

THE INFLUENCE OF BIRTH BALL ON FEAR IN THE DELIVERY PROCESS

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ABSTRACT

The fear of childbirth caused by pain can cause stress which causes excessive release of stress hormones resulting in smooth muscle tension and vasoconstrictive blood vessels resulting in decreased uterine contractions, decreased uteroplacental circulation, reduced blood flow and oxygen to the uterus. One of the management of fear reduction is using birth balls. The purpose of this study was to analyze the effect of birth ball intervention on reducing fear in maternity mothers. This research is a type of intervention research with experimental quasi design. The location used for this research is at PMB Bd. Aisyah Mandalawangi-Pandeglang - Banten in May – June 2023. The sample used in this study was 33 respondents and was selected using purposive sampling. Statistical analysis using independent t test. The average fear score before the intervention was 62.76 and the average fear score after the birth ball intervention was 57.42. The results of the independent t test obtained Sig.2-tailed values of $0.015 < 0.05$.

Keywords: birth ball; delivery; fear of childbirth

INTRODUCTION

In general, early pregnancy will provide a feeling of pleasure and happiness for a woman and cause curiosity about self-change and fetal development. However, at the same time there is also a sense of anxiety in pregnant women. Especially approaching labor there will be changes in stress hormones that are strongly associated with erratic maternal mood, so that maternity mothers will very likely feel afraid of pain and physical dangers that will arise at the time of labor (Supliyani, 2017). The term 'fear of childbirth' (FOC) was popularized in 1981 as: "a strong anxiety that has interfered with the process, functioning and well-being during childbirth". In addition, a more severe fear can be described as anxiety. Then, during the 1990s, studies from Finland defined FOC as health problems of pregnant women in the face of childbirth associated with anxiety disorders or phobias that can give rise to physical complications, nightmares and concentration problems. That phobia in childbirth is called "tokophobia" which is characterized as "irrational fear in the face of childbirth" including the desire to avoid childbirth (Nilsson, 2018).

Previous studies have reported the prevalence of fear in maternity globally reaching 20% or even up to 30% of all deliveries, fear of labor pain is also one of the reasons for many women wanting a C-section. However, prevalence variations can also depend on the size or instruments used such as different questionnaires, or estimated through measurements of physiological indices such as stress hormones in labor (Nilsson, 2018). The pain or fear that arises is actually a signal that indicates that the labor process has begun. Labor pain arises as a result of the mother's physical reflexes and psychic responses. Tension to fear can aggravate the perception of pain experienced by mothers when facing labor and can end in panic. This can cause a physiological response that reduces the ability of the uterus to contract properly so that it will prolong the time of delivery (Sutriningsih, 2019). Fear will be greatly exacerbated by pain. Discomfort, fear and pain are problems for maternity mothers. This is the biggest hurdle in labor and if not overcome will have an impact on hampering the progress of labor. Maternity mothers who are difficult to adapt to labor pain can cause uncoordinated uterine contractions which can result in prolongation of labor and

fetal welfare is disrupted. Research also mentions that fear can interfere with psycho-neuro-endocrinoimmune (PNEI) aspects, which can cause misalignment of soul and mind which can ultimately lead to disruption of nervous balance, hormones, and ultimately decreased endurance (Prananingrum, 2015). (Siregar, 2023)

Labor pain can cause stress which causes excessive release of stress hormones, catecholamines and steroids which can cause smooth muscle tension and vasoconstrictive blood vessels resulting in decreased uterine contractions, decreased uteroplacental circulation, reduced blood flow and oxygen to the uterus (Choirunissa, 2021). Pharmacological pain management is indeed more effective than nonpharmacological methods, but pharmacological methods are more expensive and have the potential to cause adverse effects and not all health facilities provide these services. So that many nonpharmacological therapies have emerged to reduce pain in labor where every level of society can do and health services can facilitate, are cheap, simple, effective and without adverse effects. One nonpharmacological method that can be used to reduce labor pain is birth ball therapy. (Apriani, 2020)(Simanjuntak, 2022) Birth Ball means birth ball where in the intervention the mother who has entered the 1st time of labor must occupy the ball to reduce pain during labor where the birth ball is very good at regulating an upright posture, will support well the birth process and help the fetal position in an optimal position so as to facilitate childbirth with normal conditions (Sutriningsih, 2019; Kurniawati, 2016).

Based on research conducted by (Sutriningsih, 2019) using the Wilcoxon Signed Ranks Test, it was reported that there was an effect on the use of birthing ball on reducing labor pain when I on active phase mothers at Helna Tamansari Clinic p value < 0.001. A preliminary study on fear perception has been conducted on 10 maternity mothers at Bd. Aisyah's clinic. The results of the W-DEQ questionnaire given showed that all maternity mothers felt a sense of pain in the face of labor. Bd. Aisyah Clinic has provided birth balls to overcome fear and provide comfort, but no research and analysis has ever been conducted on the effectiveness of using birth balls. This makes researchers interested in conducting research on the effect of the use of birth balls on reducing fear in the face of childbirth.

