Jurnal Ilmiah Ilmu Terapan Universitas Jambi p-ISSN: 2580-2240
Vol. 7 No. 1. June 2023, pp. 1-4, DOI. 10.22437/jiituj.v7i1.18280 e-ISSN: 2580-2259

MODULE AND AUDIOVISUAL PACKAGE INTERVENTIONS IN INCREASING STUDENTS' KNOWLEDGE AND HARD SKILL IN MATERNITY NURSING COURSES

Muthia Mutmainnah[1,*], Meinarisa[2], Sri Mulyani[3]
[1,2,3] Faculty of Medicine and Health Sciences, Universitas Jambi, Jambi, Indonesia
Corresponding author email: muthia_mutmainnah@unja.ac.id

Article Info
Recieved: 24 May 2023
Revised: 5 June 2023
Accepted: 20 June 2023
OnlineVersion: 30 June 2023

Abstract :
COVID-19 has changed the order of education in Indonesia. There is a big change in learning from formal education in the classroom to learning from home, with an online system. The online education system is certainly not easy. In addition to the personal discipline to study independently, there are facilities and resources that must be provided. Laboratory activities that hone students' abilities in developing skills for patients were forced to turn into audiovisual learning. In maternity nursing learning there are practices carried out in laboratories that develop students' hard skills and knowledge The design of this research is pretest and posttest without control group. The implementation of the audiovisual learning and module intervention was given in 4 sessions consisting of pregnancy, childbirth, newborns and the postpartum period. The questionnaire used in this study was a knowledge questionnaire and hard skill assessment on students using zoom. Number of respondents are 63 respondents. The results of the study show that there is an effect of audiovisual learning on students' knowledge p=0,001 and soft skill p=0,001. This study shows an increase in the score of 80% of the number of respondents. This research recommends giving audiovisual learning to improve knowledge laboratory skills in maternity nursing.

Keywords: Audiovisual; Module; Hard Skills; Knowledge; Maternity

INTRODUCTION

The Covid-19 pandemic has changed the order of the education process in Indonesia. These changes do not only occur in education at the elementary level. But also in Higher education (Versteeg & Kappe, 2021). The Indonesian government also banned face-to-face learning and suggested conducting distance learning (PJJ) (Kemendikbud Dikti Circular Letter No. 1 of 2020).

PJJ itself is a challenge in the implementation of Education. Learning is carried out by arranging lecture meetings and setting scenarios (Firman & Rahayu, 2020). Learning nursing in blocks can consist of tutorials, general learning, laboratory practicum, and field practice. Nursing learning requires laboratory practice before these actions can be performed on patients. Laboratory learning allows students to make clinical decisions and improve skills and abilities in action during patient care. Remote communication is not limited to learning but can also be applied to nursing interventions, including smoking habits (Eka Nur Eni* Erna Erawati Angga Sugiarto Suyanta, 2020).

Maternity Nursing 1 covers studies on women or couples of childbearing age, normal pregnancy, delivery, newborn and postpartum. The learning was previously carried out directly in the laboratory. However, now this activity can not be done. So it is necessary to modify learning so that students can still receive learning information (Johnsen et al., 2016).

Audiovisual methods are also known in learning, which is growing rapidly. Coupled with the emergence of digital platforms that provide video-sharing services that can share videos, watch, download, and provide feedback through responses to the media. Then the media has easy access to any type of gadget, including cell phones. Using this media also makes it easier for students in the health sector (Egle, Smeenge, Kassem, & Mittal, 2015; Ang et al., 2017). The importance of audiovisual media during a pandemic certainly helps in delivering lecture material. Lecturers can deliver lecture material and can practice directly to students the action procedures taken. The purpose of providing this information is to increase student knowledge and skills.

This study aimed to assess the knowledge and hard skills of students at the laboratory level after being given audiovisual learning and learning modules in maternity nursing.

RESEARCH METHOD

The research design is a pre-experimental, using a pre-test and post-test without a control group, which is a design that treats one group without a comparison group. This research was conducted in September-November 2021.

