and overall CTD (73.20 ± 13.40), while students at the 4th level displayed lower levels of overall EI (65.30 ± 8.70) and overall CTD (63.58 ± 10.5).

Correlation Analysis and Regression Analysis Between EI and CTD

Table 5 presents the results of the analysis, which demonstrate a positive and highly significant correlation between overall EI and CTD ($r = .583, p < .001$). Furthermore, the study reveals a moderate relationship between the EI dimension and critical openness, as well as a strong relationship with the reflective skepticism dimension ($r = .477, p < .001$; $r = .525, p < .001$). Additionally, there were positive and moderately significant correlations observed between various dimensions of EI, such as emotional expression and appraisal, emotion regulation, and emotion utilization, and dimensions of CTD, including critical openness and reflective skepticism ($p < .001$).

Table 5. Correlation Analysis and Regression Analysis Between EI and CTD.

EI		CTD		
		Critical openness	reflective scepticism	Overall CTD
Emotion expression and appraisal	r	0.369	0.445	0.487
	p	<0.001*	<0.001*	<0.001*
Emotion regulation	r	0.426	0.402	0.527
	p	<0.001*	<0.001*	<0.001*
Emotion utilization	r	0.373	0.340	0.420
	p	<0.001*	<0.001*	<0.001*
Overall EI	r	0.477	0.525	0.583
	p	<0.001*	<0.001*	<0.001*

Regression Analysis

Table 6 presents the regression coefficient values between EI and its dimensions (independent variables), as well as between EI and CTD (dependent variable), with an R^2 value of .361. This indicates that 36.1% of the variation in critical thinking disposition among the students can be explained by EI and its dimensions ($F = 51.403, p < .001$).

Discussion

EI Level

This study aimed to assess the relationship between EI and critical thinking disposition skills in undergraduate Saudi

Table 6. Multivariate Linear Regression Analysis EI and CTD.

Variable	Estimate	Standard error	T-test	p	Pearson correlation coefficient	Regression coefficient.	F	p
Emotion expression and appraisal	0.240	0.058	4.321	<.001*	0.583	0.361	51.403	<.001*
Emotions regulation	0.315	0.058	4.868	<.001*				
emotions utilization	0.158	0.054	2.624	.006*				

nursing students. The findings of the study showed that 55% of the students had high levels of EI, while 45% had moderate levels. The findings also revealed that nursing undergraduates possess EI, demonstrating an understanding of others' emotions and the ability to regulate and manage their own emotions in a productive manner.

Additionally, the findings highlighted that students view EI as an important skill. This aligns with previous studies that have reported that nursing students recognize the significance of EI in the nursing profession. For instance, Snowden et al. (2015) found that EI skills contribute to the retention of nursing students in nursing programs. Similarly, Cleary et al. (2018) demonstrated that EI skills help undergraduates navigate challenges during clinical practicum placements, enhance their leadership abilities, improve their clinical practice performance, and ensure patient safety.

The study findings regarding undergraduate nursing students' perception of EI as an important skill are similar to those found in a study conducted by Ibrahim et al. (2016). According to Ibrahim et al. (2016), EI skills are crucial for regulating an individual's emotions as well as those of others. It is essential to equip students with interventions that enable them to effectively manage stress. Nursing students who possess high levels of EI demonstrate significant growth in terms of nurse-patient relationships during their clinical placements. Additionally, they exhibit improved competencies in problem solving, communication processes, and collaboration with patients. Moreover, EI aids nursing students in the clinical decision-making process, allowing them to make decisions in a professional and ethical manner (Nordin et al., 2019), rather than basing them solely on their own beliefs and self-interests (Agarwal & Chaudhary, 2013).

The study compared levels of EI between nursing undergraduates and their engineering colleagues, and found that nursing students had high levels of EI. The study by Gaballah et al. (2021) also showed that undergraduates who utilized self-learning methods had higher levels of EI. Additionally, teamwork was found to enhance the development of personality among nursing students, preparing them for a wider range of practice and improving their understanding of their abilities and capabilities.

In line with the findings of Luo et al. (2016), another study examined the factors associated with EI among students pursuing nursing degrees. This study revealed that 46% of participants had normal levels of EI, while 37% had reduced levels and 15% had high levels of EI.

Levels of Critical Thinking Disposition

CTD levels among students were identified in this study. The findings of this research identified that a large number of the respondents had moderate levels of critical thinking disposition (66%), while high levels were witnessed in 23.6% and low levels in 10.4%. Based on the identified CTD levels among the respondents, this study showed that they were able to solve various problems using better reasoning skills. The findings showed that reflective skepticism as a dimension of CTD had higher mean scores than the critical openness dimension.

Kang (2015) identified a great extent of CTD and medium levels of its dimensions (Reflective Scepticism and Critical Openness). This research identified that students could learn from past experiences and question the evidence. Nursing students were open to new ideas and critically evaluated them. The study also reported high levels of critical thinking disposition (97.0%), and low levels were identified in 3% of the respondents. High levels were associated with the utilization of learning techniques such as case studies and problem-centered techniques. Wu et al. (2017) also established high CTD levels among nursing students in China.

Contrary to the study findings, Azizi-Fini et al. (2015) reported low levels of CT among respondents and illustrated that educational programs in nursing curricula had no impact on CT skills. Revision of the curriculum is important, and the implementation of active and innovative teaching methods could help improve students' CTD.

EI, Critical Thinking Disposition, and Current Level of Study

Regarding the levels of EI and critical thinking disposition (CTD) among study respondents at different academic levels, the study found that there were differences in EI levels across students' academic levels. The findings also revealed significant differences in CTD among nursing students at different academic levels. Specifically, nursing students at the eighth academic level demonstrated high levels of EI in dimensions such as emotion expression and appraisal, emotion regulation, and emotion utilization, compared to students at the fourth academic level. Additionally, the study showed that nursing students at the eighth academic level exhibited high levels of critical thinking disposition, particularly in dimensions such as critical

openness and reflective skepticism, compared to those at the fourth academic level.

