

Relationship Between Critical Thinking Disposition and Self-esteem in Bachelor Nursing Students

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doi: <http://dx.doi.org/10.13005/bbra/1369>

(Received: 08 April 2014; accepted: 07 May 2014)

Having critical l thinking requires a conscious personality and with power of decision-making Which is of the characteristics of self-esteem. This study aimed to investigate the relationship Between critical thinking and self-esteem in first and fourth year nursing students of Jeroft University. This correlational study was conducted with 76 first and fourth year nursing students in Jeroft University of Medical Sciences in 2011. The data collection tool was a questionnaire consisted of three parts : The first part demographic specifications, the second part California Critical Thinking questionnaire, the third part Rosenberg Self-Esteem questionnaire. SPSS17 Software and statistical tests of t-test and chi-square were used to test for data analysis. 81 nursing students completed the questionnaires of California Critical Thinking Skills Test. The total mean score of critical thinking was 11.5 ± 3.07 . There was no significant difference between the total score of critical thinking in both studied levels, namely first year students 11.8 ± 2.18 and fourth -year students 12.33 ± 2.87 ($p = 0.347$). The results showed that the highest percentage of students had unstable critical thinking(86.8%).73.7 percent of them had moderate self- esteem. Self-esteem in the fourth year students was significantly higher than the first year students ($p < 0.05$) and there was a significant Relationship between critical thinking and self- esteem ($p < 0.05$). Results showed that students with higher self-esteem have more favorable critical thinking and a Positive and direst relationship was found between these two features. Since this kind Of honking g plays an important role incorrect clinical decision making, it is needed that university Professors academics to plan self-esteem enhancement methods to promote critical thinking, Because sufficient self-esteem is essential for capable critical thinking growth.

Key words: Critical Thinking, Nursing Students, Self-Esteem , Training.

One of the unique characteristics of human being is to have the thinking talent, human has been able to continue its survival in compared to other organisms with the help of thinking talent incomppliance with the environment and dealing with problems and to cause the emergence of great civilizations and cultures. Attention to thinking is more important In the realm of education. Because

the ultimate purpose of education is to make people able to the logical method thinking and constructive thinking¹.continuous and incremental changes in the 21st century .Behoove that human its pay more mental effort to achieve goals. Efforts such as creativity, intelligence, seriousness are of human's intellectual cap abilities despite, the great changes in technology which has been created by science In the fields of improving health, economy and lifestyle , new problems and complexities have been also appeared inhuman life that have created many great mental challenges for the human²

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.Therefore, it is the time that education, particularly higher education provides some opportunities for learners so that they be able to assess a lot of new Knowledge and information facing with them, while doing the intellectual activities³. So in teaching matter, the field of investigation and research for learners should be created while progress of exceptionable spirit; because one of main goals of educationist To develop individuals' critical thinking⁴. Nursing is not excluded from this rule too. Problem-solving ability in patient's bedside is very precious for care of him/ her. By strengthening the critical thinking skills nurses will be able to obtain the correct decision, and provide valuable services in the care process⁵. Nurses who don't have critical thinking, they themselves become a part of the problem. Critical thinking is the essential component to clinical decision making and professional competence⁶. It is required to emphasize on the learning of critical thinking for better performance in nursing education. In addition, how students Learn to think critically and properly⁷. Given the importance of this issue, several studies have been conducted on critical thinking in the different countries. So that Kawashima writes : Achievement of critical thinking skills has become the main purpose of medical education⁸.Promotion of critical thinking and problem solving ability by evaluating the evidence, using authentic and detailed and extensible interpretations is one of the supported global objectives in most medical schools and the conditions of improvement in students' critical thinking skills are performed during the study⁹⁻¹⁰. Despite the importance of this issue, education experts have had strong gains about the inability of students in critical thinking in recent years .Because traditional training methods will teach a lot of theory information leading to the some alumni who are not taught for solving the problems of society. In fact ,teaching methods in universities teaches more a combination of concepts and information, but they don't teach analysis prioritization of positions, organizing the new knowledge which is prerequisite for critical thinking and effective and meaningful learning guide¹¹. Distler and colleagues conducted a study strengthen the critical skills in students⁵. Educational specialists are severely concerned about medical students 'disability in critical

thinking¹². Babamohamadi and colleagues declared in a study that last Continuous undergraduate students are better than the discontinuous Undergraduate students and emphasized on the role of university in strengthening these skills¹³. Individual characteristics of students are the major factors influencing on the development of their critical thinking in nursing education¹⁴. And one of the normal personality features is to have self-esteem¹⁵.Person with critical thinking requires a personality which acts consciously and persists on his/her opinions and commits to values and the amount of self-esteem influences on all levels of his/her life, including the thinking, feeling and actions¹⁶.In other words among essential and important factors for the development of critical thinking is to have sufficient independence and self-esteem and having independence , confidence and responsibility are essential for nursing students in order to have a proper decision – making and judgment in different clinical conditions¹⁷.The amount of self-esteem affects the individual's life, including how to think the feeling and thinking. Regarding the relationship between self-esteem and critical thinking in nursing students . Sooliman writes: Students with higher self-esteem have obtained more favorable score for critical thinking¹⁸. It is necessary to identify the factors affecting students' tendency in using this aspect of thinking accordingly, researcher decided to conduct this study with aim of "Determination of the relationship between self-esteem and critical thinking in first and forth year bachelor nursing students of Jeroft City in 2011".

