A MODEL OF STRUCTURED EDUCATION ON ANXIETY OF PRE SECTIO CAESAREA PATIENTS

Nina Zuhana[1], Lia Dwi Prafitri[1**], Wahyu Ersila[1***]*
[1]Faculty of Health Science, University of Muhammadiyah Pekajangan Pekalongan, Ambokembang street No.8 Pekalongan, 51173, Indonesia
Email:[*]ninazuhana@gmail.com,[**]L02Prafitri@gmail.com, ***ersila.chila88@gmail.com

Abstract, **Background:** C-Section is a form of planned medical intervention that usually lasts a long time and requires respiratory control, so it is very risky to the safety of one's soul and can make patients and their families anxious. Mothers who will have this treatment will generally cause a problem, one of which is experiencing anxiety in various levels. There are several ways to help pre C-Section patients to reduce anxiety, including explaining the surgical procedure, spiritual services and hospital comfort. This study aimed to determine the effect of structured education model on the anxiety of pre C-Section patients.
Method: This study was a quasi-experiment. The population of this study was pre C-Section mothers at The Islamic Hospital of Muhammadiyah Pekajangan Pekalongan. The total sample was 30 respondents. TMAS anxiety questionnaire was used to collect the data of anxiety before and after being given structured education about pre C-section. Wilcoxon test was used to analyze the data.
Results: The result of this study indicates that the model of structured education decreased the anxiety of patients (p-value: 0,000).
Conclusions: This educational model can be applied as a standard operating procedure for pre C-section patients in the hospitals.

Keywords: Structured Education, Pre C-section . anxiety level

Background

Childbirth is a process of expelling the products of conception (fetus and placenta) that have been enough months or can live outside the womb through the birth canal or through other means, with or without assistance [1]. There are two ways of delivery, namely vaginal delivery and delivery by caesarean section (c-section). C-section is an operation to deliver the baby by making an incision or cutting on the skin, abdominal muscles, and the mother's uterus [2]. Either normal or cesarean birth will have a psychological impact on the mother and her family. Feelings of worry will be experienced by every couple because they are waiting for the birth of a baby. The worry and anxiety will increase if the mothers have to give birth through surgery. Anxiety experienced by mothers and families is usually related to all kinds of foreign procedures that must be carried out Carpenito, 2001 in [3].

According to the World Health Organization (WHO), the delivery rate for C-section is increasing in developing countries, around 5-15% of all deliveries in each country. In Indonesia, this figure reached 9.8% of the total number of deliveries, with the highest proportion in

Jakarta at 19.9% [4]. One of the treatment that can be done before surgery is by reducing the patient's anxiety [5]. Anxiety can get worse if you don't get the right treatment, so it will have an impact on the patient's unpreparedness to carry out the surgery process [6].

Researches on how to deal with anxiety in preoperative patients have been carried out using both pharmacological and non-pharmacological methods. One of the efforts that could be made by midwives or other health workers by giving health education as it is able to increase knowledge and change the mother's attitude to understand the delivery process. The provision of education also applies to patients with preoperative emergency C-section. In addition to education, it is also necessary to provide information about the complications of labor so that the mother understands that her condition is in an emergency situation that requires immediate treatment to save the life of the mother and the fetus [7].

Various psychological problems experienced by mothers giving birth in hospitals really require optimal attention and care from a midwife and her family. The roles of midwives and family support in helping mothers to adapt to psychological changes after giving birth, especially those who experience post-traumatic stress due to hospital procedures are essential [8].

The presence of health workers is very important for most women who are about to give birth because the officers provide support and information related to the delivery process. Women feel that the form of support provided by health workers has positive impact including reducing anxiety, reducing pain, avoiding stress and trauma during childbirth [9].

The purpose of the study was to determine the effect of structured education model on anxiety in pre SC patients.

Methods

This study was a Quasi Experiment research design with One Group Pretest Posttest Design. The study was conducted in the maternity ward of Islamic Hospital of Muhammadiyah Pekajangan Pekalongan from March 2019 to November 2019. The population were pre C-section mothers at this hospital. The research sample used non-probability sampling technique with consecutive sampling type, which took all samples that met the inclusion and exclusion criteria during the study. Each patient who meets the research criteria is included in the sample for a certain period of time so that the required number of subjects is met [10].

According to Roscoe in Sugiyono's book (2011, p 90) provides suggestions about the sample size for research: if the sample is divided into categories (for example: male-female, civil-private employees and others) then the number of samples for each category is at least 30 .
The TMAS test (Taylor Anxiety Scale) was used to collect the data of anxiety. It consists of 50 items in the form of questions that describe the tendency to experience anxiety. High or low anxiety is determined by the high and low total scores obtained. The higher the value obtained, the higher the anxiety. This questionnaire was given to respondents before and after being given structured education about pre C-section by using the interview method.

