



# Investigating the Relationship Between the Perception of Labor Pain and the Number of Deliveries

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## ABSTRACT

**Background & Objective:** Because childbirth is a natural process, pain is therefore part of the process. The amount of labor pain is probably directly related to the pregnant woman's mood, familiarity, awareness and self-confidence. Therefore, it is illogical to accept the complications of surgery and anesthesia and harm to the baby in order to escape the pain. Therefore, the aim of current study was investigating the relationship between the perception of labor pain and the number of deliveries.

**Materials & Methods:** This study is descriptive-analytical correlational study. Two questionnaires were used for gathering information: one on personality traits and the other on labor pain. One hundred participants were chosen according to their demographic information, from a pool of pregnant women at maternal ward of the Persian Gulf Hospital in Bandar Abbas City, Iran. The data was analyzed by means of descriptive\_ analytical measures such as Pearson Factor.

**Results:** The mean age of women was 27.15±4.6. Collected data showed that 31% of women were gravida 1, 33% gravida 2, 15% gravida 3, 10% gravida 4, 5% gravida 5, 4% gravida 6, and 2% were gravida 7. a significant relationship was found between pain in the first delivery and pain in the second, third, fifth and sixth deliveries, so that the pain in the first delivery was more than the pain in the second, third, fifth and sixth deliveries.

**Conclusion:** According to the results of this study the severity of labor pain in primiparous and multiparous women was not statistically significant and the intensity of reported pain level was high in all mothers.

**Keywords:** Labor pain, Number of deliveries, Primiparous



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## Introduction

Childbirth is a natural process and an exciting, important and at the same time painful event in a woman's life (1). Childbirth pain is experienced in women with different intensities (2). In fact, many factors including physiological, cultural, social, environmental and factors, are effective in perceiving this pain (3). The mother's experience of childbirth has important effects on the lives of mother and baby (4) A good delivery experience can affect the good relationship between mother and baby, and on the other hand, fear and anxiety before and during the delivery process is associated with a high risk of fetal distress and the need for more therapeutic interventions (5, 6). Also, the unpleasant events of childbirth can have

adverse psychological effects on the mother and consequently on the baby (7). Given that pain is part of the natural process of childbirth, understanding the nature of labor pain and the factors affecting the perception of this pain and managing the factors affecting it is very important (8). Childbirth pain is a complex individual and multidimensional experience, and is one of the most intense pains ever experienced by humans, so much so that it is compared to the pain caused by amputation of fingers (9, 10). Studies have shown that severe labor pains can upset a mother and impair her mental health (11), and as a result, negatively affect her relationship with her husband and children (12, 13). In addition, labor pains can lead to

fear, lack of confidence, and anxiety of the mother about the next pregnancy (14-17). According to studies, the most important factors influencing labor pain are maternal anxiety, fear of labor pain, and a sense of physical and psychological control during labor, worries about self and baby, and maternal expectations about labor and pain. It pointed to the unpreparedness for childbirth, and the lack of trust and confidence in the staff of the maternity ward (18, 19). However, studies in different countries have yielded different results and there is still little information about the causes of labor pain. Also, there seems to be differences in the severity of labor pain and the factors affecting it between primiparous and multiparous women. Research shows that labor pains are more severe and longer in nulliparous women. In this regard, it has been found that about 51% of multiparous women and 81% of primiparous women suffer from severe and unbearable pain during childbirth, and the pain does not decrease even after receiving analgesic drugs in the labor phase (20-22). Because childbirth is a natural process, pain is therefore part of the process. The amount of labor pain is probably directly related to the pregnant woman's mood, familiarity, awareness and self-confidence. Therefore, it is illogical to accept the complications of surgery and anesthesia, and harm to the baby in order to escape the pain (23, 24). Therefore, the aim of current study was investigating the relationship between the perception of labor pain and the number of deliveries.

## Methods

The current study is a descriptive-analytical correlational study. The statistical population of current study included term pregnant women with singleton pregnancy who were referred to the maternity ward of Bandar Abbas Persian Gulf Hospital in August and September 2017 for vaginal delivery in August and September 2017.

