



## ASSESS THE CRITICAL THINKING DISPOSITIONS LEVELS AMONG BSN STUDENTS OF GULF MEDICAL UNIVERSITY, UAE.

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### ABSTRACT

**Background:** Critical thinking is considered one of the prominent proficient attributes of graduate nurses helping them to make efficient judgement in the present dynamic clinical situations. The concept of critical differs among disciplines. In health care field, it is viewed as the capability to analyze, observe, order and evaluate facts to practice decisive clinical judgement related to patient care. It allows nursing students to think in an organized systematic manner and supports them in conversion to clinical practice. So, higher education institutions are responsible for developing critical thinking dispositions of nursing students across learning programs to produce graduates who are capable of making important clinical decisions.

**Aim:** The study aims at exploring the critical thinking disposition among all levels of BSN students.

**Materials and Methods:** A quantitative research approach with a descriptive cross-sectional survey design will be used to assess the critical thinking disposition in all levels of BSN students. The study population will include all the students enrolled in Gulf Medical University, Ajman, UAE in the academic year 2024 -25.

### Findings and Conclusion:

The majority of participants in the study (39.13%) were aged between 18 and 19 years. Most respondents were female (91.30%), consistent with the gender distribution commonly observed in the nursing profession. Regarding academic level, 32.92% were second-year students, followed by 30.43% first-year, 19.25% third-year, and 17.40% fourth-year students. A substantial proportion (81.36%) of the BSN students reported a CGPA between 3.0 and 3.9. A statistically significant positive association was found between critical thinking disposition and selected demographic characteristics ( $p < 0.05$ ).

### Key Words:

Interprofessional education, Critical thinking Disposition, Evidence Based Practice, Critical Thinking Disposition Assessment, California Critical Thinking Skills Test, Rosenberg Self-Esteem Scale



## Introduction:

Critical thinking is widely recognized as a crucial attribute of graduate nurses, enabling them to make effective and timely judgments in today's complex and dynamic healthcare environment. It is considered a core component of clinical competence, particularly vital in high-stakes settings where nurses are required to assess changing patient conditions, interpret diagnostic data, and take decisive action under pressure. The development of this cognitive skill is essential to prepare nurses to meet the demands of modern clinical practice<sup>1</sup>.

While the concept of critical thinking is interpreted differently across disciplines, in the context of healthcare—and particularly in nursing—it is primarily understood as the ability to observe, analyze, order, and evaluate information to make well-reasoned clinical judgments. This includes not only cognitive processes such as reasoning and problem-solving, but also the application of those processes to patient care scenarios where outcomes significantly impact patient health and safety. In nursing, critical thinking is not a purely academic skill; it translates directly into clinical competence and safe practice<sup>2</sup>.

For nursing students, critical thinking serves as a foundation for applying theoretical knowledge to real-world situations. It allows them to think systematically and logically, fostering the transition from classroom learning to clinical decision-making. This systematic approach supports the development of sound clinical judgments and prioritization skills, which are essential for effective patient care. As such, critical thinking is a cornerstone of professional nursing practice<sup>3</sup>. It is essential that nursing programs are intentionally structured to enhance students' critical thinking dispositions, ensuring that graduates are prepared to make sound clinical decisions in diverse and unpredictable healthcare settings<sup>4</sup>. The goal of nursing education should not only be to impart knowledge, but also to shape attitudes and habits of mind that foster continual analysis, questioning, and refinement of clinical practices.

Critical thinkers must possess not just the ability, but also the disposition to apply critical thinking in their daily practice<sup>5</sup>. Dispositions are the affective dimension of critical thinking—they represent the motivation, willingness, and intellectual attitude toward engaging in thoughtful and



reasoned decision-making<sup>6</sup>. Dispositions are what drive individuals to use their thinking skills consistently, particularly in complex or uncertain circumstances. Without these dispositions, even individuals with strong analytical skills may fail to apply them effectively in practice.

A positive disposition toward critical thinking is associated with a greater likelihood of actually employing those skills in meaningful ways. Individuals who are inclined toward critical thinking are more likely to seek out relevant information, challenge assumptions, and explore alternative solutions. They also tend to demonstrate resilience in the face of uncertainty, a quality that is indispensable in clinical nursing practice. Thus, fostering these dispositions is as important as teaching the cognitive aspects of critical thinking.

