

Original Article

The Relationship between Self-esteem and Anxiety with Severity of Pain and Suffering of LaborRoya Baghani¹, Masoumeh Sharifzadeh¹, Mozhdeh Navi Nezhad¹, Afsaneh Keramat², Ahmad Khosravi^{*}¹ Department of Midwifery, School of Medicine, Sabzevar University of Medical Sciences, sabzevar, Iran² Reproductive Studies and Women's Health Research Center, Shahroud University of Medical Sciences, Shahroud, Iran³ Department of Epidemiology, Center for Health Related Social and Behavioral Sciences Research, Shahroud University of Medical Sciences, Shahroud Iran

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ABSTRACT

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Key words:

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Introduction: Recognition of labor pain is a primary concern of physicians, midwives and their clients in controlling labor pain and preventing the resulting suffering. The purpose of this study was to assess the relationship between self-esteem and anxiety with severity of pain and suffering of labor in women.

Method: This cross-sectional study was conducted on 365 mothers who experienced delivery at Shahidan Mobini hospital in Sabzevar in 2014. The data were collected using Rosenberg Self-esteem questionnaire and Spielberger State-Trait Anxiety scales, visual analogue scale (VAS) for pain, and experience and perception of suffering. Data were analyzed using t-test, Pearson correlation coefficient and chi-square test considering level of significance equal to 0.05.

Results: The mean age was 26.4 ± 4.7 years old. In this study, 119 (44.9%) samples were nulliparous, 20 (7.5%) were employed and 196 (74%) were urban citizens. There was no significant difference between the pain of labor score in terms of self-esteem levels ($p=0.84$) and the level of covert anxiety ($p=0.15$) and overt anxiety ($p=0.06$). However, there was a significant differences between the suffering of labor scores in terms of self-esteem levels ($p<0.001$), the covert anxiety levels ($p<0.001$) and the overt anxiety levels ($p<0.05$).

Conclusion: Considering pregnant women with higher self-esteem and lower anxiety score had a lower score on labor suffering in this study, it seems health care providers can help reduce pregnant women's suffering of labor through strengthening the well-being and health of pregnant women and supporting them during pregnancy and labor.

Introduction

Childbirth is a natural and physiological process, but one of the most important issues that still occupies the mind of every pregnant woman is labor pain and the fear from it (1). Controlling labor pain and preventing the suffering from it is one of the most vital concerns of pregnant mothers (2). Severe, prolonged and uncontrolled pain can cause an emotional imbalance and, in the long run, cause mental distress in the mother(3). Hoshmandi et

al in their study revealed per se that various factors such as the type of hospital, environmental factors, treatment and care, anxiety and fear of delivery affect the severity of labor pain(4). The most common reason for choosing cesarean section is the fear of labor pain(5).

Women with greater fear of childbirth are less confident, and increased confidence during pregnancy can reduce the fear of childbirth(6). Several studies show a negative relationship between self-esteem and stress (12-14). Self-

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esteem is one of the important psychological factors influencing health and quality of life. Self-esteem is the feeling of satisfaction and worthiness of each person towards him/herself and their performance(7). Low self-esteem causes higher vulnerability, psychological disorders such as anger, rage, depression, stress, anxiety and interpersonal disorders in individuals (7, 8). High levels of anxiety and depression and low levels of self-esteem lead to chronic anxiety and can cause adverse effects and complications of pregnancy, including early delivery and postpartum depression(7). Various studies have been done to increase self-esteem in different groups. Life skills training, problem-solving skills, group therapy, exercise, and self-expression skills, etc. are proposed to increase self-esteem in different people (9, 10).

Aim: It is also possible to support the mother during delivery by higher adaption to the new conditions and adjustment to the labor pain. The main aim of this study is to assess the relationship between self-esteem and anxiety with severity of pain and suffering of labor in women.

Method

This cross-sectional study was performed on 265 mothers who experienced delivery at Shahidan Mobini hospital in Sabzevar in 2014. Sampling was done in postpartum ward. Response rate was 0.94. The protocol of this study was approved by research council of Shahroud University of Medical Sciences. According to previous study of Dolatian (12), the prevalence of high self-esteem and stress level over medium were 0.34 and 0.64, respectively. With minimum error estimation of 0.08 and confidence interval of 0.95 and type 2 errors of 0.2, sample size was estimated 283.