TMAS was compiled and developed at the University of Northwester by Janet Taylor in 1953 [11]. The selection of items describing anxiety reactions was then grouped according to the symptoms of anxiety included in the TMAS, namely: (1) Becoming restless when something is not as expected; (2) Often have difficulty breathing, stomach pain, excessive sweating; (3) Feeling afraid of many things; (4) Difficulty sleeping at night, heart palpitations, having nightmares; (5) Difficulty concentrating, always feeling alone, easily angry and offended.

According to Reynolds, TMAS has been tested for validity and reliability, based on the person correlation, the validity score is between 0.60-0.88 and has a reliability value of 0.78[12]. The TMAS anxiety measurement tool has also been translated into Indonesian and its validity

and reliability have been investigated as follows:

a. Utari (1979) TMAS in high school students got a correlation number of 0.76 and a test reliability of 0.75[11].
b. Hartono (1991) used an interval consistency approach with the split-half method of alpha coefficients in calculating the reliability of TMAS and produced numbers of 0.832 and 0.837.
c. Tiurmawati (2000) in her research on the relationship between anxiety and job satisfaction in employees has a TMAS validity coefficient that moves from 0.336 to 0.717 and a reliability coefficient of 0.924.
d. Cristiani, et.al (2000) in their research on the anxiety of women facing menopause has a validity between 0.109-0.505 with p0.005 and has a reliability value of 0.881.
e. Siregar (2013) in his research on the anxiety level of Islamic boarding school students has a TMAS validity coefficient that moves from 0.373-0.722 and a reliability coefficient of 0.912.

According to the research mentioned above, it can be concluded that TMAS is valid and reliable.

Results

The data collection process was carried out from March to December 2019 in the Midwifery Room of Islamic Hospital of Muhammadiyah Pekajangan Pekalongan. There were 30 respondents who met the inclusion criteria. The results of this study were described below:

Respondent characteristics

Table 1. Respondent's characteristic

Variable	Category	n	%
Ages	<20	1	3,3
	20-35	25	83,3
	>35	4	13,3
	N	30	100
Education level	Elementary school	3	10
	Junior high school	2	6,7
	Senior high school	20	66,7
	University	5	16,7
	N	30	100
Working status	Housewives	24	80
	Teachers	1	3,3
	Self-employed	2	6,7
	Public-employed	2	6,7
	Private-employed	1	3,3
	N	30	100

Data shows that the most of the respondents (83.3%) aged 20-35 years were reproductive age group. Meanwhile, the education level of 20 respondents (66.7%) had high school education and 5 (16.7%) had higher education and most of the 24 respondents (80%) were housewives.

At the age of 20-35 years, women are in excellent physical condition and have good mental readiness in undergoing pregnancy and childbirth so that the risk for anxiety is lower [13]. According to Zamriati 2013 there is a significant relationship between age and anxiety levels where the range of 20-35 years has a lower level of anxiety than those aged less than 20 years and more than 35 years[14].

This is supported by Hurlock's developmental theory which explains that anxiety can be controlled and controlled emotions and feelings well if a person gets

older. However, at the age of over 30 years need to be vigilant, because at this age including the age prone to pregnancy and included in the category of high-risk pregnancy. Maternal and fetal morbidity and mortality at this age have a higher risk than pregnancies at the age of 20-30 years [15].

A person's age is closely related to the source of anxiety and the level of anxiety and ability to cope with that anxiety. At a fairly mature age in terms of physical, a person is expected to have optimal health status. From a psychological point of view, an immature age will find it difficult to accept and realize that their condition must be treated properly and correctly, moreover, age <20 years is a high risk for pregnant and maternity women [16].

Long's opinion states that the older a person is, the more constructive they are in using coping with the problems at hand. This will indirectly affect a person's level of anxiety (Long, 2005 in Astuti, Hartinah, and Permana, 2019). Then the high risk limit for mothers to get pregnant and give birth is age < 20 years and 35 years[16].

In terms of education level, 20 (66.7%) had high school education and 5 (16.7%) had higher education. The level of anxiety is closely related to the level of education, the higher the level of education a person will try to find information or get good information in order to find out the situation he is currently experiencing and the causes that made him perform caesarean section surgery, so that he knows will further reduce anxiety about his condition [17]. The relationship between education and anxiety levels is that high education will be better able to overcome and use constructive and effective coping than those with low education.

Nursalam 2003 suggests that a person's level of education will affect receiving information so that the knowledge gained is wider. This will affect the patient's level of anxiety[16]. In accordance with the results of research by Ganda Sigalingling 2014. Which states that respondents with higher education are more optimistic in dealing with the process of childbirth and child care than respondents with secondary or even low education [16].

