

Comparison of the Effect of Lecture and Self-Centered Learning on the Creativity of Nursing Students

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Abstract

Objectives: Creativity is considered as the base of educational evolution. Creativity can increase awareness and ability as an important factor in students. To determine and comparison of two education Program of verbal training and self-centered study on the creativity of nursing students.

Method: This semi experimental study was conducted on 80 second-semester students at nursing college in Kerman, Iran. Students were selected through available sampling. Before and after educational intervention, the students' level of creativity was assessed with questionnaires and data were analyzed with statistical-analytical tests and SPSS software.

Results: A paired t-test revealed that there was no significant difference in the score of creativity before and after the lecture educational method ($p\text{-value} < 0/36$). The level of creativity in the self-centered learning group was significantly higher than that of students in the verbal training group ($p < 0/000$).

Conclusions: The present study suggests a significant difference between self-directed learning and lecture groups so that a Significant increase in the score of creativity was observed in the self-centered learning group and the score of creativity is higher in the self-directed learning than in the verbal method of learning.

Keywords: Creativity, education, Self-centered learning, lecture, nursing student.

Introduction

Nursing is a profession that often encounters unexpected situations and involves taking care of patients with different backgrounds and health conditions, hence nurses need to go beyond routine nursing and acquire creative thinking to make beneficial decisions¹.

Creativity is a important skill that can increase the accelerated growth of science². Studies show that creative students are more successful in the future³. Creativity is the ability to generate ideas and to solve problems with new and appropriate solution⁴. Creativity is a function of ideas, creative thinking, expertise and motivation. Therefore, the environment and the individual's conditions can reveal creativity. One of the goals and needs of student learning is creativity⁵. Assessing and applying various educational approaches seem necessary⁶ they must provide the necessary facilities and requirements for developing the required skills and

take responsibility for change. Education is one of the foundations for sustainable development⁷. It is clear that the use of various training method is beneficial⁸. But, choosing an appropriate educational method with the aim of learning is a teacher's art that should be well-versed in this field⁹. Self-Directed Learning is a Process in which individual initiates, in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing learning strategies and in a systematic review study Chan & etals Writes that To promote creative thinking in nursing students, educators themselves need to be creative in designing courses that allow students to learn actively and convert thoughts into actions¹⁰. Educators should balance freedom and guidance of the students, and allow students to develop constructive and useful ideas. all of the educators who were trying to foster students' creativity, were moving away from traditional teaching. In fact, any education is flexible with creativity¹¹.

Traditional class room settings and instructions may inhibit students' creativity, whereas student-centered activities May be able to release creativity student-centered styles allow students to participate in learning experiences¹². In self-directed learning, each student is responsible for his/her own learning activities¹³ this strategy refers to the learner's degree of responsibility for his/her own learning¹⁴. self-centered learners demonstrate a greater awareness of their responsibility in making learning meaningful and monitoring themselves. student-centered learning aims are to develop learner autonomy and independence¹⁵.

Sajadi believes in his study with title "The impact of the learning contract on self-directed learning and satisfaction in nursing students in a clinical setting" that self-centered learning have allowed more success among nurses to develop professional goals, distance education, and education-based services¹⁶.

Educational method are an important factor in enhancing or suppressing creativity. studies show that Families and educational systems who encourage student to be creative, they do more work correctly activities. Because care should be provided with the best quality and quality, Creativity is more attentive. Education is an important part of the readiness of individuals for their tasks. There are several method for presenting a lesson. One of these method is lecture. Lecture training requires the presence of the teacher and the learner together And they will communicate with each other. There is no mediator between them. Jafari Comparison of lecture and blended teaching method on learning and satisfaction of medical students in biochemistry course reported in his research that Lecture is less student satisfaction, learning and motivation¹⁷.

Douglass & Moriss Write that self-centered study is one of the best ways to develop critical thinking that universities can use¹⁸. Student-centered learning is focused on the student's needs, abilities, interests, and learning styles with the teacher as a facilitator of learning. The aim of the study was to compare of the effect of lecture and self-centered learning on the creativity of nursing students.

Method

This research was a semi-experimental study conducted on the sophomore students of nursing school, Kerman University of Medical Sciences in 2019. This

study was approved by the Research Ethics committee (IR.KMU.REC.1397.539). Students were selected through available sampling and divided into two groups randomly.

Sampling and sample size: Statistical Society Matches the number of samples to compare the effect of lecture method and self-centered study on nursing student's creativity. All students have agreed to participate in the study. They knew that they could go out of study whenever they wished. The 80 students in the two-year nursing school class were randomly assigned to either the lecture learning group(40) or the self-centered learning group(40).all of the research participants were completely voluntary. There were no significant differences in the demographic characteristics including age, gender, educational status. Teaching of both groups was performed by the same instructor, and educational content was similar in both groups. Educational content included the Environmental treatment, Stress and its types and method of coping, and self-concept. The aims of the study, procedure and instructional purposes were explained to the students.

Data collection: Abedi's creativity questionnaire was used to evaluate of creativity level of the students. The questionnaire is compromised of four scales: fluency (the number of ideas and solutions), originality (the rarity of ideas), elaboration (the number of added ideas, and the ability to develop and elaborate on ideas), and flexibility (the number of different categories of relevant responses being used). The questionnaire contains 60 questions with Likert scale. Since the participants were Persian, the Persian translation of this text was used. The validity and reliability of the test was confirmed for the context of Iran by Abedi¹⁹. The creativity levels were assessed immediately before and after lecture and self-centered learning.

