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Nursing

EFFECTIVENESS OF GAME LEARNING VS LECTURE METHOD ON KNOWLEDGE REGARDING COVID-19 AMONG B.SC NURSING STUDENTS IN SELECTED NURSING COLLEGES AT PUDUCHERRY

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ABSTRACT **Introduction:** Education gives a replacement structure to man. It is a process of shaping the standard of living that strengthens the standard of society and the universe as a whole. **Aim:** The aim of the study is to compare the effectiveness of Game learning Vs Lecture method on knowledge regarding COVID-19 among B.Sc Nursing students. **Methodology:** Quantitative Research Approach with Quasi Experimental (one group pre-test and post-test) research design was adopted for the study. 80 samples were selected by each 40 in group-I from College of Nursing-East Coast Institute of Medical Sciences and group-II from RAAK Nursing College, Puducherry, using Simple Random Sampling Technique. Data was collected by Self-Structured Knowledge Questionnaire, Group-I received Game learning and Group-II received Lecture method. **Results:** The result reveals that, in group-I, the pre and post-test mean values were 16.18 and 26.88 and standard deviation values were 3.672 and 2.053 respectively. The obtained t-test value was -17.572. In group-II, the pre and post-test mean values were 14.08 and 18.58 and standard deviation values were 3.598 and 3.644 respectively. The obtained t-test value was -9.29. While comparing the mean score of Game learning of 10.7 with SD 3.851 with mean score of Lecture method of 4.5 with SD 3.063. The calculated t-test value was 7.968. Hence it is interpreted that there was a variation in the level of knowledge in group-I and group-II. It shows that the game learning was more effective than the lecture method. **Conclusion:** The present study concludes that Game learning is more effective in teaching compared to the usual lecture method on student's knowledge and it can be considered as a new approach for promoting the various learning skills among the students.

KEYWORDS : Game leaning, Lecture method, COVID-19, Nursing students.

INTRODUCTION

Education can be a process of receiving or giving systematic instruction, especially in a college or university. Learning through game is one of the oldest and most useful pedagogical ideas used throughout human history. A game is an educational method that aims to provide an engaging and self-reinforcing technique used to engage and educate players.

According to the National Institute of Education (2013)
Games are being used in classrooms not just because they are fun. If designed well, they can encourage deeper and broader learning in our students. Games are used to help people learn for three main reasons: motivation, content mastery, and higher-level thinking and social skills.

Lecturing has been the core teaching strategy in university education in all disciplines for centuries. Teaching and learning are the two sides of the same coin. The most important, accepted criterion for measuring good teaching is the extent of student's learning. There are consistently high correlations between student's ratings of "amount learned" within the course and also their overall ratings of teachers and courses. Those who studied more gave their teachers higher ratings (Cohen 1981, Theall and Franklin 2001).

In 2020, ICMR states that Covid-19 would be registered as a "root cause of death" by causing pneumonia, acute respiratory distress syndrome, cardiac injury, disseminated intravascular coagulation among the population. It conducted almost 2.31 crore tests within twenty one days and as per records just about 15 lakhs was achieved by the end of September, 2020.

Nurses are the primary healthcare professionals involved with patients and they are crucial supply of exposure to infected cases in healthcare settings. Thus, they were expected to be at high risk of infection. But at the side of them, student nurses are also posted in various health care facilities and in community settings, as a work force to combat COVID-19. Hence, they're conjointly expected to be at high risk to urge infected with the virus without adequate knowledge and poor perception about COVID-19. In many states of India, due to a shortage of workforce, student nurses are being utilized for various tasks, like in

a community survey or as a help in COVID-19 units. Therefore, the probability of acquiring the infection is higher among them.

However, there's no standard course on COVID-19. Furthermost, to our knowledge, the literature concerning the right teaching strategies for instructing students concerning COVID-19 is extremely limited. It is, therefore, of paramount importance that student nurses involved directly or indirectly caring for COVID-19 patients ought to equip with adequate knowledge about all aspects of the diseases.

Statement Of The Problem
A comparative study to evaluate the effectiveness of Game learning Vs Lecture method on knowledge regarding COVID-19 among B.Sc. Nursing students in selected Nursing colleges at Puducherry.