METHOD

This research is a type of intervention research with an experimental quasi design. The location used for this research is at PMB Bd. Aisyah Mandalawangi-Pandeglang - Banten in May – June 2023. The sample used in this study was 33 respondents and was selected using purposive sampling. Based on the criteria and contraindications listed in the inclusion and exclusion criteria. Inpartu mothers who feel pain. The long opening is more than 2 hours at each opening. Long drop in the baby's head Malpresentation fetus. Antepartum hemorrhage. Pregnant women with hypertension and decreased consciousness Birth ball is a physical therapy ball that helps mothers inpartu when 1 position that helps the progress of labor. A physical therapy ball that helps labor progress and can be used in a variety of positions. One of the movements is to sit on the ball and sway rockingly. The fear assessment instrument is WDEQ (The Wijma Delivery Expectancy/Experience Questionnaire). Analysis of the difference test using the Independent t test.

RESULT AND DISCUSSION

Table 1.
 Characteristics of respondents (n=33)

Characteristic	f	%
Age of Respondents		
< 20 Years	14	42.4
20 – 35 Years	17	51.5
> 35 Years	2	6.1
Parity		
Primipara	16	48.5
Multiparous	17	51.5
Work		
Housewives	23	69.7
Trader/ self-employed	6	18.2
Civil servants	4	12.1
Education		
JUNIOR	8	24.2
SMA	23	69.7
College	2	6.1

Table 1 based on the results of research that has been conducted, the majority of pregnant women are depicted the most in productive age, namely 20-35 years a total of 17 people or equivalent to 51.5%, with the majority of second or multiparous pregnancy parity, as many as 17 people or 51.5%, high school education as many as 23 respondents (69.7%) and work as housewives as many as 23 respondents (69.7%).

Table 2.
 Normality test (n=33)

Result	Kolmogrov-Smirnova			Shapiro - Wilk		
	Statistics	Df	Sig	Statistics	Df	Sig
Intervention						
Pretest	,129	33	,179	,938	33	,117
Birth ball						
Posttest	,140	33	,101	,961	33	,270

All post-test Sig values in the Kolmogorov test of 0.140 and saphiro 0.270 produced > 0.05 can be concluded distributed data, so the next step is *the independent T test*

Table 3.
 Independent T Test (n=33)

Result	Independent T test					Df	Sig (2-tailed)
	Mean before	Mean after	Std error	95 Confidence Interval			
	Lower	Upper					
Pretest – Posttest Intervention	62.76	57.42	2.14	1.05	9.61	33	.015

The average fear score before the intervention was 62.76 and the average fear score after the birth ball intervention was 57.42. The results of the independent t test obtained Sig.2-tailed values of

$0.015 < 0.05$, it can be concluded that there is a relationship between birth ball intervention and reduced fear before delivery and statistically significant. This result is in line with research that reports that in labor surely every woman will feel fear, but various pharmacological and non-pharmacological ways can be used and proven to reduce fear, one of which is the use of birth balls accompanied by positive affirmations from labor helpers.(Dirgahayu, 2022)

The fear that arises in labor is mostly caused by pain and long labor time, so by providing care that can reduce pain and accelerate the duration of labor will directly reduce the feeling of fear faced by maternity mothers.(Ulfah, 2021) Fear and anxiety should be one of the focuses of handling in labor because it can make the uterine muscles stronger and harder, this mechanism makes the cervix more difficult to open. Anxiety and fear can also trigger the release of adrenaline hormones that cause the cervix to stiffen which has an impact on the slow labor process. Anxiety and fear cause irregular maternal breathing that can reduce oxygen circulation for the mother's body and fetus (Sari, 2020) Birth ball exercise is a simple body movement exercise using a ball that can be done during pregnancy, childbirth, and after childbirth, with the aim of reducing pain and can be tried to increase the emotional and psychological components of care. The use of birth balls during labor can reduce pain levels. Postural reflex stimulation and keeping the muscles and posture of the spine in good condition, in addition to reports that mothers feel more comfortable and relaxed and 95% of respondents stated that birth ball exercises can increase comfort.(Sriwenda, 2017)(Andriany, 2021)(Triwidiyantari, 2022)

The use of birth balls can help reduce pain due to contractions, reduce anxiety, speed up labor. The use of birth balls can also help maternity mothers to make position changes that can help mothers to go through the labor process effectively. The use of birth balls can enlarge the pelvic outlet by up to 30% to help facilitate the birth of the baby, with the help of gravity the birth ball can help lower the baby's head, the use of birth balls can speed up the progress of labor, effective for reducing pain when contractions occur and birth balls can provide counter pressure on the thighs and perineum of the mother when occupied.(Indrayani, 2019)(Fitria, 2021).

CONCLUSION

There was an association between birth ball intervention and decreased prenatal fear and was statistically significant

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