Data analysis: The SPSS ver. 24 software (SPSS Inc., Chicago, IL, USA) was utilized. Descriptive statistics (frequency, percentage, mean, and standard deviation) were calculated. Kolmogorov-Smirnov test was used to examine the normal distribution of the data. Paired t-test signed ranks test was used to compare the mean attitude scores before and after the intervention. Independent samples t-test was used to examine the differences between the mean scores of creativity of the two groups. Confidence intervals were set at 95%, while a p-value <0.05 was considered significant.

Results

The mean age of the students was 20.4 (1.6) years. The results showed that, from a total of 80 nursing student, 71.8% were females. Chi-square test results showed that the two groups were homogeneous in terms of gender ($P = 0.33$). Based on paired-t test, there were statistically significant differences between lecture and self-centered learning groups in creativity of score after intervention ($p < 0/0000$). (table 1).

Table 1: Results of paired t-test in comparison of creativity score before and after intervention In two groups

Creativity of Score	Mean(SD)	
	Lecture Group	Self-centered Group
Before the intervention	107/6±3/5	110/3±2/07
After the intervention	109±2/90	117±3/87
t	1/87	0/97
p-value	0/34	0/000
df	16	16

Table 2: Comparison of creativity dimensions in two groups

Dimensions of Creativity	Lecture group Mean (SD)		Self-centerd group Mean (SD)		P (Lecture)	P (Self-Centered)
	Before	After	Before	After		
Fluidity	30(2/57)	31(2/13)	31(1/12)	39(1/97)	0/23 Df=39 t = -1.6	0/000 Df=39 t =5/6
Expansion	21(1/80)	22(1/03)	22(2/2)	25(0/98)		
innovation	31(2/5)	31(0/65)	31(2/34)	38(0/95)		
flexibility	23(2/3)	24(1/5)	25(3/35)	32(1/06)		

The results of the table 2 show that the lecture method had no significant effect on any of the dimensions of creativity ($p < 0/23$). The results also indicate that the self-centered learning has a statistically significant effect on all aspects of creativity. Especially the fluidity and innovation dimension

Discussion

The aim of this study was to compare the effects of lecture and self-centered learning on the creativity of nursing students. Many studies have been done with the aim of comparing lecture method of teaching with other teaching method on different variables. There was no significant difference between groups In demographic characteristics. The results of this study showed that the Creativity of score of students in the self-centered learning group was higher than the creativity levels of students in the lecture group ($p < 0/000$) after the intervention. The study by Noh showed that self-centered learning, led to increased clinical competency and clinical practice satisfaction among nursing students in clinical practice²⁰. The development of creativity are regarded as a valuable factor in the self-centered learning²¹. According to the research results lecture had no statistically significant effect on any aspect of creativity. While self-centered learning enhances

all aspects of creativity especially the fluidity and innovation aspects. In other words, lecture training method didn't fully strengthen level of Creativity. Our results showed that the self-centered learning can improve Student Creativity Score. This finding is in line with similar results for example The results of the study of Yousefy & etals showed that self-centered learning has a growing trend, Because of the its benefits. He states that one of its benefits is innovation and creativity in practice²². Kosucu & etals study with Title" The Effect of Creative Drama Activities on Candidate Teachers' Self- directed skills" in 2017 On 35 teachers showed that teacher satisfaction increased significantly with self-centered approach and that the activities excited them and that they had an enjoyable time²³. Devi & etal found that Self-centered Learning strategies were effective in stimulating thinking and understanding of the topics and to enhance the cognitive skills among the learners. This study was titled " Self-directed learning to enhance active learning among the 2nd-year undergraduate medical students in Microbiology: An experimental study" and performed on 96 medical students²⁴. In a previous qualitative study in 2016 on nineteen clinical nurses working, with titled" iranian Clinical Nurses' Activities for Self-Directed Learning: A Qualitative Study their findings revealed that nurses' activity for

Self-centered Learning was sensory perception, self-evaluation, and suspended judgment they are included, active listening during care provision and ward rounds, careful observation of patients, colleagues, and physicians' behaviors, active listening, history taking, and participating in nursing and medical rounds²⁵. Female students showed higher creativity scores than boys in the self-centered group ($p < 0/007$). The results of our study were similar to those of Abraham et al²⁶. Girls have a higher creativity score than boys, because of their attention to content details. . The results revealed no correlation among age, Educational status with creativity score of two groups

There was no article that particularly looked at the impact of self-centered study on creativity:

In summary, it can be concluded that a lecture alone is not significantly improved creativity of levels. Also, This study showed that the self-centered learning can increase the creativity score and therefore It can provide opportunities to innovate in future clinical situations and further develop clinical skills. Self-centered learning helps students to strengthen the learning processes. in this study, before and after method was used, because we avoided from confounding variables. But the lack of a control group was one of the limitations of this study. Another limitation was the limited population and not too many of the research units. It is recommended that this study be conducted with the control group and at a wider level.

Conclusions

Self-centered learning significantly raise the creativity students'. Therefore, it should be considered in educational planning and learning strategies to meet all of the educational goals and outcomes. a nurse who integrates creativity and innovations will find that it works as self-empowerment. And in fact with empowerment, the nurse would serve the best quality of care possible, and improve the outcomes.

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