



Relationship Between Delivery Confidence and Mother-Fetal Attachment During the Covid-19 Pandemic

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Abstract. Confidence in facing childbirth is the main key for a pregnant woman in preparing herself mentally for a safe and comfortable delivery. As an internal factor, self-confidence greatly influences other internal factors during pregnancy such as the attachment of an inner relationship between mother and fetus. While the external factor of self-confidence can be influenced by the covid-19 pandemic which is currently a world epidemic. This study aims to find a relationship between self-confidence in dealing with childbirth and the attachment between mother and fetus during the covid-19 pandemic. The research method used a cross-sectional approach. The study population was pregnant women who checked themselves at PKU Muhammadiyah Hospital Yogyakarta. Sampling using the G-Power software (effect size; 0.05, power 0.80) obtained the minimum number of samples was 67 respondents based on inclusion criteria including third trimester pregnant women, mothers with an age range of 20–35 years, regardless of education and employment status. Data analysis used the Pearson's correlation test if the data distribution was normal or Kendal's tau b if the data distribution was not normal. The measurement of self-confidence in facing childbirth uses a short form childbirth self-efficacy inventory, while mother-fetal attachment uses a prenatal attachment inventory. Both instruments have been adopted and adapted into Indonesian.

Keywords: self-confidence · confidence in the face of childbirth · pregnant · labor

1 Introduction

Confidence in facing childbirth is the ability to cope with childbirth and is an important factor that can affect the motivation of pregnant women to undergo a normal delivery process and affect their perception of the outcome of childbirth (Lowe, 1989, 1991). Bandura, the first scientist to introduce the theory of self-efficacy, underlined that people will act on their belief in what they can do, and on the belief in the possible outcomes that they previously believed [3]. Furthermore, according to Bandura, a woman's confidence in dealing with childbirth develops negatively or positively through previous childbirth experiences, discussions with midwives, nurses, doctors or other health workers, and

discussions with family or friends [3]. Fear of facing labor puts women in a vulnerable position to experience self-confidence in facing childbirth, and research indicates that there is a significant relationship between confidence in facing childbirth in pregnant women and confidence in facing childbirth [6]. Pain during childbirth is one of the causes of fear that can reduce the level of mother's confidence in facing the delivery process in addition to the delivery environment, namely in hospitals, clinics, health centers or independent practice midwives [4].

Psychological changes in the third trimester of a pregnant woman begin to feel afraid of the pain and danger that will arise during childbirth and feel worried about the safety of the fetus. The discomfort reappears in the third trimester and many mothers feel that they are strange, messy, awkward and ugly, so they need more attention from their families, especially husbands. Maternal-fetal attachment plays an important role in the health of pregnant women and fetuses and has an influence on the mother's decision to live a healthy life during pregnancy. Maternal – fetal there is a significant relationship between confidence in facing childbirth in pregnant women with confidence in facing childbirth [6]. Pain during childbirth is one of the causes of fear that can reduce the level of mother's confidence in facing the delivery process, in addition to the delivery environment, namely in hospitals, clinics, health centers or independent practice midwives [4]. Psychological changes in the third trimester of a pregnant woman begin to feel afraid of the pain and danger that will arise during childbirth and feel worried about the safety of the fetus. The discomfort reappears in the third trimester and many mothers feel that they are strange, messy, awkward and ugly, so they need more attention from their families, especially husbands. Maternal-fetal attachment plays an important role in the health of pregnant women and fetuses and has an influence on the mother's decision to live a healthy life during pregnancy. Maternal – fetal attachment is the relationship between mother and fetus during pregnancy. This can be seen as the mother's involvement in showing love, care and commitment to maintaining the health of the fetus. There are five components of maternal and fetal attachment during pregnancy, namely wanting information about fetal health, pleasure to interact with the fetus, wanting to care for the fetus and serving its needs during pregnancy.