Critical Thinking dispositions involve seven traits: truth seeking which means having inclination to seek the best knowledge in a given situation, open- mindedness refers to the tendency to respect the different views of others and consider innovative ideas, systematicity is the predisposition to deal with facts and problems in an ordered manner, cognitive maturity is the tendency to be judicious when making decision and the alertness of the difficulty of the problem, critical thinking self-confidence means having trust in ability of person to reason, inquisitiveness refers to having desire to acquire new information and analyticity which means the ability to be alert, analyze surrounding problems and consider potential consequences of choices and situations <sup>7</sup>.

The study aimed at exploring the critical thinking disposition among all levels of BSN students.

### **Objectives of the Study:**

1. To assess the critical thinking disposition among all levels of BSN students.
2. To determine the association between selected demographic characteristics and critical thinking disposition level.

### **Methodology:**

A quantitative research approach with a cross-sectional descriptive survey design was used to assess the critical thinking disposition levels among BSN students of Guld Medical University, UAE. All students studying in first, second, third and fourth year of Bachelor of Science in Nursing and enrolled in 2024-25 academic year will be recruited as samples for the study. An estimated sample size of 180 will be considered for the study. Total enumeration sampling technique was used to select 180 BSN students. Demographic variables were collected with the help of a structured questionnaire.



Critical Thinking Disposition Assessment (CTDA) Scale was used to assess the critical thinking ability of BSN students. The CTDA Scale consists of positive and negative statements. It is estimated to take an average of 15-20 minutes to complete.

**Findings:** The demographic characteristics are presented in the table 4.1.

**Table 4.1 Frequency and Percentage Distribution of Demographic variables of BSN students. (n=161)**

Demographic Characteristics	Frequency (%)
<b>Age distribution</b>	
• 17 - 18 years	51 (31.67%)
• 18 - 19 years	63 (39.13%)
• 19 – 20 years	25 (15.53%)
• 20 – 21 years	17 (10.56%)
• 21 – 22 years	5 (3.11%)
<b>Gender wise distribution</b>	
• Females	147 (91.30%)
• Males	14 (8.70%)
<b>Year of Study</b>	
• First Year	49 (30.43%)
• Second Year	53 (32.92%)
• Third Year	31 (19.25%)
• Fourth Year	28 (17.40%)
<b>Previous Year CGPA</b>	
• CGPA of 4.0	21 (13.04%)
• CGPA of 3.0 – 3.9	131 (81.36%)
• CGPA of 2.0 – 2.9	9 (5.59%)

**Table 4.2 Overall Mean and Standard Deviation of 7 Sub-categories (n=161)**

Sub - Categories	Mean $\pm$ SD	Minimum Score	Maximum Score
1. Truth Seeking	39.40 $\pm$ 5.00	28	53
2. Open-mindedness	43.81 $\pm$ 3.84	34	55
3. Analytical	42.88 $\pm$ 4.39	31	58
4. Systematic	40.19 $\pm$ 4.39	30	52
5. Self-confidence	32.33 $\pm$ 5.17	17	45
6. Inquisitiveness	42.68 $\pm$ 5.27	27	58
7. Maturity	37.13 $\pm$ 4.88	24	49
<b>Total</b>	<b>287.41 <math>\pm</math> 18.95</b>	<b>240</b>	<b>336</b>

Of the estimated 180 samples, 19 had incomplete information so they were not included in the data analysis. Therefore, statistical analysis was performed on 161 BSN students including 147 females

(91%) and 14 males (9%) samples. The mean score of BSN students in CTDA scale was 287.41 and standard deviation  $\pm 18.95$  that was in the positive level, and the highest score of the nurses was in the open-mindedness Table 4.2. The present study found the overall CTDA scores of BSN students' mean score was  $287.41 \pm 18.95$  showed that the students' utilized some level of critical thinking.

The CTDA scale of the BSN students gender wise was calculated. The present study found the overall CTDA scores for female BSN students' mean score was  $217.40 \pm 19.70$  and male BSN students' mean score was  $213.61 \pm 23.71$  showed that the students' critical thinking tendencies were low.