Based on the results of research Astria (2009), the higher a person's education, the more likely it is to seek treatment from health services. On the other hand, a person's low level of education will lead to a lack of information about his or her health so that it can cause anxiety. The level of anxiety is closely related to the level of education where people who have higher education will try to find information or get good information to find out the situation they are experiencing now and what causes them to have sectio caesarea surgery because the higher the level of education the higher the knowledge [17].

Anxiety of Respondents

Table 2. Respondent's anxiety before and after receive education

Anxiety	Before		Post	
	N	%	n	%
Low anxiety	0	0	11	36,7
Midle anxiety	9	30	16	53,3
Severe anxiety	21	70	3	10
N	30	100	30	100

Table 2 indicates that before receiving education, most of respondents (70%) experienced severe anxiety. Interestingly, after receiving education, the severe anxiety respondents were only 10%. This study shows that the educational model using flipcharts and booklets could reduce anxiety in mothers with c-section. Moreover, the good knowledge might reduce maternal anxiety in dealing with sectio caesaria.

A structured educational model for pre C-section patients aims to provide detailed information regarding the preparation for caesarean section, during surgery and after caesarean section. So it was hoped that good knowledge could reduce maternal anxiety in dealing with sectio caesaria.

One of the actions to reduce the level of anxiety is to mentally prepare the client. One of these mental preparations can be done through health education. Caregivers' ability to listen actively to both verbal and non-verbal messages is critical to building trusting relationships with patients and families. Preoperative health education can help clients and families identify their concerns. The nurse can then plan nursing interventions and supportive care to reduce the client's level of anxiety. Health education is essentially an activity to convey health messages to the public, groups or individuals to gain knowledge about good health [18].

The Effect Of Structured-Education Model Education On The Anxiety Of Patient Before C-Section

Based on Shapiro Wilk test, the results of normality of data are 0.017 (> 0.05) so that the data was not normally distributed, so the analysis test used the Wilcoxon test to analyze the effect of structured education model on the anxiety level of patients with pre-section caesaria

Table 3. The effect of the structured-education model of education on the anxiety of pre C-section patients

		N	Mean	Z score	Sig
The anxiety before-after education	Negative Ranks	28	14.50	-4,625	0,000
	Positive ranks	0	0.00		
	Ties	2			
	Total	30			

The table shows the comparison of anxiety before and after being given a structured education model, namely there are 28 people with anxiety results after being given a structured education model that was lower than before, 2 people had constant anxiety.

Further statistical using a Wilcoxon test showed a significance value (p <0.000). Thus, it was concluded that there was a significant difference in anxiety between before and after being given a structured education model about c-section. It means that the patient's anxiety was lower after being given a structured education model about C-section. According to Perry & Potter (2005), the benefits of structured education in preoperative patients are that patients can understand the reasons for the importance of various exercises to restore conditions after surgery and increase knowledge, skills, how to exercise correctly, reducing complications, skills at the recovery stage and shortening hospital stay[19].

Research conducted by Felton 1992; King and Tarsitano, 1992 in Capetino 1999 on Preoperative Education has shown that patients who received structured information during surgery about what they felt, saw, heard reported decreased anxiety during surgical procedures [20].

This structured education model includes the provision of programmed Health Education using flipcharts and the provision of booklets about C-section surgery as printed media that patients can study at any time. Preoperative education is a standard of perioperative care and must be carried out by nurses/midwives to meet patient needs. Education is usually carried out in the form of informal or structured.

According to Mc Donald et al, 2008 Structured preoperative education has several benefits and affects postoperative conditions. Structured education was effective in reducing anxiety before surgery. Besides, education and information obtained by individuals before surgery could improve recovery, especially for individuals who need support or who cannot move well [16].

Conclusion

All (100%) respondents stated that they where anxious, worry and fear of facing delivery by sectio caesaria. Most of respondents (70%) experienced severe

anxiety. The anxiety level decreased after receiving education. There was a significant difference in anxiety level between before and after being given a structured education model about C-section.

List Of Abbreviantion Used (If Any) Competing

C-Section : Caesarean Section

WHO : word Health Organization

TMAS : *Taylor Anxiety Scale*

Conflict of Interest Declaration

Authors declare that there is no conflict interest regarding this paper. All problem that appear related to this paper will be addressed as the regulation.

Authors contribution

1. Nina Zuhana as primary researcher, she has contribution in preparing all research needs, carry out research, prepare designs in the form of substantial concepts and designs, data collection processes analyze and interpret data
2. Lia Dwi prafitri has conttibution in conducting research, Compiling research observation guidelines, Conducting data analysis with the team, Compiling reports with the team
3. Wahyu Ersila has involved in drafting the manuscript or revising it critically

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