

## THE EFFECT OF “TEGAR” COMPLEMENTARY EDUCATION PACKAGES ON SELF EFFICACY AND ANXIETY IN POST ABORT MOTHER

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### ABSTRACT

Abortion is a maternal emergency with an incidence of 10-15% of 6 million pregnancies each year. Self efficacy is one of the main factors to improve coping behavior towards perceived loss. The mother's inability to deal with problems causes prolonged grief and affects future health, so efforts are needed to increase self-efficacy and reduce maternal anxiety. Mother's self-efficacy and anxiety are influenced by knowledge. Increased knowledge can be done by providing a complementary package of interventions "Tegar". This study uses a pre-experimental design method with a One-Group Pre-Post test design approach. The study was conducted for six months in RSUD dr. Rasidin Padang with a sample of 22 mothers who experienced spontaneous abortion during the last three months. The instrument that will be used is a questionnaire. The results of the study will be processed with a paired T-test statistical test. The results showed that the mean value of Self Efficacy before being given the intervention was 23.82 and after being given the intervention was 64.32. There is a difference in the mean value between before and after the intervention was given with a p-value of 0.000. It is hoped that health services can use complementary education packages as a therapy to increase self-efficacy and reduce maternal anxiety after abortion.

**Keywords :** abortion., self efficacy., Tegar complementary package

### INTRODUCTION

Abortion is a frightening specter for mothers who really dream of having a baby. Abortion, which in layman's language is known as miscarriage, is defined as the end of a pregnancy before the fetus is able to live outside the womb (viable), namely before the gestational age of 20 weeks or the fetus' weight has not reached 500 grams<sup>1</sup>. Of all death experiences, the loss of a fetus is considered the most difficult experience, which can disturb the emotional state and increase physiological stress, especially in the mother<sup>2</sup>. The incidence of abortion is still relatively high and threatens women's safety. In the world there are 20 million cases of abortion every year and 70,000 women die from abortion every year. The incidence of abortion in Southeast Asia in 2020 is 4.2 million per year including Indonesia, while the frequency of spontaneous abortion in Indonesia is a percentage (10-15%) of 6 million pregnancies each year or 600,000 - 900,000, while artificial abortion is around 750,000 - 1, 5 million every year, 2500 of whom end up dying<sup>3</sup>. The incidence of abortion in West Sumatra was recorded at 5.8% in 2018. According to the 2020 Padang City Health Profile, the death rate in Padang City in 2020

was found to be 21 cases, this number increased compared to 2019 with 16 people<sup>4</sup>.

Apart from the risk of death, abortion can also cause health problems, both physical and psychological. The physical impacts that occur due to abortion include pain, bleeding, blood clots, expulsion of the products of conception, while the psychological impacts include anxiety, fear, distress, sadness and depression. The physical and psychological problems caused by miscarriage are very important to address because they can create conflict with their perception of pregnancy and can affect subsequent recovery. The experience of pain, seeing bleeding, the release of blood clots and products of conception from the vagina, makes post-abortion women anxious, afraid and traumatized by the occurrence of a repeat event in the next pregnancy<sup>5</sup>.

Abortion can pose a high risk of post-abortion psychiatric disorders. Post-abortion women usually experience mental disorders called post-abortion syndrome in the form of anxiety, low self-esteem, and decreased quality of life<sup>2</sup>.

Post-abortion maternal anxiety and psychological problems that are not handled properly can cause physical and psychological changes which ultimately can increase the work of the sympathetic nerves and there will be an increase

in heart rate, respiratory rate, blood pressure, cold sweat, heartburn, urinary problems, and generally reduces energy levels in patients to the detriment of the patient themselves<sup>6</sup>. The mother's coping process is influenced by a number of factors including self-efficacy which is defined as an individual's belief about their ability to achieve goals in certain life situations. Individuals with low levels of self-efficacy tend to experience strong emotions, anxiety or even depression. Meanwhile, high levels of self-efficacy are positively correlated with optimism, satisfaction with life, and long-term health, as well as with increased capacity to overcome difficulties and lower levels of stress. Self-efficacy can influence quality of life or satisfaction with life. Self-efficacy is also a cognitive factor that influences how individuals manage stress<sup>7</sup>.