Criteria for inclusion in the study: normal and uncomplicated delivery, singleton pregnancies, the

appearance of peaks, primiparous or multiple births. Women were excluded from the study by refusing to participate in the study. VAS pain questionnaire, and the researcher-made pack list containing questions about patients' demographic variables (Age, education, number of deliveries, willing or unwilling pregnancies, sex of infant, place of residence, presence of physical or mental discomfort in pregnancy, death of spouse, divorce, and history of infertility) during the 72 hours after the delivery were used. A total of 100 women were included in the study according to the inclusion criteria.

The visual analog scale (VAS) is a tool widely used to measure pain. A patient is asked to indicate his/her perceived pain intensity (most commonly) along a 100 mm horizontal line, and this rating is then measured from the left edge (=VAS score) (25).

Data were analyzed using SPSS. v23 (IBM, USA) software and descriptive statistics such as mean, standard deviation, frequency and Pearson correlation coefficient were used and multiple regression analysis was used to answer the research questions.

## Results

The mean age of women was  $27.15 \pm 4.6$  and they did not mention any history of hospitalization during pregnancy. Table 1 showed demographic information of research participants. The mean score of perceived pain during childbirth was 8.99.

Collected data showed that 31% of women were gravida 1, 33% gravida 2, 15% gravida 3, 10% gravida 4, 5% gravida 5, 4% gravida 6 and 2% were gravida 7 (Table 2).

According to Table 3, a significant relationship was found between pain in the first delivery and pain in the second, third, fifth and sixth deliveries, so that the pain in the first delivery was more than the pain in the second, third, fifth and sixth deliveries.

**Table 1. Demographic information of research participants**

Variable	Result	
Age	27.15±4.6	
baby gender	Boy	41%
	Girl	59%
History of infertility	23%	
wanted pregnancy	85%	
Disease in pregnancy	Sickle cell	3%
	hypothyroid	5%
	hyperthyroid	2%
	Hyperemesis gravidarum	6%

Variable	Result
spouse presence	86%
Divorce	0%
Death of a Spouse	2%
assisted reproduction	9%

**Table2.** Frequency of women based on the number of deliveries

gravida	Percentage
1	31
2	33
3	15
4	10
5	5
6	4
7	2

**Table 3.** Significant coefficients of pain in the first delivery compared to subsequent deliveries

Variable		p-value	Mean Difference
Pain in the first delivery	Second	0.010	0.706
	Third	0.001	1.178
	Fourth	0.104	0.645
	Fifth	0.007	1.445
	sixth	0.000	2.395
	Seventh	0.415	0.645

According to [Table 4](#), pain in the second delivery was only perceived more than pain in the sixth delivery.

**Table 4.** Significant coefficients of pain in the Second delivery compared to subsequent deliveries

Variable		p-value	Mean Difference
Pain in the Second delivery	first	0.010	-0.706
	Third	0.163	0.473
	Fourth	0.877	-0.061
	Fifth	0.157	0.739
	sixth	0.004	1.689
	Seventh	0.939	-0.61

Pain in the third delivery is significantly higher than pain in the first and sixth deliveries, while there is no significant relationship between pain in the third delivery and pain in other deliveries. Pain in the fourth childbirth is significantly less than pain in the first childbirth and more than pain in the sixth childbirth; However, no significant relationship was found

between pain in the fourth delivery and second, third, fifth and seventh deliveries. Only a significant relationship was found between the pain of the fifth delivery and the pain of the first delivery; So that the pain in the fifth delivery is significantly less than the pain in the first delivery; while no relationship was found with pain in other deliveries. Comparing the

amount of pain in the sixth delivery with the pain in other deliveries, it seems that there is a significant positive relationship between pain in the sixth delivery and pain in the first, second, third and fourth deliveries,