**Table 4.3** Association among Critical Thinking Disposition Assessment Sections and Demographic characteristics

(n=161)

Demographic characteristics	Truth Seeking	Open-mindedness	Analytical	Systematic	Self Confidence	Inquisitiveness	Maturity
Age in years							
18 – 19 years	33.49*	64.65*	35.82*	44.01*	61.35*	34.26*	29.06*
19 – 20 years							
20 – 21 years							
Gender							
Female	18.54	9.12	9.65	9.38	18.90	21.54	10.51
Male							
Year of Study							
First year	24.44*	28.26	26.93*	7.65	11.26	12.81	9.23
Second year							
Third year							
Fourth year							
Last year CGPA							
CGPA of 4.0	18.54	7.12	7.65	9.33	8.90	18.54	12.81
CGPA of 3.0-3.9							
CGPA of 2.0-2.9							

\*Significant (P<0.05).



**Table 4.3** provides an insight into the distribution of various demographic characteristics of BSN students. The factors examined included age, year of study and last year CGPA.

BSN students across age groups 18–19, 19–20, and 21–22 years demonstrated the use of critical thinking in both theoretical and clinical learning tasks. A statistically significant association ( $p < 0.05$ ) was observed between age and all seven sub-domains of critical thinking disposition: truth-seeking (33.49), open-mindedness (64.65), analyticity (35.82), systematicity (44.01), self-confidence (61.35), inquisitiveness (34.26), and maturity (29.06). In contrast, gender showed no significant association with any of the critical thinking sub-domains. With respect to the year of study, first-, second-, and third-year students exhibited a significant association with the sub-domains of truth-seeking and analyticity, while no significant relationship was found for the remaining sub-domains. CGPA, categorized as 4.0, 3.0–3.9, and 2.0–2.9, showed no significant association with critical thinking disposition.

## Discussion:

Several studies have emphasized the importance of developing critical thinking dispositions among nursing students to enhance academic achievement and clinical competence. A comparative descriptive study at Suez Canal University assessed 251 nursing students using the California Critical Thinking Disposition Inventory, revealing significantly higher scores in truth-seeking, open-mindedness, self-confidence, and inquisitiveness among third-year students. Similarly, a study at Sohag University involving 448 first- and fourth-year students found that fourth-year students demonstrated significantly higher levels of critical thinking and problem-solving skills, which correlated positively with academic achievement. Another intervention study in Nigeria evaluated the effect of cognitive-behavioral reflective training (CBRT) on critical thinking disposition. While post-test results showed no immediate significant differences, follow-up assessments indicated sustained improvements in the intervention group. These findings highlight the need for structured training programs and innovative teaching strategies to cultivate critical thinking and problem-solving skills in nursing education.



Several studies have explored factors influencing critical thinking disposition among university students. In Turkey, a study of 1,164 graduating students found reading habits to be the strongest predictor, followed by mother's education level, CGPA, and university entrance scores, while age and father's education had minimal impact. A 2020 cross-sectional study in northern Iran involving nursing students found significant positive relationships between critical thinking disposition and age, academic semester, and interest in the major, with no significant difference between married and single students. Another study on 315 medical students in Ahvaz, Iran, reported above-average levels of critical thinking disposition but found no significant association with academic year or GPA, suggesting that current educational strategies may be insufficient for enhancing critical thinking skills. These findings highlight the need for targeted educational interventions to foster critical thinking in health sciences education.

## **Conclusion:**

Critical thinking disposition is an essential attribute of professional nursing competence, influencing both clinical judgment and decision-making. The findings of this study indicate that while nursing students generally demonstrate a favorable disposition toward critical thinking, variations exist across different sub-domains and demographic groups. This underscores the need for targeted educational strategies that strengthen specific dimensions such as truth-seeking, analyticity, and open-mindedness. Educators, academic leaders, and curriculum planners must prioritize the integration of critical thinking development into nursing education, not only as a cognitive skill but as a foundational professional competency. Structured training programs, reflective learning opportunities, and diverse teaching methodologies should be embedded across all academic levels to ensure that nursing graduates are well-equipped to meet the complex demands of modern healthcare environments. Promoting critical thinking disposition should be viewed as a continuous and intentional process that begins early in the nursing curriculum and is reinforced throughout the academic journey.





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