

Optimizing IT for Physical and Psychological Preparedness in Online Birthing Classes

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Abstract

To face the labor process and get a positive experience during the labor process, it requires various preparations. Starting from knowledge, physical preparation and mental preparation. Breath is a vital source of life for living things, both humans, animals and plants. When a baby is born into the world, the first thing it does is breathe. When a mother in labor catches her breath, the mother will be able to control her mind and body so that the birth process that is experienced becomes smooth and minimally traumatized. The purpose of the study was to find out the effectiveness of breathing for birth with physical and psychological readiness in pregnant women in facing the birth process through online classes at Bidan Kita Klaten in 2022. The method of this research is quantitative research. The research design used was cross-sectional (cross-sectional). The sampling technique used was purposive sampling, with a sample of 122 pregnant women who took the online breathing for birth class at Bidan Kita Klaten. The results of the Pearson Correlation statistical test show that there is a relationship between online breathing for birth class learning and the mother's physical readiness to face childbirth (sig. (2-tailed) 0.000 (less than 0.05)). The correlation value is 0.956, meaning that the two variables have a strong or perfect relationship. The value of $r = +1$ means a perfect positive linear relationship. There is a relationship between online breathing for birth class learning and the psychological readiness of mothers in facing childbirth (sig. (2-tailed) 0.000 (less than 0.05)). The correlation value is 0.944, meaning that the two variables have a strong or perfect relationship. The value of $r = +1$ means a perfect positive linear relationship.

Keywords — Breathing for Birth, Physical and Psychological Readiness of Pregnant Women

1. INTRODUCTION

To face the childbirth process and attain a positive experience during it, various preparations are needed, ranging from gaining knowledge to physical and mental preparation (Aprillia, 2018). The required physical preparations include breathing exercises, physical workouts, and proper nutrition. Meanwhile, mental preparation involves engaging in hypnobirthing relaxation, positive affirmation meditation, and maintaining inner peace.

The current Maternal Mortality Rate (MMR) is still far from the target of the Sustainable Development Goals (SDGs), which is 70 per 100,000 live births by 2030. According to a World Bank report in 2017, there are still four mothers in Indonesia who die each day due to childbirth complications. The World Health Organization (WHO) reported in 2015 that the MMR was 216 per 100,000 live births. Meanwhile, data from the Ministry of

Health of the Republic of Indonesia in the 2018 Health Profile indicated that there was a decrease in maternal deaths during the period of 1991-2015 from 390 to 305 per 100,000 live births. Although there has been a downward trend in the maternal mortality rate, it has yet to reach the targeted goal.

Observing the above data, where the decline in maternal mortality rates in Indonesia is very slow, there is undoubtedly a need for collaboration between healthcare workers and the community, especially pregnant women and their families, who fundamentally bear the highest responsibility for their own health status. The importance of self-empowerment efforts to enhance knowledge and skills related to improving maternal health status becomes a crucial aspect that should be supported and facilitated by healthcare workers in Indonesia.

According to Aprillia (2019), several things that should be prepared by an expectant mother and her family to ensure a positive birthing experience include the importance of knowledge, breath preparation, mind preparation, and body preparation. During the birthing process, breathing is extremely crucial and must be mastered by pregnant and birthing mothers. Breath is a vital source of life for all living creatures, including humans, animals, and plants. When a baby is born, the first thing it does is breathe. When a birthing mother regulates her breath, she will be able to control her mind and body, making the childbirth process smoother and minimizing trauma. To achieve a positive birthing experience (gentle birth), preparations are needed from the pregnancy stage.

Knowledge plays a crucial role for expectant parents, as sufficient understanding of pregnancy, childbirth, breastfeeding, and parenting can significantly reduce or even eliminate fear. It's important to recognize that fear is an enemy in the childbirth process. Fear often arises from the unknown; not knowing what to do, or what is happening to one's body. This lack of knowledge can lead to a lack of confidence in mothers, resulting in fear, worry, and negative emotions that may hinder the childbirth process itself (Aprillia, 2019).