METHOD AND MATERIALS

This descriptive analytical study was conducted on 81 first-and fourth-year nursing students studying in Jeroft University of Medical Sciences in 2011. The studied statistical population consisted of all first-and fourth-year Nursing students. No sampling was done Criteria for entry into the study include: willingness to participate in the study first-and fourth-year nursing student, the exclusion criteria were unwillingness to cooperate in the study. The data was collected using a questionnaire which was composed of three parts. The first part of the questionnaire included demographic information such as age,

sex, average, and clinical experience. The second part of the questionnaire contained specific questions to assess critical thinking skills and in other words, California critical thinking skills test form B¹⁷. This test is considered as a developed tool to measure students' critical thinking skills and consists of 34 multiple-choice questions which are designed in five areas of the cognitive skills of critical thinking (analysis, evaluation inference, deductive reasoning, and inductive reasoning). Method of scoring is such that each correct answer gives one score to the person and, Sum of the correct answers of test constitutes the total score. Minimum score is zero and maximum score is 34. Based on the obtained score, critical thinking is divided in to the two levels of strong and weak. A score of 16 or higher indicates the strong critical thinking and score less than 16 indicates the weak critical thinking. Time for answering the questions is 45 minutes. The test measures the skills of cognitive and principal and critical thinking in the areas of analysis, evaluation, inference, deductive reasoning, inductive reasoning⁸ and the third part of the questionnaire contained questions of *Rosenberg self-esteem questionnaire* containing ten general terms and five sentences with the negative words and five sentences with positive words are expressed there and each question is scored based on a four option scale of completely indicates a high self-esteem, score 15 to 25 indicates the medium self-esteem and score less than 25 represents the low self-esteem¹⁹. Validity and reliability of both questionnaires have been validated in previous studies^{15,20}. As Facione determined the measuring tool of California critical thinking (form B) 71% by using the Kuder - Richardson formula 20 during an extensive study and expressed that this tool has a better comprehensiveness than the other tools¹⁶. This questionnaire has been used in studies inside Country and there liability and validity has been calculated and confirmed¹³. Reliability of *Rosenberg self-esteem questionnaire* has been calculated by using Cronbach's alpha coefficient ($r=76\%$)²⁰. Given that these two questionnaires have been coefficient ($r=76\%$) (20). Given that these two questionnaires have been used in the internal studies, its validity and reliability have been determined Researcher, based on a predetermined schedule, referred to the sections of fourth-year students' internships place and to the

faculty of first-year students, and after accessing to the samples and providing a brief explanation about the purpose of research and getting their approval proceeded to collect data in specified time and location. In order to observe entirely on their willingness, questionnaires were completed anonymously and the results were they were ensured that completely confidential and the results wouldn't be recorded in their file. Upon completion of the questionnaire by students, obtained data were analyzed by statistical chi-squared test and t-test softwares *spss 17* and statistical.

RESULTS

Average age of students participating in the study was $22/3 \pm 2/6$ With minimum 18 year and maximum 28 year. Results showed that the average age of first and fourth year male students was 20 ± 8 and $23/3 \pm 9.3$, respectively, The female students $21 \pm 2/9$, $21/6 \pm 2.1$, respectively. Other characteristics such as gender and year of education, critical thinking and self-esteem are presented in Table 1. .percent (34 people) of first year students had weak critical thinking and 2/6 percent (2 people) of them has strong critical thinking. While 80 percent (32 people) of fourth year students had weak critical thinking and 20 percent (8 people) of them had strong critical thinking. Self-esteem of first year Students was weak in 8/3 percent (34 people), medium in 75 percent and strong in 16/7 percent.

While self-esteem of fourth year students was weak in 2/5 percent (34 people), medium in 72/5 percent and strong in 25 percent which was statistically significant ($p < 0.05$). Chi-squared test showed a significant relationship between the

Table 1. Evaluation of some variables in nursing students

Variable	Number	Percentage	
27/6	21	Male	Gender
72/4	55	Female	
47/4	36	First	Academic year
52/6	40	Fourth	
86/6	66	Weak	Critical thinking
13/2	15	Strong	
5/3	4	Weak	Self-esteem
73/7	56	Medium	
21	16	Strong	

tendency to the critical thinking and self-esteem in the first and fourth year students (<0.05). The

comparison of mean scores of critical thinking and self-esteem are presented in Table 2.