After obtaining informed consent and establishing a proper relationship with the mothers conforming to the inclusion and exclusion criteria of the research, the questionnaire was completed through interviewing them by a qualified midwife. The questionnaire was completed during the first

24-hour post-delivery time under the condition that she would be able to answer the questions.

inclusion criteria: all mothers with single pregnancy, normal vaginal delivery, gestational age 37 to 42 weeks and maternal age between 18 and 35 years were invited for interview., Use of any analgesic drugs before and during labor, fast or prolonged delivery, severe bleeding in labor and delivery and unwillingness were main exclusion criteria.

Measurements:

The data collection instruments included demographic and midwifery check list, Rosenberg's standard self-esteem questionnaire with 10 items, and Spielberger's state-trait anxiety scale with 40 items, and experience and perception of suffering scale. The severity of labor pain was measured by Visual Analogue Scale (VAS).

In this study mother's age (year), education experience years (year), occupation (employed/ housewife), place of residence (rural/ urban), number of deliveries and abortions, gestational age (per weeks), weight of the newborn, were measured as independent variables. The severity of labor pain is determined by the visual analogue scale (VAS) and interview. The visual analogue scale is scored from zero to 10. Labor pain, in the fourth stage of delivery, is measured after explanation about the differentiation of labor pain with the pain associated with episiotomy and the description of the pain of different stages of delivery. The Rosenberg self-esteem scale has 10 items scored -1 or +1. In this scale +10 score indicates high self-esteem and -10 shows low self-esteem. In other studies, its reliability was reported 0.71 and 0.85 using Cronbach's alpha coefficient (5, 11). Spielberger's anxiety measurement scale has been used in many studies to measure labor anxiety. It is comprised of 40 items that measure the overt (state) and covert (trait) anxiety. There is 'too low', 'low', 'high', and 'too high' for each item. The value of options is between 1 and 4. An anxiety level were classified as Mild anxiety (score 20-29), relatively mild anxiety (score 30

to 49), relatively severe anxiety (score 50 to 69), severe anxiety (score 70 to 80). In Iran, the validity of Persian version of questionnaire has been validated by Mahram. The reliability of this questionnaire was calculated using Cronbach's alpha to be 0.88 (12).

The Scale of Experience and Perception of Suffering was designed by Schuls *et al.* in 2010. It consists of three dimensions. The physical dimension consists of 9 items, and the subject identifies their answer based on the Likert scale from 'always' to 'never'. The psychological dimension is measured with 15 items by answering from 'too high' to 'too low'. The existential dimension is comprised of 9 items based on a Likert scale of 5 grades from 'too low' to 'too high'. The reliability of the questionnaire was calculated 0.6 in a study conducted in Iran (13, 14).

Statistical analysis:

The continuous data were presented using mean and SD and qualitative data were presented by frequency and percent. Mean comparison of suffering dimensions between level of anxiety and self-esteem was done using ANOVA. Significant level was less than 0.05.

Results

The mean age of the participants was 26.0 ± 4.7 with a range of 18 to 35 years. Their mean marriage age was 13.6 ± 9.3 years. Average education of women participating in the study was 10.4 ± 3.6 and that of their spouses was 8.7 ± 4.4 . In this study 196 people (74%) were urban citizens and 20 (7.5%) were employed. Also, 119 people (44.9%) were primiparous and the rest were multiparous. The mean and the standard deviation of labor pain in the participating women were 7.7 ± 2.6 . Mean and the standard deviation of their self-esteem were 5.9 ± 3.9 . Mean and the standard deviation of participants' overt anxiety were respectively 37.5 ± 9.1 , and those of their covert anxiety were 38.5 ± 9.2 , respectively. The mean score of participants' physical suffering was 13.3 ± 7.5 , 14.0 ± 6.3 for their psychological suffering, and 11.5 ± 4.6 for their existential suffering. With the increase in education, the severity of pain

increased. Also, the severity of pain and suffering in women who have had the first experience of labor was greater. However, there was no difference between the severity of labor pain and suffering mean in terms of occupation and the place of residence. The severity of the pain and suffering score based on the demographic data is illustrated in Table 1 and 2.

