



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2023; 9(1): 152-154
www.allresearchjournal.com
Received: 13-11-2022
Accepted: 16-12-2022

Tailang Dumi
Department of Medical
Surgical Nursing
(neuroscience), Guwahati,
Assam, India

Mayengbam Benita Devi
M.Sc. Department of Medical
Surgical Nursing Neuroscience,
Rahman Institute of Nursing
and Paramedical Sciences,
Guwahati, Assam, India

Lipika Hazarika
Department of Community
Health Nursing, Rahman
Institute of Nursing and
Paramedical Sciences,
Guwahati, Assam, India

Corresponding Author:
Tailang Dumi
Department of Medical
Surgical Nursing
(neuroscience), Guwahati,
Assam, India

Effectiveness of flipped learning model as a learning strategy among undergraduate nursing students: Quasi experimental research study

Tailang Dumi, Mayengbam Benita Devi and Lipika Hazarika

Abstract

Background: The flipped classroom (FC) is a pedagogical approach that means that the activities that have traditionally taken place within the classroom are carried out outside the classroom. Fundamentally it implies the way in which the student studies the subject.

Aim: The study aim end to assess the effectiveness of flip paid learning model in terms of improvement in the knowledge of 2nd year BSc. Nursing student on Myocardial Infarction (MI).

Materials and Methods: A Quantitative study with non-randomized control group design which consisted of 56 undergraduate nursing students of Rahman Institute of Nursing and Paramedical Sciences, Guwahati. A demographic variable and structured knowledge questionnaire on Myocardial Infarction was developed. Statistical methods used for analysis were descriptive and inferential statistics.

Result: The findings of the study revealed that majority (75%) of the undergraduate nursing students belonged to age group of <20 years, (66.1%) were female. (92.9%) were hosteller, (100%) did not have prior experience to flipped learning model, (100%) did not have previous knowledge on Myocardial Infarction, (92.9%) had poor knowledge before administration of flip pad learning model, (50%) had average knowledge after the administration off lipped learning model.

Conclusion: The results have shown that there is effectiveness of flipped learning model as a learning strategy among the undergraduate nursing students.

Keywords: Effectiveness, flipped learning model, learning strategy, undergraduate nursing students

Introduction

Many of the educational practices that are carried out today are not applicable to the daily contexts in which students perform outside the school environment. A possible solution to this situation is implementing new pedagogies to reverse the actions and times that, in a traditional way, take place in the classroom. In this way, flipped learning has recently acquired a leading role as an alternative that was developed due to the inclusion of information and communication technologies (ICT) in the field of education, to give greater prominence to students during their learning processes.

Methodology

The objective of the study were to assess the knowledge on MI of 2nd year BSc nursing student in experimental and control group. To determine the effectiveness of flipped learning model in terms of improvement in the knowledge of 2nd year BSc nursing student on MI. The research approach chosen for the study was a quantitative non-randomized control group research design. The study was conducted among undergraduate nursing students in Rahman Institute of Nursing and Paramedical Sciences. Formal permission was obtained from each participant. Every participant was assured of his/her privacy & confidentiality.

Sample Size

The sample size was 56 undergraduate nursing students in Rahman Institute of Nursing and Paramedical Sciences.

Sampling Technique

Non-probability convenience sampling technique.

Tool for data collection

The tool used in the study were:-

Section- A: Demographic performa

Section- B: Structured knowledge questionnaire on MI

Section- C: Recorded voice-over PPT on MI as a learning tool

Method of data collection

A demographic variables and structured knowledge questionnaire on Myocardial Infarction were used for the collection of data in the study.

Procedure for data collection

Formal permission was obtained from the concerned authorities of Rahman Institute of Nursing and Paramedical Sciences, Guwahati from 28/2/22 to 8/3/22. The investigator

had given a self- introduction, explained the purpose of the study, and ascertained the willingness of the subjects to participate in the study. After which pretest was done on first day for both the groups for about 30 minutes to complete the questionnaire and then prerecorded voice over Power Point on the topic Myocardial Infarction (MI) was given to experimental group after which discussion was carried out and traditional classroom method was used for control group. On the 8th day post-test was conducted for both the groups using the same questionnaire.

Data analysis

The data were analyzed and interpreted in accordance with the objectives of the study by using descriptive and inferential statistical methods. Frequency and percentage distribution methods were used for the analysis of demographic variables in the study.