Efforts that can be made to support self-efficacy and reduce maternal anxiety are increasing understanding about abortion and the use of complementary therapies so as to help the mother's coping process in facing the problem of abortion. An understanding of the physical and emotional impact and the importance of support provided by family and health professionals can help post-abortive women navigate their miscarriage experience and identify their specific needs. Providing information and caring with a sensitive approach are said to be the two most important issues for women, if not available it causes suffering for the mother<sup>9</sup>. Complementary therapy is an alternative therapy that aims to increase relaxation and reduce maternal stress after abortion.

Health education is one intervention that can be carried out to overcome the impact of abortion which aims to increase awareness about the signs and symptoms of miscarriage, what to do if complications arise<sup>10</sup>.

The health education method is packaged in the form of a complementary education package "TEGAR" which was adopted and modified from previous research. Andriani's 2020 research tested the "TEGAR" health education package on the knowledge, attitudes and anxiety of post-abortion mothers. The results of this research showed that the "TEGAR" health education package had an effect on increasing knowledge, attitudes and reducing maternal

anxiety ( $p=0.000$ ;  $\alpha<0.05$ )<sup>5</sup>. The TEGAR package previously developed focused more on health education about abortion theory. Interventions to reduce anxiety and increase relaxation include non-pharmacological interventions. The development of non-pharmacological interventions is currently developing towards complementary therapies which must be selected based on scientific research, have benefits for improving health and are safe and have low side effects. Some complementary therapies that are widely used to reduce anxiety and manage stress are music therapy, aromatherapy, murottal therapy, guided imagery, distraction techniques, energy therapy and the use of previous coping methods<sup>6</sup>.

## MATERIALS AND METHODS

This research uses a pre-experimental design method with a One-Group Pre-Post test design approach. This research has received ethical clearance from the Ethics Commission of the Faculty of Medicine, Andalas University, Padang with number 937/UN.16.2/KEP-FK/2022. This research was conducted for six months at RSUD dr. Rasidin Padang. The samples were mothers who experienced spontaneous abortions during the last three months using a purposive sampling technique. The number of samples in this study was 22 respondents who met the inclusion and exclusion criteria. The instrument that will be used is a questionnaire. The research results will be processed using paired T-test statistical tests. Inclusion criteria were mothers who experienced a spontaneous abortion that could not be maintained during the last three months, did not experience complications such as bleeding, perforation, infection, did not experience physical disorders or other chronic illnesses, did not experience a history of mental disorders, mothers who wanted to get pregnant again, mothers living in at home with partner, able to communicate verbally, read and write, mother is willing to follow research procedures from start to finish. Meanwhile, the exclusion criteria were unmarried teenagers who had spontaneous abortions, mothers who had imminent abortions, post-abortion mothers who had used IUD contraception, post-abortion mothers who had become pregnant again when the research was conducted and mothers who were not willing to be researched.

## RESULTS

### a. Characteristics of Respondents Based on Age and Parity Status

Table 1. Respondent Characteristics

Characteristics	Mean	Sd. Deviasi	Min	Max
Age	31.86	6.66	20	44
Paritas	1.09	1.19	0	4
Number of Previous Abortions	0.09	0,29	0	1

Based on table 1, it can be seen that the average age of respondents obtained a mean value of 31.86 with a standard deviation of 6.66. The average parity of respondents was

found to be a mean of 1.09 with a standard deviation of 1.19. The number of previous abortions was found to have a mean of 0.09 and a standard deviation of 0.29.