The study attributed the differences in EI and CTD levels among respondents to the age of the students. The interpretation of the results indicated that the emotional, CT, and cognitive skills of the respondents developed further as they progressed in their academics. As students advanced in the undergraduate nursing program, their experiences and knowledge also increased, which could explain why students at the fourth academic level had lower EI levels and CTD skills due to limited exposure and experience in different stressful learning environments. The research demonstrated that respondents in the first level of studies faced challenges in adjusting to new environments and dealing with various obstacles that caused emotional overload. However, as they advanced in their academic journey, their EI capacity improved, resulting in higher levels of EI compared to previous years. The age of the students also played a role in this progression.

Herr et al. (2018) also found that third-year respondents exhibited better EI levels compared to respondents in the first year of study. The age of nursing students was identified as a crucial factor influencing their levels of emotional maturity, and other studies have reported a significant correlation between respondents' age and EI levels (Ishii, 2018; Por et al., 2020). EI continues to develop throughout life as students are exposed to various experiences, leading to increased competency in its domains (Por et al., 2020).

Kim et al. (2014) discovered that CTD scores improved among junior students as they progressed to senior study levels. The results of this study indicated a decrease in critical thinking disposition among respondents who were not satisfied with the course. Therefore, it is important to develop nursing curricula and learning techniques tailored to students at senior academic levels to enhance their skills.

Azizi-Fini et al. (2015) reported a lack of adjustment in CTD across academic levels among nursing students. Therefore, it is imperative for nursing educators to strike a balance between the content of the nursing course and the time available to foster the growth of this skill among respondents. Furthermore, implementing learning techniques such as the Socratic Method, questioning, group learning, discussions, debates, problem-centered teaching, diary writing, and case study learning could help foster the development of critical thinking skills among nursing students (Akhoundzadeh et al., 2018; Borglin & Fagerström, 2018).

Interrelation of Emotional Intelligence and Critical Thinking Disposition

This study found a significant and positive relationship between EI and critical thinking and decision-making (CTD) skills. Specifically, the dimensions of EI, such as critical openness and reflective skepticism, were found to be associated with CTD skills. These results highlight the

importance of EI in predicting individuals' CT skills. High levels of EI were found to be linked to superior thinking abilities, which suggests that both EI and CTD skills are crucial for success in nursing education and performance in health-care settings.

Previous studies by Ashoori (2019), Fernandez et al. (2019), and Ghanizadeh and Moafian (2011) have also reported similar positive associations between EI and CTD. The use of EI in schools and healthcare organizations is becoming more prevalent due to its positive impact on individual and professional performance, as noted by Nightingale et al. (2018) and Kermanshahi and Sala-Roca (2018).

Given the emotional demands of the nursing profession, it is essential for nursing professionals to possess high levels of EI. This enables them to be compassionate, resilient, and empathic. Kang (2015) found a significant association between EI and CTD, although it remains unclear whether high levels of EI contribute to high CTD skills or vice versa. A study by Kang (2015) demonstrated that respondents were able to apply judgment and reasoning to various situations and regulate their emotional responses accordingly. However, conflicting findings have been reported by Kaya et al. (2018), and a longitudinal study found no significant relationship between the dimensions of EI and CTD skills.

Limitations and Future Study Recommendations

The study has several limitations. First, it was only conducted at one site, which may limit the generalizability of the findings. Additionally, the research design used did not provide much control over confounding variables. Furthermore, non-probability sampling methods were employed, which also restricted the generalizability of the results. Another concern is that the study relied on a self-report instrument, which may introduce a bias towards socially desirable responses.

Based on the study's findings, it is recommended that critical thinking disposition and EI be integrated into nursing education. Nursing courses can be developed to teach CTD skills, and teaching strategies such as self-reading and problem-centered techniques can be utilized to improve these skills among students.

Implication

To further develop and enhance EI and critical thinking skills, it is important to create tailored educational training courses, workshops, and seminars for each academic level. Additionally, it is necessary to evaluate the impact of implementing these intervention programs on the development and enhancement of nursing students' EI and critical thinking abilities. This study should be replicated on a larger sample size in different settings and courses. Furthermore, it is

recommended to examine the influence of a third variable, such as academic achievement, locus of control, self-efficacy, and academic performance, on this association. Nurse educators play a crucial role in fostering EI and critical thinking disposition skills. They can achieve this by implementing dynamic strategies, including incorporating reflective learning experiences, simulation, supportive supervision, mentorship, modeling, and using video for observation and feedback.

Conclusion

This study investigates the relationship between EI and critical thinking disposition (CTD) skills in undergraduate students. The findings of this study indicate that the students displayed EI and possessed moderate levels of CTD. Notably, the levels of EI varied among students at different academic levels. Furthermore, a significant positive correlation was observed between these variables. Based on the results, the study suggests that nursing education should integrate both CTD and EI. Thus, it is recommended that nursing courses be developed to impart CTD skills. To enhance students' skills, teaching strategies such as self-reading and problem-centered techniques can be employed.

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Author Contributions

AH: conceptualization; AH: formal analysis; HN: writing original draft; AH and HN: writing, review, and editing.

Availability of Data and Materials

The authors declare that data are available upon request.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Statement

This study was approved by the Institutional Review Board of Fakeeh College for Medical Sciences (244/IRB/2022) and MOH (R 123/B/2022).


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Use of AI Software

The authors declare that there is no AI used in the study.

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