Considering the importance of pregnant women's knowledge about childbirth, midwives play a crucial role. As healthcare professionals, midwives serve as communicators, motivators, facilitators, and counselors for the community (Potter and Perry, 2007). Midwives have a significant duty in providing health education, which encompasses antenatal education, preparation for parenthood, and may extend to women's health, sexual health, reproductive health, and child care (Eko & Yanti, 2010). Given the role of midwives as educators and health promoters in the community, and considering the situation and conditions of the COVID-19 pandemic in Indonesia and globally, which limits face-to-face interactions, midwives need to adapt the process of educating the community by utilizing and leveraging advancements in technology and communication.

The onset of the Coronavirus Disease (Covid-19) pandemic has made online-based education and learning a solution and one of the efforts to prevent the spread of the coronavirus.

The online class program at Bidan Kita began in 2016, utilizing media platforms such as Skype and Google Hangouts. The number of followers of the Online classes at Bidan Kita

was about 295 people in 2016, 489 in 2017, and 675 in 2018. Following the Covid-19 pandemic and the increasing need and interest of the public in online classes, there has been an increase in the number of participants in online classes, as well as a diversification of online class programs.

Based on the background mentioned above, the author is interested in selecting the title "Optimizing IT for Physical and Psychological Preparedness in Online Birthing Classes"

2. RESEARCH METHOD

This study is a quantitative research. The research design employed is cross-sectional. The research was conducted at the Klinik Pratama Bidan Kita Klaten. The study took place during June - July 2022. The population for this study comprises all pregnant women who participated in the Breathing For Birth online class program during June – July 2022, totaling 122 individuals. The sample size was determined using purposive sampling technique, a method where each respondent is selected based on specific considerations aimed at obtaining more representative data (Sugiyono, 2018). The reason for choosing purposive sampling in this study is because the respondents meet the criteria.

Bivariate analysis is an analysis that determines the interaction between two variables, whether comparative, associative, or correlative. There are two tests in bivariate analysis: parametric and non-parametric. The bivariate analysis used to test the hypothesis in this study is Pearson correlation.

2.1. Physical and Psychological Readiness of Pregnant Women in Facing Childbirth

Table 1. Average Physical Readiness Scores of Participants in the Breathing for Birth Online Class

Physical Readiness	Average Value (1-5)
Breath Preparation	4,749
Preparation with Yoga Exercise	4,760
Achievement of Balanced Nutrition	4,768
General Condition of the Mother	4,768

From Table 1, it can be observed that the average readiness scores for mothers' physical preparation for childbirth are as follows: breathing preparation at 4.749, yoga exercise preparation at 4.760, fulfillment of balanced nutrition at 4.768, and the overall condition of the mother at 4.768.

Table 2. Average Psychological Readiness Scores of Participants in the Online Breathing for Birth Class

Psychological Readiness	Average Value (1-5)
Self-Confidence	4,790
Calmness	4,780
Enthusiasm	4,790
Ability to Self-Motivate	4,780

From Table 2, it can be seen that the average values for the psychological readiness of mothers in facing childbirth are as follows: confidence at 4.790, composure at 4.780, enthusiasm at 4.790, and the ability of mothers to motivate themselves at 4.780.

2.2. Bivariate Analysis

- 1) The Correlation Test of the Effectiveness of Breathing for Birth Training with the Physical Readiness of Pregnant Women in Facing the Childbirth Process through Online Classes at Bidan Kita Klaten in 2022.

Table 3. Pearson correlation test on the effectiveness of Breathing for Birth training in relation to the physical readiness of pregnant women facing the childbirth process, conducted through online classes at Bidan Kita Klaten in the year 2022.

Correlations			
		Pembelajaran	Fisik
Pembelajaran	Pearson Correlation	1	.956**
	Sig. (2-tailed)		.000
	N	121	121
Psikologis	Pearson Correlation	.956**	1
	Sig. (2-tailed)	.000	
	N	121	121

** . Correlation is significant at the 0.01 level (2-tailed).

The statistical test results using the Pearson correlation test indicate a sig. (2-tailed) value of 0.000 (less than 0.05), leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a). This demonstrates a significant relationship between the online "Breathing for Birth" classes and the physical readiness of mothers in preparation for childbirth. The correlation value of 0.956 implies that the two variables have a strong or perfect relationship. A value of $r = +1$ signifies a perfect positive linear relationship. Thus, it is evident that there is an effectiveness of the "Breathing for Birth" technique in enhancing the physical readiness of pregnant women in facing the childbirth process, as demonstrated through online classes at "Bidan Kita Klaten" in the year 2022.