We observed a significant relationship between self-esteem and labor suffering scores, so that with increasing self-esteem level, suffering scores decreased (Table 3). As well, there was a significant difference between suffering score of labor in terms of anxiety levels. In this way, at the high level of overt and covert anxiety, the score of suffering of labor increased in three areas of physical, mental and existential ($p < 0.001$) (Tables 3).

There was no statistically significant difference between labor pain scores in overt anxiety levels ($p = 0.065$) and covert anxiety levels ($p = 0.15$). Also, there was no significant difference between labor pain scores in terms of self-esteem levels ($p = 0.84$).

Discussion:

The present study was conducted to investigate the relationship between self-esteem and anxiety with severity of labor pain and suffering from delivery. Our results showed that the severity of perceived pain and suffering was higher in the primiparous women. Also, with the increase in the education levels of women, their perception of pain increased accordingly. Women who experience childbirth for the first time may not have realistic expectations regarding normal delivery and, when confronted with the reality of childbirth, lose personal control and request cesarean section (15). Concomitant with our results, Kamali Fard reported that there was a significant correlation between fear and anxiety of childbirth and pain labor in primiparous women (16). A study in Canada demonstrated that primiparous women, in comparison with the multiparous ones, experienced greater labor pain during childbirth (17). Houshmandi and Pirdel report that the severity of pain in

primiparous and multiparous women is not different(4). One of the important psychological factors affecting labor pain is the fear of delivery(4). Similar studies did not show a significant relationship between education level, maternal age and occupation and the fear of delivery(18, 19). Akhlaghi *et. al* also stated that there was no significant relationship between depression, self-esteem, education level, and income rate and the fear of childbirth, but there was a significant and negative relationship between the level of women's awareness of delivery and fear of childbirth; that is, women who had a high level of awareness had less fear of giving birth(11). Our study showed that with the increase in the education level, individuals were more likely to understand pain. Although increased education and awareness of the delivery process reduces an individual's fears, it does not affect the severity of perceived pain, which is a psychological process, similarly.

Akhlaghi *et. al* also identified pain as one of the causes of the fear of childbirth, and did not report a significant relationship between the fear of delivery and women's self-esteem in their study (11). As a justification to these results, it is necessary to pay attention to the meaning of pain and suffering. Control of labor pain and its resulting suffering is one of the important concerns of doctors and patients(21).

Pain is an unpleasant feeling and the manifestation of the excitement originated by tissue damage and is expressive of experience. Therefore, it is reported by the very individual and is influenced by experience, expectations and even individual culture. Factors such as cultural, social, psychological, environmental and mental effects can affect the perception of labor pain in a woman(4). Different methods which have been used in various studies such as massage therapy, aroma therapy, acupuncture, exfoliation, etc. reduce the delivering woman's concentration and would lead to the pain to be alleviated (21). Suffering refers to the perception of a threat to individual integrity, the inability to deal with this threat, the tiredness of mental, social and personal resources for

coping (22). Suffering is considered as the experience and perception of an individual rather than their merely physical and bodily experience.

Suffering sources include safety threats to an individual as a complex social and mental entity (23). Suffering occurs when there is a difference between self-perception and the ongoing event (24).

Our results did not show any correlation between labor pain and anxiety. In line with our study, Salari *et Al.* also reported no significant relationship between pain and the overt anxiety of the mother in the first stage of labor (25). However, Lung *et. al* observed a significant correlation between pain (based on McGill Pain Questionnaire) and overt anxiety during labor (26). The reason for this difference can be attributed to timing of anxiety measurement and the type of instrument used.

