The Evaluation Of Online Learning Modules To Increase The Capacity Of Nurses And Midwives In Promoting Preconception Health In Primary Health Care Services At Tiara Kasih Sejati Hospital Pematangsiantar

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Abstract.
This study aims to find out how to develop an online learning module to increase the capacity of nurses and midwives in promoting preconception health in primary health care services at Tiara Kasih Sejati Hospital Pematangsiantar. This type of research is classified into descriptive research with a quantitative approach. The sample of this study amounted to 93 samples consisting of midwives and nurses. Data was collected by using counseling methods and giving questionnaires. Data analysis using univariate. The results showed the difference in the increase in respondents' knowledge of 4.34 so that the average score of respondents' knowledge before and before being given the online learning module increased from 9.52 to 13.86. The benefit of the module is to increase the perception of midwives and nurses in improving health preconceptions in primary health care settings by 75.3% of midwives and pediatric nurses increasing the promotion of health preconceptions in primary health care settings. The ability level of midwives and nurses in accessing online learning modules regarding preconception is 55.9% the best and 44.1% not good. The assessment of the quality of the online learning module given to midwives and nurses, midwives and nurses who rated it good was 77.4% and those who rated it bad were 22.6%. The nutritional needs needed during the preconception period are macronutrients and micronutrients.

Keywords: Learning Module, Preconception, Health Promotion

I. INTRODUCTION

The health condition of the prospective mother in the early stages of pregnancy will affect the health of the pregnancy as well as the health status of the prospective baby who is still in the womb, so that during the preconception period it is recommended that the mother-to-be can maintain a healthy lifestyle [1]. Preconception is pre-pregnancy care that ranges from three months to a year before conception, but ideally should include the time when the ovum and sperm are mature, which is about 100 days before conception for a mother.A Danish cross-sectional study with 258 pregnant women found that women with planned pregnancies were more likely to take folic acid (57% versus 2%) and reported consuming less alcohol (20% versus 31%). This study found significant differences in preconception health behaviors between planned and unplanned pregnancies [2]. Knowledge of nurses and midwives about preconception is very important for people who are conducting preconception programs. Based on the results of a pre-survey conducted by researchers on several nurses and midwives at Tiara Kasih Sejati Hospital Pematangsiantar, it can be seen that there is still a lack of knowledge of some nurses and the field of preconception which can certainly have an impact on patient visits who want to know about preconception at the hospital.

The module is a form of teaching material that is packaged in a complete and systematic way, in which it contains a set of learning experiences that are planned and designed to help students master specific learning objectives. The module is one of the learning media in the form of print which is packaged in a systematic, interesting, and clear way so that it is easy for students to learn independently. With good knowledge of nurses and midwives about the preconception program is one of the health efforts provided by nurses and midwives [3]. Nurse and midwife services regarding preconception are provided to women throughout their reproductive period which includes pre-pregnancy, pregnancy, childbirth, and postpartum periods; newborn baby; and children under five years old (toddlers) [4].In this study, one of the solutions that will be carried out by researchers is by providing several modules or materials about preconception to nurses

and midwives that can be studied, so that the knowledge of nurses and midwives about preconception can be better in the future, and can increase the number of visits and promotions. nurses and midwives themselves about the importance of preconception knowledge for women who run pregnancy programs. From the description of the background above, the formulation of the problem in this study is how to evaluate online learning modules to increase the capacity of nurses and midwives in promoting preconception health in the primary health care setting at Tiara Kasih Sejati Hospital Pematangsiantar. The research concept framework in this study can be seen in Figure 1.1 below.
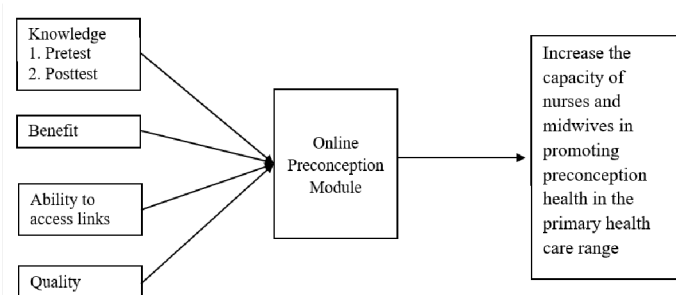

Fig 1.Research Concept Framework

II.   METHODS

The type of research in this study is classified into descriptive research with a quantitative approach. Descriptive research is intended to describe or describe existing phenomena, both natural phenomena or human engineering [5]. Quantitative research methods, as proposed are research methods used to examine certain populations or samples, data collection uses research instruments, data analysis is quantitative/statistical. Based on this theory, quantitative descriptive research, namely data obtained from the population or research sample, is analyzed according to the statistical methods used to describe existing phenomena.This research was conducted at Tiara Kasih Sejati Hospital Pematangsiantar, Street Menambing No.4, Timbang Galung, Kec. Siantar Barat, Kota Pematangsiantar.