Table 2. Comparison of mean scores of critical thinking and self-esteem in nursing students in terms of gender and academic year

p-value	T-test	Academic Year		p-value	T-test	Gender		Variable
		Fourth	First			Female	Male	
0/347	0/895	2/87 \pm 12/33	11/81 \pm 2/18	0/869	0/165	12/11 \pm 2/41	12 \pm 2/79	Critical Thinking
0/331	0/897	20/85 \pm 3/94	19/83 \pm 3/69	0/996	0/500	20/29 \pm 3/69	20/29 \pm 4/44	Self-esteem

DISCUSSION

Requirement to develop the critical thinking has become as a comprehensive request at University. The findings show it is needed to consider double efforts to develop the attention to the critical thinking. The main objective of this paper was to identify and compare the critical thinking scores of first and fourth year nursing students of the Jeroft University of Medical Science. Results showed that scores obtained from the Whole California Critical Thinking Test (Form B) and by both groups were Weak scores (86/8). On the other hands, both studied groups were at the weak level in all areas of critical thinking test and there was no significant Difference between the first and fourth year students' critical thinking that is consistent with the results of researchers Eslami and Babamohammadi, Tashi, Mirmolaie^{13,21,22,23}, but it is inconsistent with the findings of Mash'oufi, Khalili, Javadi and Gharib colleagues^{14,24-27}. It is important to note that the rate of thinking in first year as well as fourth year is located in weak level. Several Factors can explain this weakness between the first and last year students in Iran's universities. For example, it is not emphasized on the student's Sensitivity to the learned information during the years of education and lecturing method is more used for courses and active teaching method is less emphasized. The dominant method of presentation, in many training centers, causes the passive education to be promoted in where critical thinking is either taught just implicitly or not at all. As Babamohammadi and Khalili said, common methods of training deliver individuals with much theoretical information who are unable to resolve the smallest problems of society in future. Hosseini said in his research that several factors can be

involved in low levels of critical thinking scores that among them we can name to the educational failure in emphasis on memorizing in college class, weak concepts and lack of deep and necessary questioning. Also, for low critical thinking we can mention to the emphasis on multiple-choice exams, lack of appropriate mental environment or psychological security for questions and answers among students and professor, and the development of critical thinking abilities²⁸. The difference of the total average of thinking ability in boy and girl students was not statistically significant; this finding has been emphasized in similar studies of Bahrampour¹⁷. Findings from this study showed that the majority of students had unstable critical thinking and their self-esteem was medium, 73/7 percent. The results of this study revealed that there is a significant relationship between critical thinking and self-esteem which is consistent with a the study of HongKong and Australian nursing students¹⁸. So, teachers in addition to playing the important role in training student in line with the professional fundamentals, have a role in the development of confidence and courage of creativity and decision-making and many other features of critical thinking, especially in clinical environment¹⁴. Sufficient independence and self-esteem is of essential and important factors for the development of critical thinking and for Proper judgment and decision making under different clinical conditions in students. It is required to have independence and responsibility. Therefore, it is therefore necessary for teachers to strengthen the sufficient self-esteem for judgment and decision making in various clinical conditions in them from first year of education¹⁷. Actually, emphasis on self-esteem and critical thinking during training is necessary to maintain safe mental environment.

Parents can also help their children to develop self-esteem, independence, self-efficacy, self-decision making, self-learning, self-reflection and contemplation which all are of the features of critical thinking by encourage, appropriate feedback, appropriate relationships and giving them practice field to express ideas and creativity through which create critical thinking in children to avoid trouble in the future¹⁴. Findings from this study showed that gender has no relationship with self-esteem of studied student; Gharib has found the similar results in his study too²⁷. A student requires to the clinical reasoning and the ability to recall information, putting them together and make a whole, and employ it in a new position. These capabilities should be strengthened and strengthening them causes critical thinking as well as self-esteem to be strengthened²⁹. Researchers have shown that people who were involving in plan of solving the problems Obtained higher scores of critical thinking along with more self-esteem compared to the groups who had were in speech-based programs¹⁹. It is necessary to use the active learning strategies in order to develop the students 'critical thinking. It is also necessary to pay attention to the opinions of students, ask high-level and sophisticated questions by the professor, participation of student in discussing the topics to solving the problem, create the mental security to increase independency, student's confidence by teachers with encourage and emphasis on the students' self-esteem. In this study, the most important limitation of the research was the lack of students' cooperation in participating in the study and lack of completing the high-volume questionnaires with question-related options that required Some patience for the answer. It is suggested to conduct more longitudinal studies and comparative researches and more studies in conjunction .

CONCLUSION

Given the results of present study, nursing students need to think critically so that be able to provide the effective care during compatibility with the extension of their role in future with health care system complexities. Therefore, critical thinking along with development of self-esteem should be considered in medical education system.

ACKNOWLEDGMENTS

This study was supported by a grant of a research project No. 215/90 Kerman university of medical science . We would appreciate participants in this study including all the first and fourth year nursing students of Jeiroft University of Medical Science for the insincere cooperation in this study.

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