**b. Differences in the Average Effectiveness of "Tegar" Complementary Education Packages on Mothers' Post-Abortion Self-Efficacy**

**Table 2.** Differences in the Average Effectiveness of "Tegar" Complementary Education Packages on Mothers' Post-Abortion Self-Efficacy

Variable	Measurement Time	Mean	N	Std Deviasi	95% CI	P Value
<i>Self Efficacy</i>	Pretest	23.82	22	6.25	21.05-26.59	0.000
	Posttest	31.41	22	2.89		
Anxiety	Pretest	64.32	22	9.04	60.31-68.32	0.000
	Posttest	41.41	22	10.52		

Based on table 2, it can be seen that from the 22 respondents, there was a difference in the mean value of Self Efficacy before being given the "Tough" complementary education package, which was 23.82 and after being given the "Tough" complementary education package, which was 64.32 with a p value of 0.000. Apart from that, from 22 respondents, the average anxiety score before being given the "Tough" complementary education package was 64.32 and after being given the "Tough" complementary education package was 41.41 with a p value of 0.000.

**DISCUSSION**

**a. Characteristics of Respondents Based on Age and Parity Status**

Many factors cause abortion, including activity, maternal age during pregnancy, maternal illness, genital abnormalities, trauma, and chromosomal abnormalities. The results of Akbar's research in 2019 found that the causes of abortion were the mother's age at the time of pregnancy (27%), parity (21%), history of abortion (10%), pregnancy spacing (9%), gestational age (7%), education level (6%) and work (6%), and anemia (5%). Age and parity are the main factors causing abortion in Indonesia<sup>3</sup>.

Age characteristics are one of the main causes of abortion. The safe age for pregnancy is 20 to 35 years. This is because at the age of under 20 years the condition of the mother's reproductive organs, such as the muscles of the uterus, are not yet good enough, their strength and contractions and the hormonal system are not yet well coordinated. Apart from that, the mother's psychological condition is considered to be unstable, she feels unprepared to face pregnancy, and she feels depressed in cases of unwanted pregnancy. At the age of more than 35 years, the function of the mother's reproductive organs and psychological condition are considered to have deteriorated. Above the age of 35 years is usually also associated with the onset of diseases that complicate pregnancy such as hypertension, diabetes mellitus, and other chronic diseases which increase the risk of spontaneous abortion, premature separation of the placenta, intrauterine growth restriction, macrosomia, and stillbirths in older gravidas old<sup>1,15</sup>.

**b. Differences in the Average Effectiveness of "Tegar" Complementary Education Packages on Mothers'**

**Post-Abortion Self-Efficacy**

Several factors that influence the mother's coping process during pregnancy and grief are desires, beliefs, (self-efficacy), mother's perception, family support and mother's age. In general, self-efficacy is the core of the social cognitive theory put forward by Albert Bandura which emphasizes the role of observational learning, social experience, and mutual determinism in personality development. According to Bandura, self-efficacy is the belief that a person can master a situation and create positive results. Self-efficacy has a strong influence on behavior. People with high self-efficacy to acquire a skill or carry out a task will participate more readily, work harder, persevere more in difficulties, and achieve higher levels of results. However, high self-efficacy will not be competent if the required knowledge and skills are lacking<sup>8</sup>.

Losing a pregnancy is a stressful event that can trigger a psychological crisis. The process of overcoming difficult health-related situations is shaped by a number of factors, one of which is self-efficacy. Self-efficacy can influence quality of life or satisfaction with life. Self-efficacy is also a cognitive factor that influences how individuals manage stress. Iwanowicz-Palus et al's 2021 research on quality of life, social support and self-efficacy of mothers after abortion, found that the overall quality of life score of respondents was low (3.90), the average self-efficacy score was low (15.2). Quality of life correlates with social support and self-efficacy (p <0.05)<sup>7</sup>.

According to Stuart and Sundeen (2016), anxiety is a response to certain threatening situations and is a normal thing that occurs accompanied by development, change, new experiences, as well as finding one's identity and life. Anxiety is an emotional state without a specific object. Anxiety is triggered by the unknown and accompanies all new experiences, such as going to school, starting a new job or giving birth to a child. This characteristic of anxiety is what differentiates it from fear. Abortion can affect a woman's psychological well-being, increased psychological pressure can result in anxiety after a spontaneous abortion. Women with a history of previous abortion have higher levels of anxiety than women who do not have a history of previous abortion. Even women who experience spontaneous abortion experience anxiety when going to the

hospital. The anxiety experienced by mothers after spontaneous abortion will last for quite a long time, between 1 and 3 months<sup>2</sup>.