Primary data collection is done by conducting a direct survey to the object of research. The purpose of this field research is to obtain accurate data. The data obtained by means of research include: observation, pre-test and post-test, questionnaires, documentation. Secondary data is obtained from a second source or secondary sources to support primary dataThe population in this study were nurses and midwives at Tiara Kasih Sejati Hospital Pematangsiantar. The population in this study was 57 for nurses and 36 for midwives. In this study, total sampling used total sampling. Total sampling is a sampling technique when all members of the population are used as samples. The sample size that will be used in this study is 93 respondents. The variables in the study consisted of knowledge, benefits, ability to access links, and module quality.

Table 1. Definition of Operational Variables

Variabel	Definition	Measure	Measuring instrument	Measurement Results	Measuring Scale
Knowledge level	The respondent's ability to answer questions about things that are known about preconception	Respondents Fill out a question sheet consisting of 20 validated questions about preconception knowledge	Questionnaire (20 Questions)	Good/high: if the total score of answers > 50% Poor: if the total score of answers < 50%	Ordinal
Benefit	Benefits of online learning modules provided to midwives and nurses in promoting preconception health in primary health care settings	espondents filled out a question sheet consisting of 20 validated questions about the benefits of the module in promoting preconception health in primary health care settings.	Questionnaire (20 Questions)	Good/high: if the total score of answers > 50% Poor: if the total score of answers < 50%	Ordinal

Variabel	Definition	Measure	Measuring instrument	Measurement Results	Measuring Scale
Ability to Access Module Link	How big is the ability of midwives and nurses in accessing online learning module links about preconception?	Respondents fill out the question sheet consisting of 5 questions which has been validated about the ability of midwives and nurses to access the link	Questionnaire (5 Questions)	Good/high: if the total score of answers > 50%\n\nPoor: if the total score of answers < 50%	Ordinal
Module quality	How is the quality of the modules given to midwives and nurses, both in terms of quality in terms of questions, and also the appearance of the module?	Respondents filled out a question sheet consisting of 5 validated questions about the ability of midwives and nurses to access the link	Questionnaire (5 Questions))	Good/high: if the total score of answers > 50%\n\nPoor: if the total score of answers < 50%	Ordinal

Data analysis in this study used Univariate analysis, which is a data analysis technique on one variable independently, each variable was analyzed without being associated with other variables [5]. The analysis was carried out using the SPSS Version 21 statistical application, after the data was processed, then data analysis was carried out by calculating the proportion of patient characteristics based on the variables used so that an overview of the evaluation of the online learning module to increase the capacity of nurses and midwives in promoting preconception health in primary health care services [5].

III.   RESULT AND DISCUSSION
Preconceptional Knowledge

The following is the result of respondents' knowledge before being given an online learning module and after being given an online learning module regarding preconception.

Table 2. Knowledge Level Before and After Giving Online
Learning Module Regarding Preconception

Knowledge level	Before			After		
	N	%	Mean	N	%	Mean
Good	30	32,3		61	65,6	
Poor	63	67,7	9,52	32	34,4	13,86
Total	93	100		93	100	

Table 2. describes the respondents' knowledge about preconception before being given the online learning module and after being given the online learning module. Before being given an online learning module on preconception, respondents with good knowledge of preconception were 30 respondents with a percentage of 32.3%, and respondents with poor knowledge were 63 respondents with a percentage of 67.7%, with an average value of 9.52.The level of knowledge of respondents about preconception after being given an online learning module is for respondents with good knowledge as many as 61 respondents with a percentage of 65.6%, and respondents with poor knowledge as many as 32 respondents the percentage is 34.4%, with an average value of - an average of 13.86. From these results, it can be seen that there is an increase in respondents' knowledge about preconception before being given an online learning module and after being given an online learning module. The average value increased by 4.34 after being given an online learning module on preconception.