OBJECTIVES
- To assess the level of knowledge on COVID-19 among B.Sc. Nursing students.
- To evaluate the effectiveness of Game learning and Lecture method on knowledge regarding COVID-19 among B.Sc. Nursing students.
- To compare the effectiveness of Game learning Vs Lecture method on knowledge regarding COVID-19 among B.Sc. Nursing students.
- To associate the level of knowledge regarding COVID-19 with selected demographic variables.

MATERIALS AND METHODS
Research approach: Quantitative research approach.

Research design: Quasi Experimental one group pre-test and post-test research design.

Variables of the study:
Independent variable
- Game learning Vs Lecture Method.

Dependent variable
- Knowledge regarding COVID – 19.

Extraneous variables
- Individual difference in subjects influences of social media and

peer group about COVID-19.

Setting of the study:
College of Nursing, East Coast Institute of Medical Sciences, Moolakulam and RAAK Nursing College, Villianur, Puducherry.

Population of the study:
I-year B.Sc. Nursing students studying in College of Nursing, East Coast Institute of Medical Sciences, Moolakulam and RAAK Nursing College, Villianur, Puducherry.

Sample and Sampling technique:
The sample consists of the I-year B.Sc. Nursing students those who are fulfilling the inclusion criteria.

Simple Random Sampling Technique by lottery method was used to select the sample.

Sample size:
80 samples (n=80) from I-year B.Sc. Nursing students. 40 students in each group. (Group-I: Game learning, Group-II: Lecture method).

Description Of The Tool
Section I –
The demographic variables includes student profile such as Name, Age, Gender, Religion, Domicile, Type of family, Family monthly income and the parents profile such as Age, Educational Qualification and Occupation.

Section II-
Self-Structured Knowledge Questionnaire was used. It consisted of 30 items related to the level of knowledge, it includes definition, mode of transmission, risk factors, clinical features, diagnostic evaluation, management, preventive measures, and complication of COVID-19. Right answer was scored as 1 and wrong answer was scored as 0.

Scoring Interpretation
Data Collection Procedure
The data collection was done from 04-07-2022 to 29-07-2022. 80 samples were selected, each group consists of 40 samples in group-I from College of Nursing, East Coast Institute of Medical Sciences and group-II from RAAK Nursing College, were selected based on the inclusion criteria. The participants were selected by simple random sampling technique using lottery method. Purpose of the study was explained and obtained informed consent from each participant.

Pre-test
The data collection was done on 04.07.2022 and 05.07.2022. For first two days pre-test were assessed for both the groups by using Self-Structured Knowledge Questionnaire on COVID-19 among I-year B.Sc. Nursing students.

Intervention
In group-I the 40 samples were subdivided into 4 groups (i.e., 10 samples in each group). The researcher conducted the Game learning by 4 Game learning rounds namely memory, video, paper ball and visual based Game learning for 2 hours.

In group-II the selected 40 samples were provided Lecture method for the period of 1 hour regarding COVID-19.

Post-test
The post-test was conducted after three weeks of intervention on 28.07.2022 and 29.07.2022 by using the same Self-Structured Knowledge Questionnaire.

RESULTS AND DISCUSSION:
1. Findings related to socio demographic variables
Majority of the subjects 35(87.5) in group-I, 21(52.5%) in group-II, were in the age group of 18 years. 33(82.5%) in group- I, 29 (72.5%) in group-II, were female. 38(95%) in group-I, 33(82.5%) in group-II, were belongs to Hindu. 22(55%) in group-I were in rural area, 27(67.5%) in group-II were in urban area. 35(87.5%) in group-I, 31(77.5%) in group-II, were nuclear family. 32(80%) in group-I, 28(70%) in group-II were earns about Rs.5000 – 20,000. 15(37.5%) in group-I, 12(30%) in group-II, of fathers age were of 45-49 years. 15(37.5%) in group-I and group-II, fathers had primary education. 17(42.5%) in group-I fathers were self-employer, 19(47.5%) in group-II fathers were private employer. 16(40%) in group-I, of mothers were