[2] States that maternal-fetal attachment is carried out during pregnancy because it plays an important role in the health of the mother and fetus and has a positive impact on the mother and fetus in the future social, emotional, and child development, and as gestational age increases, the maternal rate increases. -fetal attachment felt in pregnant women. If maternal-fetal attachment is not carried out during pregnancy, it will have a negative impact on the future of the mother and the development of the fetus [2, 7], stated that when a fetus If he doesn't have someone who loves him, then one day he will grow up to be an emotional child [7]. Therefore, the theory of inner bonding has implications for fetuses who have the natural ability to transmit roles when they experience stress or pain and parents will also have the sensitivity to be able to communicate with the fetus. [7], states that children are the backbone of the next generation of a nation to produce a brilliant generation, which will be determined by women as mothers or prospective mothers who will care for and educate their children. This is a very important role, when the inner bond between mother and child has begun to form since the pregnancy process. [2] States that the interaction between mother and fetus is closely related to

the psychological and health behavior of pregnant women. Pregnant women whose pregnancies were not planned have a lower attachment to the fetus compared to pregnant women whose pregnancies were planned and supported by their husbands and families. From the psychological aspect, it shows that there is affection that develops between mother and fetus during pregnancy, this relationship will continue to increase gradually during pregnancy, especially after fetal movement is felt [2]. Based on this background, this study aims to see the relationship between Confidence in Facing Childbirth and Mother-Fetal Attachment During the Covid-19 Pandemic Period.

2 Method

The research used is non-experimental with multivariate correlation analytic. The time approach is cross sectional, namely the independent variable and the dependent variable are measured at one time. The population of this study were pregnant women in the third trimester who checked themselves at the PKU Muhammadiyah Yogyakarta Hospital. The sampling technique was taken for this study used purposive sampling, namely the technique of determining the number of samples with several considerations made by the researcher himself. To determine the sample size of the respondents, the researcher used the software G. Power (effect size: 0.05, power: 0.80) and obtained a sample size of 85 respondents. The inclusion criteria in this study were:

- Primigravida and multigravida mothers
- Mothers of all ages
- Mothers in the third trimester of pregnancy
- Mother with single pregnancy

The tools and methods of data collection in this study were divided into two, namely the Short form Childbirth Self-efficacy Inventory (CBSEI) and the Indonesian Version of Prenatal Attachment Inventory (IPAI). IPAI as the original version of the Prenatal Attachment Inventory (PAI) by Muller (1993) was later adopted and adapted into Indonesian by [7], with reliability results based on Cronbach Alpha of .97. This value has a higher value than the reliability test of Muller's (1994) questionnaire, namely Cronbach's Alpha of .83. This questionnaire is used to measure the independent variables with the type of tiered statement, namely each statement has provided a choice of graded answers according to the feelings or behaviors that tend to represent and feel by the mother during the last three months. The number of statements is 21 items (likert scale). Data analysis uses the Pearson's correlation test if the data distribution is normal or Kendal's tau b if the data distribution is not normal. The measurement of self-confidence in facing childbirth uses a short form childbirth self-efficacy inventory, while mother-fetal attachment uses a prenatal attachment inventory. Both instruments have been adopted and adapted into Indonesian.

3 Result and Discussion

The minimum age of respondents is 19 years and the maximum is 39 years with average age of 26.75 (SD = 4.53). While the minimum gestational age of the mother was 28 weeks and the maximum was 39 weeks with an average of 32.35 weeks (SD = 3.09). At the level

of education, almost 50% of respondents graduated from high school, while the other 50% were divided almost equally among respondents who completed elementary and junior high school education. Then on employment status, more than 50% of respondents work outside the home and only about 30% are housewives. In detail, the characteristics of the respondents can be described according to the table.

The results of the cross tabulation showed that primigravida mothers had low self-confidence with a low maternal-fetal attachment score of 5.9% or only 5 respondents out of a total of 85 respondents. Meanwhile, respondents with high self-confidence and high maternal-fetal attachment scores were 56.5% or 48 respondents. Overall, there are 33 mothers who fall into the category of low self-confidence in facing childbirth, and 52 people with high self-confidence in facing childbirth are 52 people. Meanwhile, there were 53 mothers with low maternal-fetal attachment and 32 mothers with high maternal-fetal attachment (Tables 2 and 3).