Also, there was a significant relationship between anxiety and suffering in the current study. In this way, with the increase in overt and covert anxiety, the suffering of childbirth increased in three areas of physical, mental and existential. When individuals are in a situation where they have no strength and cannot make their way out of it, they are susceptible to depression. It seems that an individual's reaction to stress is different from others' in their approach to stressful events, and the important point in the recognition of stress and tension, is not its severity, but it is an individual's specific response to it(27). Vatan Parast *et. al* also held that there was a significant relationship between depression and anxiety(28). It was observed in our study that with the increase in self-esteem, the severity of overt and covert anxiety decreased. Individuals with different levels of self-esteem are different in terms of perceived stress, so that whenever a person's self-esteem is higher, the amount of stress that they understand will be reduced(7). Self-esteem is harmoniously organized with a wide range of physical and mental branches and has a significant and important role in guarding people against the experiences of anxiety and threats and improving their ability to deal with

stressors(29). Self-esteem is a key mental factor, and low self-esteem can have harmful effects on women's experiences of pregnancy and affect the various outcomes of pregnancy(7).

Conclusion:

The results revealed that mental factors such as self-esteem and anxiety cannot reduce the severity of physiological pain, but they can be a mental cause. Considering pregnant women with higher self-esteem and lower anxiety score had a lower score on labor suffering in this study, it seems health care providers can help reduce pregnant women's suffering of labor through strengthening the well-being and health of pregnant women and supporting them during pregnancy and labor.

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Conflict of Interests: None

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Table 1: Comparison of labor pain intensity in terms of demographic variables

Variables	Pain Mean±SD	P value
Education		
1 to 8 years	7.24±3.36	0.035*
9 to 12 years	7.98±2.1	
Over 12 years	8.08±2.25	
Place of Residence		
Urban	7.80±2.57	0.132
Rural	7.62±2.96	
Occupation		
Employed	8.01±1.99	0.141
Housewife	7.73±2.71	
Parity		
Primiparous	8.42±2.46	*p<0.001
Multiparous	7.17±2.73	

Table 2: Comparison of Suffering in terms of demographic variables

Variables	Suffering Mean±SD		
Education	Physical suffering	Mental suffering	Existential suffering
1 to 8 years	12.0±7.27	12.86±6.8	10.80±4.57
9 to 12 years	13.76±7.7	14.71±6.3	11.75±4.5
Over 12 years	13.98±7.1	14.26±5.4	12.19±4.5
P value	0.17	0.10	0.15
Place of Residence			
Urban	13.60±7.46	14.22±6.05	11.58±4.55
Rural	12.45±7.45	13.42±7.05	11.41±4.63
P value	0.27	0.37	0.87
Occupation			
Employed	11.57±6.5	12.42±4.6	12.10±3.6
Housewife	13.44±7.5	14.14±6.4	11.49±4.6
P value	0.29	0.25	0.57
Parity			
Primiparous	14.43±7.55	15.00±6.89	11.93±4.60
Multiparous	12.39±7.28	13.21±5.72	11.21±4.52
P value	0.02*	0.02*	0.20

Table 3: comparison of mean of suffering dimensions in terms of self-esteem and anxiety

Variables		Physical suffering		Mental suffering		Existential suffering	
		Mean	SD	Mean	SD	Mean	SD
Self-esteem							
	Very High Self-esteem	10.63	7.44	11.76	4.54	10.58	3.39
	High Self-esteem	14.27	7.50	15.04	6.28	12.16	4.96
	Low Self-esteem	15.53	7.26	18.46	10.64	13.28	4.33
P value		P<0.001		P<0.001		p=0.002	
Overt Anxiety							
	Relatively Severe	10.9	6.86	10.78	6.31	8.86	3.83
	Relatively Mild	13.48	7.35	14.21	5.40	11.97	4.46
	Mild	17.75	7.95	20.40	9.14	14.10	4.51
P value		0.002		P<0.001		P<0.001	
Covert Anxiety							
	Mild	10.13	6.50	10.86	6.91	8.63	4.06
	Relatively Mild	12.78	6.91	14.02	5.31	11.92	4.33
	Relatively Severe	20.50	8.96	20.88	8.6	14.79	4.41
	Severe	13.34	7.64	14.41	6.63	11.81	4.58
P value		P<0.001		P<0.001		P<0.001	