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HYPNOBIRTHING EFFECT ON THE LEVEL OF PAIN IN LABOR

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Abstract

Pain during labor can cause anxiety, panic and reduced ability of the uterus to contract, thereby extending time of delivery and threaten the safety of the baby. Hypnobirthing is a non-pharmacological pain management which does not have adverse effects for mother and fetus. Hypnobirthing can increase comfort, relax, reduce stress and fear during labor without loss of consciousness. The aim of this research was to determine effect of hypnobirthing on the level of pain in labor. Research was conducted in Bidan Praktik Kota Bandung. Design used was quasi experimental with One group pre and post test technique. The number of samples was 55 respondents who was given hypnosis in labor. Sampling method used was quota sampling. Data was analyzed with Mc Nemar. Result showed that there was a correlation between hypnobirthing and decreased level of pain during labor. We suggested hypnobirthing to be included in the pain management subject in the normal delivery care course and as an alternative method to reduce pain during labor.

Introductions

Labor pain could lead to the increase of adrenaline and noradrenaline hormones or epinephrine and nor epinephrine hormones that cause biochemical dysregulation of the body, resulting in physical tension in the mother. Its impact can appear on the behavior of the mother at the time of delivery. Mother becomes restless, unable to concentrate, perhaps even wanting to escape their present painful condition. This condition can cause further anxiety and tension, therefore creating a feedback cycle that can increase the emotional intensity and ultimately increase the intensity of pain (Handayani, 2014).

During contractions phase in labor, mother will experience the stress and automatically perform defensive reactions, which stimulates the release of catecholamines and adrenaline hormones. The catecholamines will be released in a high concentration during labor. If this mother can not eliminate her fear before childbirth, the body will respond with a fight or flight response. As a result of this response, the uterus becomes more tense that the flow of blood and oxygen into the muscles of the uterus is reduced because the arteries become smaller and narrower, which ultimately causes pain. On the other hand, a relaxed conditions of mother in labor could actually provoke the endorphine hormones, which is a pain reliever in the body. Relaxation exercise will stimulate the secretion of endorphine hormone at all times so it can greatly assist the delivery process (Arifin, 2012).

Oweis's previous study cited by Lally stated

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that 92% of mothers in his study experienced an unpleasant experience, including a feeling of fear (66%), prolonged labor (63%), difficult labor (66%) or very painful labor (78%) (Lally, 2008). When the mother in labor reaches the active phase, the pain sensation is more severe than the latent phase, so the mother begins to feel the pain and tries to adapt to it. Pain during labor cannot be completely eliminated, but it can be reduced by using the non-pharmacological pain management which is safer, simpler and has no adverse effects and refers to Asuhan Sayang Ibu, compared to pharmacological pain management that could potentially have adverse effects (Wayan, 2015). Hypnotherapy is one of the complementary therapies used as an alternative therapy that can be done to pregnant women without the use of pharmacological therapy (Newham, 2014).

Hypnosis or hypnotherapy in midwifery, better known as hypnobirthing, is a natural effort to build a positive intentions into the soul/ subconscious mind during pregnancy and labor preparation (Triana, 2016). The hypnobirthing method can provide mental support that positively impacts the mother's psychological state, which affects the delivery process. At the time of delivery, stress hormones, such as adrenaline, interact with beta-receptors in the uterine muscles and inhibit contractions and delay the labor that mothers in labor need to be relaxed and put in comfortable conditions. When the condition is calm and relaxed, the mother's subconscious will regulate body alignment and produce an anesthesia or natural anesthesia, called the endorphine hormone (Indriani, 2015).

Relaxation in pregnancy that is practiced physiologically will have a relaxation effect involving the parasympathetic nerves in the central nervous system. One of the parasympathetic neural functions is to decrease the production of adrenaline hormone or epinephrine (stress hormone) and increase noradrenaline hormone secretion or norepinephrine (relaxed hormone) resulting in decreased anxiety and tension in pregnant women, causing them to become more relaxed and calm so that they can sleep easily and comfortably (Wahyuni, 2013). Likewise, hypnobirthing has been proved to effectively provide comfort during labor. Mothers in labor who use the method of hypnobirthing will feel relaxed, calm, and will still be able to control herself (Indriani, 2015).

Triyani (2016), said that hypnosis had a role in reducing the anxiety level of nulliparous pregnant women in the third semester. Ulfa (2013) said that there was a difference in the mean score of labor pain between groups who used hypnobirthing and those who did not use hypnobirthing techniques. The application of hypnobirthing technique in labor process has an effect on the level of labor pain. Mothers who received hypnobirthing during labor experienced lower levels of labor pain compared to mothers who did not receive hypnobirthing during delivery (Ulfa, 2013). This study aims to determine the effect of hypnobirthing on the level of pain during labor.