In Table 1, the significance number between self-confidence in dealing with childbirth and maternal-fetal attachment is $.000 < 0.01$. Based on the statistical analysis test for the normality of the data using Saphiro Wilk, it was found that the data were not normally distributed. So the researchers used the Kendal Tau-b statistical test. The interval or ratio data scale was then converted into ordinal data on both variables, namely the low and high categories on the variable of self-confidence in dealing with childbirth and

Table 1. CHARACTERISTICS OF RESEARCH RESPONDENTS

	<i>Category</i>	<i>Frequency (n = 85)</i>	<i>Percentage (%)</i>
Maternal age	< 20 years	2	1.5
	20–35 years	81	62.3
	35 years	2	1.5
Education level	Primary-Secondary School	22	16.9
	High School	40	30.8
	College	23	17.7
Employment status	Housewife	31	23.8
	Working outside	54	44.1.5

Table 2. CROSS TABULATION OF MATERNAL CONFIDENCE IN FACING CHILDBIRTH WITH MATERNAL-FETAL ATTACHMENT SCORES

<i>Confidence</i>	<i>High</i>		<i>Low</i>		<i>% Total</i>
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	
Low	5	(5,9%)	48	(56,5%)	62,4%
High	28	(32,9%)	4	(4,7%)	37,6%
Total	33	(38,8%)	52	(61,2%)	100%

Table 3. KENDAL'S TAU CORRELATION TEST RESULTS WITH CORRELATION COEFFICIENT

<i>Significance</i>	<i>Description</i>
0.000	There is a correlation

the variable of maternal-fetal attachment. Based on the statistical analysis test, it can be seen that there is a significant relationship between the variable of self-confidence in dealing with childbirth in pregnant women and maternal-fetal attachment with the level of strength of the relationship between variables of .776. Thus, there is a very strong relationship between self-confidence in dealing with childbirth and maternal-fetal attachment in primigravida pregnant women at PKU Muhammadiyah Kota. In addition, based on the table, it is also known that the correlation coefficient between the variables of self-confidence in dealing with childbirth and maternal-fetal attachment is positive. This means that the higher the level of confidence in dealing with the delivery of pregnant women, the lower the maternal-fetal attachment score.

Relationship between self-confidence in dealing with childbirth and maternal-fetal attachment. In this statistical descriptive study, the researchers invited 360 pregnant women with preterm pregnancies to complete the research questionnaire. Inclusion criteria included mothers with an age range of 18 to 35 years, gestational age between 20–40 weeks, no history of disease. Mothers with high levels of self-confidence in facing childbirth tend to have low maternal-fetal attachment scores during their pregnancy. However, the difference to the current study is the characteristics of respondents who are pregnant women with term pregnancies. Thus, self-confidence in dealing with labor caused in previous studies can be influenced by the variable of preterm pregnancy. Another research that is in line is the research a significant relationship between the level of confidence in dealing with the delivery of pregnant women and the level of maternal-fetal attachment. Meanwhile, in the meta-analysis conducted by [5], it was found that self-confidence in dealing with maternal labor is one of the contributors to the maternal-fetal attachment score, in addition to other factors, namely the gender of the prospective baby, as well as the mother's personality such as the mother's attachment pattern [5].

The results of this study are also supported by the results of research conducted by [1]. In this study, researchers provided training on maternal-fetal attachment skills to the experimental group. While in the control group, respondents were only observed during the intervention process. The results of the study found that there was a significant difference in self-confidence scores in dealing with childbirth between the observation and intervention groups. The level of confidence in facing childbirth in the intervention group was lower than the level of confidence in facing childbirth in the control group. However, the different methods used, even with the same results, cannot be generalized to this study. In a study with 360 primigravida pregnant women, it was found that there was a significant relationship between self-confidence in dealing with maternal labor and maternal-fetal attachment. This type of relationship is a direct relationship

with a significance level of < 0.001 . The majority of respondents had diploma education (48.3%) with average age of 26.6 years and average gestational age of 30 weeks. Furthermore, the researchers conducted a variance test using the ANOVA statistical test to determine the demographic factors that contributed to the high level of self-confidence in dealing with childbirth in mothers. The results of the analysis found that demographic factors, an education level and history of infertility had a higher self-confidence score in facing childbirth compared to mothers without history of infertility.

4 Conclusion

There is a significant positive correlation between the level of self-confidence in dealing with childbirth and maternal-fetal attachment of primigravida pregnant women. This relationship can be interpreted as the higher the self-confidence score in dealing with childbirth in pregnant women, the lower the maternal-fetal attachment score the mother has. Suggestions to further researchers in an order to increase the number of respondents to be able to generalize the results of the study, as well as consider a conducive place for respondents when filling out the questionnaire. It is necessary to carry out more complex statistical tests to be able to explore more deeply about the factors that are indirectly related) between the anxiety level of pregnant women and maternal-fetal attachment scores.

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