Pregnant women with a history of spontaneous abortion can experience mental disorders. This is caused by several factors, the first is that women with a history of spontaneous abortion feel guilty about themselves because they were not able to maintain their fetus. Second, women with a history of spontaneous abortion feel that they have failed as mothers due to the loss of their fetus and thirdly, around 50% of women who experience spontaneous abortion need a long time (1 year) to get pregnant again. This of course will affect a woman's anxiety level in subsequent pregnancies<sup>2</sup>.

Excessive anxiety can cause various symptoms such as muscle tension, depression, fatigue, difficulty concentrating, and sleep disorders which impact an individual's daily life in various aspects of life. This anxiety can also cause individuals to lose their ability to carry out daily activities quickly and efficiently, causing disability or disability if not treated immediately<sup>11</sup>.

Health education is one of the interventions that can be carried out to overcome the problem of abortion which aims to increase awareness about the signs and symptoms of abortion, what to do if complications arise, as an alarm for women undergoing a new pregnancy, helping post-miscarriage patients who experience emotional problems, psychological and spiritual so that you no longer feel anxious, traumatized, and ready to get pregnant again<sup>10</sup>.

The complementary education package "TEGAR" was adopted and modified from previous research. Andriani's 2020 research tested the "TEGAR" health education package on the knowledge, attitudes and anxiety of post-abortion mothers. The results of this research showed that the "Tough" health education package had an effect on increasing knowledge, attitudes and reducing maternal anxiety ( $p=0.000$ ;  $\alpha<0.05$ )<sup>5</sup>. The TEGAR package previously developed focused more on health education about abortion theory. Meanwhile, in this study, researchers made modifications by providing additional health education in the form of various complementary therapies to support mothers' psychology after abortion. The intervention is carried out alternately for each individual, this allows the respondent to receive clear information and is supported by explanations of the material using flip sheets, booklets and videos.

The "TEGAR" Complementary Package consists of an explanation of abortion theory and the main complementary therapies to reduce anxiety and increase maternal self-efficacy after abortion. Complementary therapies recommended to reduce anxiety are music therapy, aromatherapy, murottal therapy and guided imagery<sup>11</sup>.

According to an analysis study of 14 international research journals relevant to research variables and involving 1445 subjects conducted by Novianti and Yudianto in 2022, the results showed that music therapy can reduce individual psychological problems<sup>12</sup>. Lavender oil has several

ingredients such as monoterpene hydrocarbons, camphene, limonene, geraniol, linalool, nerol and most of it contains linalool and linalool acetate with an amount of around 30-60% of the total weight of the oil, where linalool is the main active ingredient as a relaxant to reduce anxiety<sup>13</sup>.

Providing Al-Qur'an murottal therapy is one way to reduce the stress level of abortion patients, because Al-Qur'an murottal therapy can create a peaceful and calming atmosphere (relaxation). This is in accordance with Syarbini and Jamhari (2012) who stated that the Al-Qur'an provides benefits and is effective medicine for someone who experiences sadness, despair, anxiety and the Al-Qur'an also provides calm to the human body system<sup>14</sup>. By imagining a pleasant place or situation, individuals will find a point of relaxation, especially if when imagining it involves the senses such as sight, smell, touch, hearing, and even taste. The guided imagery component is more than just visual, but involves the five senses in the form of smell, hearing, taste and taste to be able to change a person's thoughts, emotions and behavior, through the use of these five senses it can influence an individual's personal perspective towards themselves or the surrounding environment<sup>15,16</sup>.

## CONCLUSIONS AND SUGGESTIONS

Based on the results of research on "tough" education packages on self-efficacy and anxiety in post-abortion mothers, it can be concluded that there is an influence of "TEGAR" education packages on self-efficacy and anxiety with a  $p$  value of 0.000. It is hoped that health services can use complementary education packages as a therapy to increase self-efficacy and reduce maternal anxiety after abortion.

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