Method

The study was conducted at Private Midwife Practice of Bandung city which practiced hypnobirthing. It was conducted from June to September 2014. The subjects are all mothers in labor who gave birth at the Private Midwives Practice of Bandung city which is applying hypnobirthing and who were eligible according to the inclusion and exclusion criteria.

The sample size in this research was 55 people. The inclusion criteria were: gestational age 38-42 weeks, normal single fetus, viable, fetal lie, normal delivery (active phase and cervical dilatation 5-7 cm, did not have other pain reduction medication and with a companion delivery. Exclusion criteria were: the mother has a hearing loss, active phase of pregnant women with complications, mother in labor who received other pain reliefer methods

This study design was quasi-experimental with one group pre and post test. The independent variable is hypnobirthing, while the dependent variable is the level of pain. Sampling method that we used was quota sampling where the sample is taken by determining certain characteristics until the number of quotas that have been determined. The data obtained is primary data based on the observation result of client behavior during labor by using observation sheet of pain assessment.

The procedure begins after selecting the sample according to the inclusion criteria, then the subjects will be given explanation about the purpose and procedure of the study to have their approval and they sign the informed consent sheet that has been provided by the researcher. The subjects' level of pain during contraction will be measured during the active phase, with 5-7 cm cervical dilatation by means of observation using a predetermined observation sheet. Subjects were given hypnobirthing by a trained midwife to do hypnobirthing 3 times in a row for 10 minutes. After that the level of pain of the subjects will be measured again during contraction by observation using the same observation sheet used in the first measurement.

After data were collected, data processing was performed which included: editing, scoring, testing the normality of data, and coding. We used computerized program assistance including descriptive analysis (univariate analysis) and bivariat as data analysis. Univariate analysis was used to describe the characteristics of study variables. Bivariate analysis was used to test the effect of hypnobirthing on the level of pain using Mc Nemar test. It is a form of statistical tests used to test the cohesive comparative hypothesis. The value of significance which translates to differences in pain levels before and after hypnobirthing is shown if the value of $p < 0.05$.

Result and Discussion

Table 1 shows that most respondents were aged 20-30 years old with 31 people in that age group (56.4%), respondents who were of above 30 years of age comprised of 19 people (34.5%) and respondents who were below 20 years of age comprised of 5 people (9.1%). In terms of education, most of the respondents were high school educated with a total of 43 respondents having received high school level education (78.2%). College educated respondents comprised of 6 people (10.9%), junior school educated respondents comprised of 4 people (7.3%), and elementary school educated respondents comprised of 2 people (3.6%). Respondents who were sundanese were 48 people (87.3%), Javanese 4 people (7.3%) and padangnese 3 people (5.5%). Respondents with primiparous were 34 people (61.8%),

Table 1. Distribution of Respondent Characteristics Frequency

No	Characteristics	F	%
1.	Age		
	<20 years	5	9.1
	20-30 years	31	56.4
	>30 years	19	34.5
2.	Education		
	Elementary school	2	3.6
	Junior high school	4	7.3
	Senior high school	43	78.2
	College	6	10.9
3.	Ethnic		
	Sundanese	48	87.3
	Javanese	4	7.3
	Padang	3	5.5
4.	Parity		
	Primiparous	34	61.8
	Multiparous	21	38.2
	Total	55	100

Source: Primary Data

Table 2. Distribution of Level of Pain Frequency Before and After *Hypnobirthing*

No	Variable	F	%
1.	Level of pain before Hypnobirthing		
	Severe	50	90.9
	Mild	5	9.1
2.	Level of pain after Hypnobirthing		
	Severe	12	21.8
	Mild	43	78.2
	Total	55	100

Source: Primary Data

Table 3. Relationship Between *Hypnobirthing* to Level of Pain

		Level of Pain after hypnobirthing						P
		Severe		Mild				
		N	%	N	%	N	%	
Level of pain before hypnobirthing	Severe	10	18.2	40	72.7	50	90.9	
	Mild	2	3.6	3	5.5	5	9.1	0.000
Total		12	21.8	43	78.2	55	100	

Source: Primary Data

while multiparous respondents were as much as 21 people (38.2%).

Table 2 shows that respondents with severe pain level before hypnobirthing was given were as much as 50 people (91.9%) and respondents with mild pain level before hypnobirthing were given were as much as 5 people (9.1%). Respondents with severe pain level after hypnobirthing were given were 12 people in total (21.8%) and respondents with mild pain level after hypnobirthing were given were as much as 43 people (78.2%).