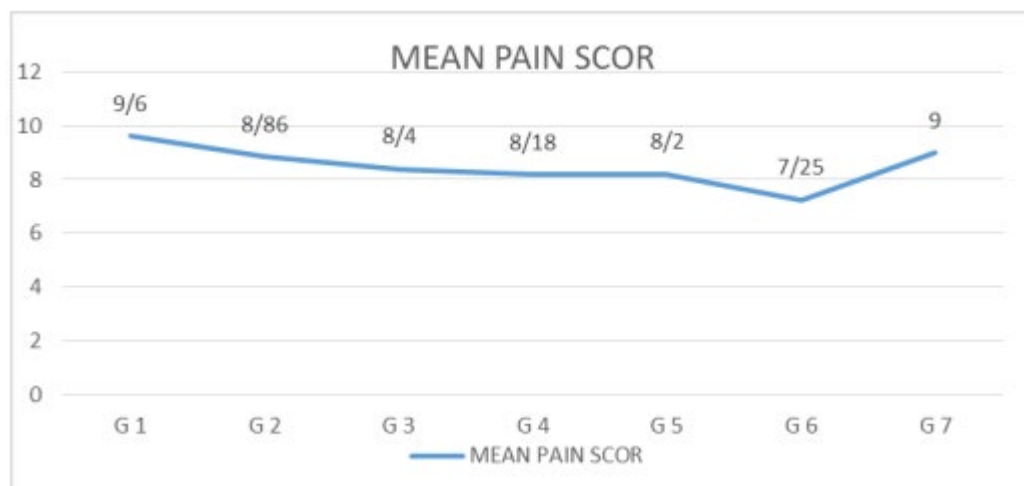
so that with increasing number of deliveries, pain was less perceived, however, no significant relationship was found with the fifth and seventh deliveries (Table 5).

**Table 5. Significant coefficients of pain in the third-sixth delivery compared to subsequent deliveries**

Variable		p-value	Mean Difference
Pain in the second delivery	first	0.010	-0.706
	Third	0.163	0.473
	Fourth	0.877	-0.061
	Fifth	0.157	0.739
	sixth	0.004	1.689
	Seventh	0.939	-0.61
Pain in the third delivery	Fourth	0.229	-0.533
	Fifth	0.633	0.267
	sixth	0.048	1.12
	Seventh	0.513	-0.53
Pain in the fourth delivery	Fifth	0.179	0.8
	sixth	0.007	1.75
	Seventh	1.000	0.00
Pain in the fifth delivery	sixth	0.193	0.95
	Seventh	0.378	-0.800
Pain in the sixth delivery	Seventh	0.064	-1.75

The chart below compares the average perceived pain in women with different number of deliveries. Pain in the first delivery was 9.6, in the second delivery

8.86, in the third delivery 8.4, in the fourth delivery 8.18, in the fifth delivery 8.2, in the sixth delivery 7.25 and in the seventh delivery 9.



**Chart 1. Mean pain perceived in women with different number of deliveries**

**Discussion**

The aim of current study was investigating the relationship between the perception of labor pain and

the number of deliveries. One of the factors influencing labor pain is the fear of childbirth, which is more

evident in primiparous mothers (26). Areskog et al., found that about 21% of women suffer from mild fear, and 5% from severe fear of childbirth. Fear of Delivery increases the pain of labor and at the same time is an important factor in creating a negative experience in the mother towards her delivery (27). Kamalifard et al., reported there was no significant relationship between fear and anxiety about childbirth and pain in nulliparous women, but in multiparous women there was a significant relationship between fear and anxiety about childbirth and pain (28). One of the important psychological factors affecting labor pain is fear and lack of awareness of labor. When scared, the body produces a hormone that intensifies the pain. If fear can be controlled, labor pains not only will not be excruciating but also pleasurable.

In the present study, there was no absolute relationship between pain perception and the number of deliveries. But in most cases, as the number of deliveries increased, the perceived pain decreased. Yadollahi et al., Fridh et al., Johnstone et al., and Kariman et al., a significant positive relationship was found between the number of deliveries and pain perception (29-32). While the results of the study of Saisto et al. showed that the severity of labor pain is not related to the number of deliveries (33). The results of Hoshmandi et al., study showed that the type of hospital, environmental factors, treatment and care, and fear and anxiety of childbirth are the predictors of patients' pain intensity (34). The relationship between fear, anxiety and environmental therapeutic factors of care and pain was not significant in primiparous unlike

multiparous and the relationship between support level and pain in primiparous was significant. Although data collection was performed after the mother recovered and at least 24 hours after delivery, but in some cases, especially in women, one of the main problems in the field of care and maintenance of the baby is the possibility of cooperation from the mother.

## Conclusion

According to the results of this study the severity of labor pain in primiparous and multiparous women was not statistically significant and the intensity of pain level reported was high in all mothers. It is hoped that by following the results of this study and conducting more research in the future, care planning can be done in a desirable way to reduce labor pain and gain a desirable and satisfactory experience of childbirth by the mother.

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## Conflict of Interest

None.

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