Benefits of Online Learning Modules Based on Perceptions of Midwives and Nurses in Promoting Preconception Health in Primary Health Care Services

With good preconception knowledge, it will improve health promotion in a series of primary health services at Tiara Kasih Sejati Hospital Pematangsiantar. Following are the results of research on the benefits of online learning modules based on perceptions of midwives and nurses in promoting preconception health in the primary health care framework.

Table 3. Benefits of the Module in Improving Preconception Health
Promotion in Primary Health Care Services

Promotion Upgrade	N	%
Increase	70	75,3
Not Increase	23	24,7
Total	93	100

Table 3. explains the benefits of online learning modules in improving preconception health promotion in primary health care, the results show that respondents who answered that they would improve preconception health promotion in primary health care settings after being given an online learning module on preconception were 70 respondents with a percentage of 75. ,3%, and respondents who answered that they would not increase preconception health promotion in the primary health service were 23 respondents with a percentage of 24.7% of the total 93 respondents.

Level of Ability of Midwives and Nurses in Accessing Online Learning Module Links

The following is the result of the ability level of midwives and nurses in accessing the online learning module link.

Table 4. Ability Levels of Midwives and Nurses in Accessing Online Learning Module Links

Ability to Access Link	N	%
Good	52	55,9
Poor	41	44,1
Total	93	100

Table 4. explains the level of ability of midwives and nurses in accessing the online learning module link, the results of the study show that there are 52 respondents who have good skills in accessing the online learning module link, with a percentage of 55.9%, and midwives and nurses. who have poor ability in accessing online learning module links are 41 respondents with a percentage of 44.1%, of the total respondents in this study as many as 93 respondents.

Quality of Preconception Modules Provided to Midwives and Nurses

The following are the answers of nurses and midwives regarding the quality of online learning modules on preconception given to midwives and nurses.

Table 5. Quality of Preconception Modules Provided to Midwives and Nurses

Modul Quality	N	%
Good	72	77,4
Poor	21	22,6
Total	93	100

Table 5. describes the quality of online learning modules on preconception given to midwives and nurses. The results showed that the midwives and nurses who said the quality of the online learning module regarding preconception were good as many as 72 people with a percentage of 77.4%, and 21 people who answered not well with a percentage of 22.6%, of the total respondents in this study as many as 93 people

DISCUSSION

Level of Knowledge of Midwives and Nurses About Preconception Before and After Online Learning Modules are given

From the results of research that has been done, it can be seen that there is an increase in the knowledge of respondents, namely midwives and nurses about preconception before being given the online learning module and after being given the online learning module. The difference in the increase in respondents' knowledge was 4.34 so that the average score of respondents' knowledge before and after being given the online learning module increased from 9.52 to 13.86.Knowledge is the result of knowing, and this occurs after the person has sensed a certain object. Sensing occurs through sight, hearing, smell, taste and touch. Most knowledge is acquired through sight and hearing [6]. Broadly speaking, knowledge is divided into 6 levels, namely, Know, Comprehension, Application, Analysis, Synthesis and Evaluation [7].

Before being given the online learning module, the average score of respondents in understanding questions about preconceptions was only 9.52 out of a total of 20 questions given. After being given the online learning module, there was an increase where the average respondent's answers rose to 13.86 from a

total of 20 questions given. This is in line with the average knowledge category of the sample increasing too good.The results of this study indicate that the role of online learning modules on preconception can significantly increase the knowledge of midwives and nurses. The results of this study are in line with research conducted by Hammarberg & Stocker which stated that the role of preconception nutrition counseling for one week with three repetitions of the material was able to significantly increase the knowledge of the sample [8].

Benefits of Online Learning Modules Based on Perceptions of Midwives and Nurses in Promoting Preconception Health in Primary Health Care Services

The results showed that midwives and nurses who had good knowledge about preconception tended to promote preconception health in primary health care settings. have good knowledge about preconception as many as 70 respondents with a percentage of 75.3%.From these results, it can be seen that the demand for midwives and nurses in promoting preconception health in primary health care is actually high, but with the obstacles faced by respondents, namely knowledge about preconception that is still inadequate, it becomes an excuse for midwives and nurses not to promote preconception health. in the primary health care setting.

The purpose of health promotion according to Subaris, is to empower (empowering), which is to make people not only know and want to, but also be able to behave in a clean and healthy life [9]. Health promotion is a process that aims to enable individuals to increase control over their health and improve their health based on a clear philosophy of self-empowerment [10]. The empowerment process is carried out from, by, for and with the community and in accordance with the local socio-culture. In order to achieve a perfect degree of health, both physically, mentally and socially, the community must be able to recognize and realize their aspirations and needs, and be able to change or cope with their environment (11).