belongs to the age group of 35-39 years, 19(47.5%) in group-II, of mother were belongs to the age group of 40-44 years. 19(47.5%) in group-I and group-II of mothers had primary education. 23(57.5%) in group-I and group-II of mothers were home maker.
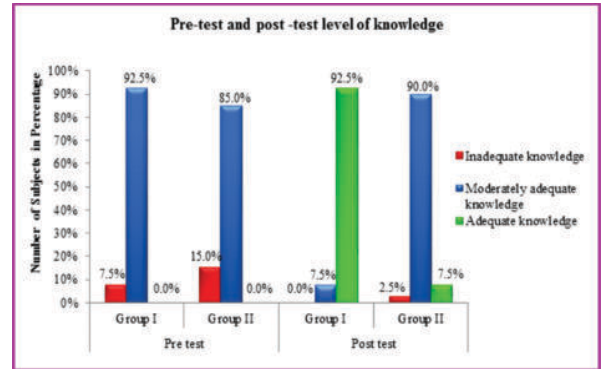

Figure 1: Percentage distribution of level of knowledge regarding COVID-19 among B.Sc. Nursing students during Pre-test & Post-test.

Figure 1 revealed that in pre-test out of 40 samples in group-I, 3(7.5%) had inadequate knowledge, 37(92.5%) had moderate knowledge and none of them had adequate knowledge. In post-test out of 40 samples in group-I, none of them had inadequate knowledge, 3(7.5%) had moderate knowledge and 37(92.5%) had adequate knowledge. In pre-test out of 40 samples in group-II 6(15%) had inadequate knowledge, 34(85%) had moderate knowledge and none of them had adequate knowledge. In post-test out of 40 samples in group-II, 1(2.5%) had inadequate knowledge, 36(90%) had moderate knowledge and 3(7.5%) had adequate knowledge. It showed that Game learning was effective than the Lecture method of the level of knowledge.

Table 1: Effectiveness of Game learning and Lecture method on knowledge regarding COVID-19 among B.Sc Nursing students (N=80)

Group	Pre-test			Post-test			Paired 't' test	p-value
	Mean	SD	Std. error Mean	Mean	SD	Std. error Mean		
*Group-I	16.18	3.672	0.581	26.88	2.053	0.325	-17.572	<0.001*
*Group-II	14.08	3.598	0.569	18.58	3.644	0.576	-9.29	<0.001*

*Group-I: Game learning, Group-II: Lecture method

*Highly statistically significant at p<0.001

The above table 1 states that in group-I, the pre and post-test mean values were 16.18 and 26.88 respectively and standard deviation values were 3.672 and 2.053 respectively. The obtained 't' test value was -17.572. In group-II, the pre and post-test mean values were 14.08 and 18.58 respectively and standard deviation values were 3.598 and 3.644 respectively. The obtained 't' test value was -9.29. It was statistically high significant at p<0.001 level. There was a significant difference between pre-test and post-test values of the level of knowledge in group-I and group-II. This result shows that there was a significant difference in the level of knowledge regarding COVID-19 among B.Sc. Nursing students.

Table 2: Comparison of Game learning Vs Lecture method on knowledge regarding COVID-19 among B.Sc Nursing students (N=80)

Delta (diff. between Pre and Post-test)	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	Independent 't'-test	'p' -value
Game learning	40	10.7	3.851	0.609	6.2	7.968	<0.001
Lecture method	40	4.5	3.063	0.484			

The table 2 depicts the mean and SD of Game learning was 10.7+3.851 compared with mean and SD of Lecture method was 4.5+3.063 (t-test = 7.968) and it showed statistically significant difference at the level of p<0.001. Hence, it was found that the Game learning was more effective compared with the Lecture method.

Association of the level of knowledge regarding COVID-19 with selected demographic variables.

The result shows that there was significant association of the pre-test level of knowledge with the demographic variables of Family monthly income with 'p'-value 0.0172, while there is no significant association with other demographic variables.

CONCLUSION:

Education play a vital role in everyone's day to day life. There is no question that this new generation of students is challenging the traditional teaching paradigm to attain their higher education. Due to technological advancement to fulfill the current generation need in nursing education, it is important to devise new ways of learning that align their learning style and expectations. The present study concluded that Game learning was more effective in teaching compared to the usual lecture method to improve knowledge among Nursing students and it can be considered as a new approach for promoting the various learning skills among the Nursing students.

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