This research was conducted on respondents who took a class of maternity nursing courses totaling 63 respondents at the University of Jambi with total sampling. The treatment given was the provision of audiovisual media and maternity learning modules. During this research, respondents will be given 4 learning sessions related to maternity nursing, namely those relating to pregnancy examinations, childbirth, newborn examinations and postpartum examinations. The effectiveness of the treatment was assessed by comparing the post-test scores with the pre-test. The questionnaire used is a knowledge questionnaire and hard skill assessment. Data analysis using wicoxon test.

RESULTS AND DISCUSSION

The data in this study came from primary data in the form of questionnaires submitted to research respondents using pre and post-tests. Respondents were all students who took the Maternity Nursing 1 class at the Nursing Study Program, Jambi University, Odd Semester 2021/2022. The number of respondents is 63 respondents. Complete charging before and after the test. The questionnaire consists of two parts, namely Knowledge and Action Rubik's Laboratory. Each questionnaire consists of four sessions: pregnancy, childbirth, newborn, and postpartum women. The questionnaire has been tested for validity and reliability.

Based on the questionnaires that have been distributed and filled out by the respondents, the respondent's data is obtained, which can be seen in the following table:

Table 1. Respondent demographics

		Total	Percentage (%)
Genre	Man	4	7
	Women	59	93
Age	18	28	45
	19	35	55
City	Jambi City	29	44
	Outside Jambi	34	56

From table 1 above it can be seen that the sex of the largest respondents was female 59 (93%) and only a few were male, 4 (7%). Respondent's age is 19 years 35 (55%) and age 18 28 (45%). While the origin of the city from outside the city of Jambi was as much as 34 (56%) and from within the city of Jambi as many as 29 (44%).

Table 2. Description of the respondent's data

Variable	Mean	IK 95%	Median	Min	Max
Knowledge	12.96	13.38-13.6	17	17	20
Hard Skills	12.96	12.38-13.59	15	15	20

From the table above, it is known that the mean value of student knowledge before the intervention of audiovisual learning and learning modules is 12.96 and knowledge after the intervention is the median value of 17.00 because the data distribution is not normal. Likewise with the hard skills of the respondents, the average before was 12.96 and after the median value was 15.00.

Table 3. Knowledge ariables

Variable	Median	Min	Max	P-Score
Prior knowledge	13	7	19	0.001
After knowledge	17	17	20	

The results of the Wilcoxon test of the knowledge variable were that 7 subject knowledge decreased, 5 remained and 51 increased. Then it is known that the p value <0.05, statistically there is a significant difference in knowledge between before the audiovisual learning intervention and after the intervention.

Table 4. Variable Hard Skills

Variable	Median	Min	Max	P-Score
Prior Hard Skill	13	7	19	0.001
After Hard Skill	15	15	20	

The Wilcoxon test results for the hard skill variable were 8 decreased, 8 remained and 47 increased. Then it is known that the p value <0.05, statistically there is a significant difference in hard skills between before the audiovisual learning intervention and the learning module and after the intervention.

The results of this study indicate an effect of providing education using the audiovisual method on knowledge indicated by Ho being rejected. This study showed an increase in knowledge of 56.224 the average value of knowledge given audiovisual education. This happened because the education provided was by direct demonstration method with a phantom and accompanied by detailed explanations in the video.

This research is in line with research by Pujol (2019), which states that learning material will be more improved and easier to understand if it is accompanied by moving pictures and media compared to traditional textbooks. A study by Arain et al (2019) explained that interventions using audiovisuals would improve students' understanding of the material in the field of Health, improve students' ability to make decisions in a case, and students' self-ability in field practice. However, providing audiovisual learning does not improve students' abilities and scores in the OSCE exam.

During the current Covid-19 pandemic, of course innovation is needed in delivering lecture material. Especially in the field of nursing that performs actions on patients. With audiovisual media and learning modules that are systematically recorded, students can repeat learning materials and practicums. These repeated activities provide better and longer learning access for students to understand lecture material. This will not be obtained with conventional learning methods. What happened at one time and cannot be repeated (Swords et al, 2020).

Advances in technology in learning allow students to access learning better. Technology assistance, such as audiovisual helping during a pandemic, keeps laboratory lectures running. This also shows that students are less interested in traditional learning (Arain et al., 2019). The development of audiovisual learning helps students' clinical skills seen from the results of statistical tests. In this case, students certainly get more experience than just reading practicum guides (Johnsen et al., 2016).