Knowing the Ability Level of Nurses and Midwives in Accessing Online Learning Module Links

The results showed that midwives and nurses who had good ability to access online learning module links were 52 respondents with a percentage of 55.9, and nurses and midwives who had poor skills in accessing online learning module links were 41 respondents with a percentage of 44.1%, of the total respondents in this study as many as 93 respondents. These results indicate that the majority of respondents, namely midwives and nurses, have a good level of ability in accessing the online learning module links provided, which is possible because the network conditions at the location of accessing links are of good quality and also midwives and nurses have good knowledge of current internet access. commonly used as a learning medium. On the other hand, for midwives and nurses who have a poor level of ability to access the online learning module link, it is possible because the internet network when accessing the link does not work perfectly.

Knowing the Quality of Preconception Modules Given to Midwives and Nurses

The results showed that the midwives and nurses who said the quality of the online learning module regarding preconception were good as many as 72 people with a percentage of 77.4%, and 21 people who answered not well with a percentage of 22.6%, of the total respondents in this study as many as 93 people.The module is one form of teaching material that is packaged in a complete and systematic way, in which it contains a set of learning experiences that are planned and designed to help students master specific learning objectives. Based on some of the understandings of the module above, it can be concluded that the module is one of the learning media in the form of print which is packaged in a systematic, interesting, and clear way so that it is easy for students to learn independently. (12)

Nutritional Needs in the Preconception Period for Bride and Groom

About knowledge about nutritional needs during the preconception period for prospective brides before being given an online module, it can be seen that their knowledge is still relatively low. Nutritional needs at this time are different from teenagers, children, or the elderly. Pre-conception perfect nutrition is the key to the birth of a normal and healthy baby [13] During the pre-conception period it is mandatory to meet nutritional needs, adequate nutritional intake and good nutritional status of the mother are important for optimal fetal development [14] Consumption of varied food sources is also very important before conception and during pregnancy [15].

Dieny, et al explained that the nutrients that affect the preconception period are carbohydrates, fat, protein, folic acid, several groups of vitamins such as vitamins A, E, and B12, as well as minerals such as zinc, iron, calcium, and omega-3 [15]. Diet patterns are also recommended in the preconception period consisting of sources of complex carbohydrates, vegetables and fruit, animal protein, and vegetable protein. Foods and drinks that are high in fat are only consumed in limited quantities. This is in line with the recommendations from FIGO in Dieny, et al that FIGO recommends nutrition for pre-conception adolescents, namely: protein, omega-6, omega-3, carbohydrates, folic acid, vitamin 12, vitamin A, vitamin D, vitamin C B6, iodine, iron, calcium, selenium, zinc, choline, biotin, and copper according to the Institute of Medicine recommended dietary allowances and adequate intake guidelines [15].

IV. CONCLUSION

From the results of the research above, the following conclusions can be drawn:

1. The benefits of the module are to increase the perception of midwives and nurses in promoting preconception health in primary health care settings by 75.3% of midwives and pediatric nurses increasing preconception health promotion in primary health care settings.
2. The level of ability of midwives and nurses in accessing online learning module links regarding preconception is good
3. The quality of the online learning modules provided to midwives and nurses is of good quality
4. The nutritional needs needed during the preconception period for the bride-to-be are macronutrients consisting of protein, fat, carbohydrates, fiber and micronutrients consisting of folic acid, vitamin A, vitamin B, vitamin D, choline, iodine and calcium.

Suggestions

1. It is recommended to Tiara Kasih Sejati Hospital Pematangsiantar to always provide training related to preconception, to increase the knowledge of midwives and nurses about preconception
2. For midwives and nurses who already have good knowledge about preconception, it is better to maintain it, and for nurses and midwives who have poor knowledge about preconception, it is better to increase their knowledge about preconception.
3. The modules that have been given to midwives and nurses should be used as reference materials for reading about preconception to increase knowledge about preconception.
4. Midwives and nurses who still have problems accessing the module link can ask for help from friends who have successfully accessed the preconception module link.
5. For women who are in the preconception period, they should meet the nutritional needs for the health of the mother and the baby who will be in the mother's womb

V. ACKNOWLEDGMENTS

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