- 2) Testing the Correlation of the Effectiveness of Breathing for Birth Training with Psychological Readiness in Pregnant Women Facing the Childbirth Process through Online Classes at Bidan Kita Klaten in 2022.

Table 4. Pearson Correlation Test on the effectiveness of 'Breathing for Birth' in relation to the psychological readiness of pregnant women facing the childbirth process through online classes at 'Bidan Kita Klaten' in 2022.

Correlations			
		Pembelajaran	Psikologis
Pembelajaran	Pearson Correlation	1	.944**
	Sig. (2-tailed)		.000
	N	121	121
Psikologis	Pearson Correlation	.944**	1
	Sig. (2-tailed)	.000	
	N	121	121

** . Correlation is significant at the 0.01 level (2-tailed).

The statistical test results using Pearson correlation show a sig. (2-tailed) value of 0.000 (less than 0.05), leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a). This indicates a significant relationship between the "Breathing for Birth" online classes and the psychological readiness of mothers in facing childbirth. A correlation value of 0.944 implies a strong or perfect relationship between the two variables. A value of $r = +1$ signifies a perfect positive linear relationship. Consequently, it suggests that the "Breathing for Birth" technique is effective in enhancing the psychological readiness of pregnant women for childbirth through online classes at "Bidan Kita Klaten" in 2022.

These results align with the theory by Bobak and Lowdermilk (2004), which states that physical readiness is related to the mother's health condition, general physical condition including vital signs, nutritional status, and body stamina. Mastery of breathing techniques is also crucial in the childbirth process, considering breathing is key. The physical condition, including the muscles of the legs, thighs, and pelvis, also significantly affects the process. Primigravida mothers generally do not have a clear understanding of the childbirth process. Mothers who have experienced trauma during previous childbirths can also have their psychological condition affected during delivery. Psychological preparation is essential to avoid panic, tension, and fear during childbirth.

In the childbirth process, when the birthing mother can master her breathing techniques, the process can proceed more smoothly and comfortably. This study is supported by the findings of Aprillia (2020), which suggest that mastering breathing enables an individual to control their thoughts and emotions, and ultimately, their body. Breathing serves as a pain relief technique that greatly aids mothers in maintaining relaxation and comfort, thereby significantly helping them in managing the sensation of pain experienced during the childbirth process.

Janet Balaskas, in her book "Active Birth" (2013), states how breathing can help a birthing mother attune to the rhythm of her body. Practicing breathing techniques from as early as 8 weeks into pregnancy can assist mothers in easily navigating through the contractions during labor.

According to Marie T. (2016), previous research has shown that breathing significantly influences the reduction of pain levels during the first stage of labor. Fundamentally, the technique of deep breathing relaxation can alleviate tension in the mother, reducing stress during labor pains. By employing deep breathing relaxation techniques, pain can be controlled by minimizing the activity of the sympathetic nerves in the autonomic nervous system. These techniques can diminish the sensation of pain and control the mother's intensity of reaction to it. Stress-inducing hormones such as adrenaline and cortisol are reduced, allowing the mother to enhance her concentration and feel calmer, thereby facilitating the regulation of her breathing.

3. CONCLUSION

The results of the statistical test using Pearson correlation indicated a sig. (2-tailed) value of 0.000 (less than 0.05), leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a). This signifies a relationship between the online class learning of "Breathing for Birth" and the psychological readiness of mothers in facing childbirth. The correlation value of 0.944 means that the two variables have a strong or perfect relationship. A value of $r = +1$ indicates a perfect positive linear relationship. Consequently, this implies the effectiveness of the "Breathing for Birth" method in enhancing the psychological readiness of pregnant women facing the childbirth process through online classes at "Bidan Kita Klaten" in the year 2022.

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