Audiovisual learning also helps students understand the relevant context, namely students' knowledge, and hard skills. Most importantly, students get a good picture of maternity nursing. This is not possible in traditional classes to be able to interact with peers if only discussions are held via Zoom (Ang et al., 2017). Learning activities using audiovisuals also allow students to enjoy learning with various senses. If initially there was no video available, so they only saw pictures, this time students would experience more (Versteeg & Kappe, 2021).

Supporting better learning, in the intervention the researcher divided the intervention into 4 sessions, namely sessions in maternity nursing. The first session contains audiovisual information about

the pregnancy process and its examination, the second session contains the delivery process and pain control. The third session contains knowledge and examination of newborns and the last session contains examination and knowledge of postpartum mothers.

In this case, audiovisuals will further enhance the experience, encouraging students to spend more time watching and practicing at the laboratory level. Of course, there are still shortcomings in this study, and we encourage the use of a control group in this study. So that the data is more objective. It is also strengthened by providing modules that can be read and juxtaposed when receiving audiovisual learning.

Video will generally encourage students as students to interact more during a pandemic when students are unable to access campus laboratories. The availability of this audiovisual also encourages students to be able to develop according to their own pace of learning, where the media can be played repeatedly. In addition, students also feel the interaction with tutors. So it is understood that learning will be better if it is combined traditional learning and audiovisual learning in the realm of student knowledge and hard skills.

CONCLUSION

The results of the study revealed that there was an increase in knowledge and abilities in students' hard skills. The learning experience using audiovisual and learning modes certainly helps students in making clinical decisions at the laboratory level and students' knowledge, especially in maternity learning 1. Utilization of audiovisual media and learning modules can be used in distance learning. Where during the current pandemic, PJJ is carried out more often.

ACKNOWLEDGMENTS

We would like to thank all those who have assisted in the research, as well as financial assistance from the University of Jambi

REFERENCES

Ang, E., Nabihah, S., Abu, B., Thong, M., & Choong, T. (2017). Using video in medical education: What it takes to succeed. *The Asia Pacific Scholar*, *2*(3), 15–21. https://doi.org/10.29060/taps.2017-2-3/oa1034

Arain, S. A., Afsar, N. A., Rohra, D. K., & Zafar, M. (2019). Learning clinical skills through audiovisual aids embedded in electronic-PBL sessions in undergraduate medical curriculum: perception and performance. *Advances in Physiology Education*, *43*(3), 378–382. https://doi.org/10.1152/advan.00075.2019

Eni, E. K., Erawati, E., Sugiarto, A., Suyanta, S. (2020). Asuhan Keperawatan Pada Klien Skizofrenia Dengan Fokus Studi Harga Diri Rendah Di RSJ. PROF. dr. SOEROJO MAGELANG. *Jurnal Media Keperawatan: Politeknik Kesehatan Makassar*, *11*(2), 2087–0035

Johnsen, H. M., Fossum, M., Vivekananda-Schmidt, P., Fruhling, A., & Slettebø, Å. (2016). Teaching clinical reasoning and decision-making skills to nursing students: Design, development, and usability evaluation of a serious game. *International Journal of Medical Informatics*, *94*, 39–48. https://doi.org/10.1016/j.ijmedinf.2016.06.014

Pujol J, Blanco-Hinojo L, Martínez-Vilavella G, Canu-Martín L, Pujol A, Pérez-Sola V, Deus J. Brain activity during traditional textbook and audiovisual-3D learning. Brain Behav. 2019 Oct;9(10):e01427. doi: 10.1002/brb3.1427.

Swords C, Bergman L, Wilson-Jeffers R, Randall D, Morris LL, Brenner MJ, Arora A. Multidisciplinary Tracheostomy Quality Improvement in the COVID-19 Pandemic: Building a Global Learning Community. *Ann Otol Rhinol Laryngol.* *130*(3):262-272. doi: 10.1177/0003489420941542.

Versteeg, M., & Kappe, R. (2021). Resilience and Higher Education Support as Protective Factors for Student Academic Stress and Depression During Covid-19 in the Netherlands. *Frontiers in Public Health*, *9*(October), 1–14. https://doi.org/10.3389/fpubh.2021.737223