Results

Table 1: Frequency and Percentage Distribution of undergraduate nursing students in regard to Demographic Variables n=56

Sl. No.	Demographic Variables	Sub-Group	Frequency	Percentage
1	Age in year	20 years & below	42	75.0%
		Above 20 years	14	25.0%
2	Gender	Male	19	33.9%
		Female	37	66.1%
3	Prior experience of flipped classroom	Yes	0	0%
		No	56	100%
4	Previous knowledge on myocardial infarction	Yes	0	0%
		No	56	100%

Table 2: Frequency and Percentage Distribution of Knowledge before and after the implementation of flipped learning model on myocardial infarction among the experimental group. n=28

Level of knowledge	Category as per Score	Respondents knowledge			
		PRE – TEST		POST – TEST	
		Frequency	Percentage	Frequency	Percentage
POOR	0 – 12	26	92.9%	1	3.6
AVERAGE	13-18	2	7.1%	14	50%
GOOD	ABOVE 18	0	0%	13	46.4%

Table 3: Calculation of paired ‘t’-test for the comparison of knowledge of control group. n = 28

Knowledge	Mean	sd	Mean difference	df	‘t’ - value	p – value
Pre- test (control group)	9.60	2.46	-3.71	27	5.44	< .001**
Post- test (control group)	13.32	3.88				

(**-. Significant at $p < 0.05$; tabulated ‘t’ – value = 2.05)

Table 4: Calculation of paired ‘t’-test for the comparison of pre-test & post-test knowledge of experimental group before and after the implementation of flipped learning model. n = 28

Knowledge	Mean	sd	Mean difference	df	‘t’ - value	p - value
Pre-test (experimental group)	9.04	2.44	-7.96	27	15.93	< .001**
Post-test (experimental group)	17	2.71				

(**-.Significant at $p < 0.05$; tabulated ‘t’ – value = 2.05)

Table 5: Calculation of independent ‘t’-test for the comparison of pre-test knowledge of control and experimental group n=56

Knowledge	Mean	sd	Mean difference	df	‘t’ - value	p – value
Post-test (control group)	13.32	3.88	-3.67	54	4.108	< .001**
Post-test (experimental group)	17	2.70				

(**-.Significant at $p < 0.05$; tabulated ‘t’ – value = 2.005)

Discussion

The study revealed that flipped learning model was effective which showed that the mean knowledge score of undergraduate nursing students (experimental group) was

significantly higher than the mean of the knowledge score before the implementation of flipped learning model (t=15.93, p=0.001)

Similar findings were reported by Blazquez B O, Masluk B, Gascon S, Diaz RF, Aguilar-Latorre A *et al.* (2019) ^[1] to evaluate the effectiveness of a flipped classroom in the academic performance of students of the social work degree, where the Flip Teaching group had higher percentage of students receiving merit and outstanding scores (34.5%) and traditional lecture (6.9%) respectively.

Similar findings were reported by Angadi NB, Kavi A, Shetty K and Hashilkar NK (2019) ^[2] to assess the effectiveness of flipped class as a teaching-learning method, where the mean posttest scores of FC and conventional group were compared, and the difference was statistically significant ($p < 0.0001$).

Conclusion

From the findings of the present study the following conclusions were drawn-

- The mean knowledge score after implementation of flipped learning model was significantly higher than the knowledge score before implementation of flipped learning model.
- The mean knowledge score of experimental group was significantly higher than the knowledge score of control group

References

1. Oliván Blázquez B, Masluk B, Gascon S, Fueyo Díaz R, Aguilar-Latorre A, Artola Magallón I, Magallón Botaya R. The use of flipped classroom as an active learning approach improves academic performance in social work: A randomized trial in a university. *PloS one*. 2019 Apr 4;14(4):e0214623.
2. Angadi NB, Kavi A, Shetty K, Hashilkar NK. Effectiveness of flipped classroom as a teaching-learning method among undergraduate medical students—An interventional study. *Journal of education and health promotion*; c2019. p. 8.
3. Pozo Sanchez S, Lopez Belmonte J, Moreno Guerrero AJ, Lopez Nunez JA. Impact of educational stage in the application of flipped learning: A contrasting analysis with traditional teaching. *Sustainability*. 2019 Oct 27;11(21):5968.