Table 3 shows that most respondents had severe pain level before hypnobirthing were given and mild after hypnobirthing were given with a total number of 40 people (72.7%). Whereas respondents with severe pain levels before and after hypnobirthing were given and the level of pain remained heavy were as much as 10 people (18.2%). Respondents with mild pain level before and after hypnobirthing were given with severe pain level comprised of 2 people (3.6%). Respondents with mild pain level before and after hypnobirthing were given with mild pain level comprised of 3 people (5.5%). The results of statistical tests showed the value p = 0.000 which can be concluded that hypnobirthing had a significant effect on decreasing the pain level in labor.

In this study most of the respondents were aged 20-30 years old and had high school education level, were of Sundanese ethnicity, and were primiparous. The distribution result of the pain level frequency showed that almost all the respondents had severe pain level before hypnobirthing were given. After hypnobirthing had been given, some respondents showed that they had mild pain level. Based on the cross-table, there was a difference of pain level before and after hypnobirthing was given, where most of the respondents who had severe pain level before hypnobirthing was given turned to had a mild pain level after hypnobirthing. The result of statistical test showed that p = 0,000, so it can be assumed that hypnobirthing had a significant effect on the decreasing of mother pain level during delivery. There was a difference in the mean score of labor pain between groups of that receives hypnobirthing and the group that did not. The application of hypnobirthing technique in labor process had an effect on the level of labor pain. Mothers who receive hypnobirthing at labor resulted in lower labor pain level compared with mothers who did not receive hypnobirthing at delivery (Ulfa, 2013).

When women who were in contractions during delivery experienced stress, automatically they form a defensive reactions, thus stimulating the release of catecholamine hormones and adrenaline. The catecholamine will be released in a high concentration state during labor. If the mother can not eliminate her fear before delivery, her body will give a fight or flight response. As a result of the body's response, the uterus becomes more tense so that the flow of blood and oxygen into the muscles of the uterus is reduced, because the arteries become small and narrow, therefore causing pain. Conversely, relaxed conditions can stimulate the endorphine hormones as natural pain relieversof the body. Practicing relaxation can stimulate the secretion of endorphine at all times so it can greatly assist the delivery process. (Arifin, 2012). Labor pain causes the increase of adrenaline and noradrenaline hormones or epinephrine and norepinephrine level that cause biochemical dysregulation of the body, resulting in physical tension mothers in labor. The effect of this physiological process can arise on the behavior of the mother at the time of delivery. Mothers in labor become restless, unable to concentrate, perhaps even wanting to escape their present painful condition. This condition can cause further anxiety and tension, creating a feedback cycle that can increase the overall emotional intensity and ultimately increasing the level of pain (Handayani, 2014).

The method of hypnobirthing provide mental support that positively impacts the psychological state of the mother, which affects the delivery process. At the time of delivery, stress hormones, such as adrenaline, interact with beta-receptors in the uterine muscle and inhibit contractions and delay the labor process so that mothers in labor need relaxed and comfortable conditions. When conditions are calm and relaxed, the mother's subconscious will regulate the body's harmony and produce an anesthesia substance that is the endorphine hormone. Hypnobirthing proved effectively in giving a comfort during delivery (Indriani, 2015). If the mother is in a calm state (alpha, theta even delta), the mother's body will be physically, mentally and spiritually connected, so that the delivery process can be passed quietly, comfortably and the pain can be suppressed (Kuswandi, 2013). In line with the results of a research by Philips (2012), who said that mostly**,** women who get hypnobirthing feel more confident, relaxed, their anxiety is reduced, more focused and can better control the pain. Haniyah (2013), said that hypnobirthing is effective to decrease the anxiety level of primigravida pregnant women in facing childbirth. Likewise Fajarwati (2012), said that there was a significant influence of hypnotherapy to decrease pain in intranatal mother at stage I of labor.

Although hypnobirthing affects the decrease of pain level, in this study there were still respondents who did not experience changes in pain levels even after they had hypnobirthing procedure after which the level of their pain still remained severe, as much as 10 people (18.2%). This could be cause by the higher number of primiparous respondents than multiparous respondents, and there were still respondents aged <20 years old whose emotional condition were still not ready to undergo childbirth. According to Magfuroh's (2012) study, women who were younger than 20 years of age have higher pain intensity, this is because this age has a more intense pain sensory and the level of pain higher in primiparous women than multiparous.

This study has limitation that is the use of pre-post test one group design so that we can not compare the group of respondent which is not given hypnobirthing. In addition the sample in this study was less homogeneous e.g. in terms of age and parity, there is still a woman with aged <20 years old and a difference of parity e.g. primiparous and multiparous.

Conclusion

Based on the results of the study, it can be conclude that there is a significant effect of hypnobirthing in decreasing the level of pain in mothers in labor. From this study we expect that hypnobirthing method could be input into the topic of pain relief in normal delivery care course and hypnobirthing could be used as an alternative method for midwives in reducing the client's pain during labor.

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