การสนับสนุนทางการพยาบาลและความพึงพอใจในระยะคลอดของมารดาครรภ์แรกชาวบังคลาเทศ

Nursing Support and Satisfaction During Labor Among Bangladeshi Primiparous Mothers

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บทคัดย่อ

การคลอดนำมาซึ่งประสบการณ์ที่สุขใจและเป็นเหตุการณ์ที่น่ายินดีในระดับสากล แต่ในอีกด้าน การคลอดก็ยังเป็นประสบการณ์ที่น่าหวาดหวั่นสำหรับมารดาโดยเฉพาะมารดาครรภ์แรก การศึกษาเชิงพรรณาหาความสัมพันธ์นี้มีวัตถุประสงค์เพื่อศึกษาการรับรู้การสนับสนุนทางการพยาบาลและความพึงพอใจในระยะคลอดของมารดาครรภ์แรกชาวบังคลาเทศ เก็บข้อมูลจากมารดาครรภ์แรก จำนวน 82 คน ที่โรงพยาบาลทั่วไประดับทุติยภูมิในภาคใต้ของบังคลาเทศ ระหว่างเดือนเมษายนถึงพฤษภาคม 2558 โดยใช้แบบสอบถามการสนับสนุนทางการพยาบาล (BANSILQ) ของไบรแอนตันและคณะ (1994) และแบบสอบถามความพึงพอใจในระยะคลอด (BSS-R) ของมาร์ตินและคณะ (2014) ค่าความเชื่อมั่นครอนบาค แอลฟ่า เท่ากับ 0.81 และ 0.82 ตามลำดับ วิเคราะห์ข้อมูลผ่านโปรแกรม SPSS เวอร์ชั่น 13.0 โดยใช้สถิติเชิงพรรณนาและสถิติสัมประสิทธิ์สหสัมพันธ์เพียร์สันโปรดักโมเมนต์

ผลการศึกษา พบว่ามารดาครรภ์แรกมีการรับรู้การสนับสนุนทางการพยาบาลอยู่ในระดับปานกลาง ($\bar{X}$ = 85.28, S.D. = 6.88) และ ความพึงพอใจในระยะคลอดอยู่ในระดับปานกลาง ($\bar{X}$ = 32.22, S.D. = 2.31) การสนับสนุนทางการพยาบาลและความพึงพอใจในระยะคลอดไม่มีความสัมพันธ์กัน ผลการศึกษามีข้อเสนอแนะว่า ผู้ที่มีส่วนรับผิดชอบของโรงพยาบาลและพยาบาลควรได้ตระหนักถึงบทบาทในการสนับสนุนทางการพยาบาลที่มีคุณภาพเพื่อพัฒนาความพึงพอใจในระยะคลอดของมารดา

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Abstract

Childbirth is a highly joyful experience and a universally celebrated event. On the other hand, it is a frightening experience for many mothers, especially primiparous mothers. This descriptive study aimed to examine Bangladeshi primiparous mothers' perceived nursing support and satisfaction during labor. Data were collected among 82 primiparous mothers from a general secondary hospital in Southern part of Bangladesh, April to May, 2015, by using the Bryanton Adaption of the Nurses Support in Labor Questionnaire [BANSILQ] (Bryanton et al., 1994) and the Birth Satisfaction Scale Revised [BSS-R] (Martin & Martin, 2014). The internal consistency reliability of this questionnaire was found, and Cronbach's alpha coefficients of .81 and .82 were measured, respectively. The data were analyzed by using descriptive and Pearson product moment correlational statistics via SPSS version 13.0.

The study results showed that primiparous mothers perceived a moderate level of nursing support ($\bar{x}$ = 85.28, S.D. = 6.88) and a moderate level of satisfaction during labor ($\bar{x}$ = 32.22, S.D. = 2.31). There was no correlation between nursing support and satisfaction during labor. These findings suggest that hospital authorities and nurses should be concerned the role to provide quality nursing support and to improve their satisfaction during labor.

Key words: Nursing support, Satisfaction during labor, Primiparous mothers

Background and Significance

In human reproduction, childbirth is a highly joyful experience and a universally celebrated event. On the other hand, it is a frightening experience for many mothers due to labor pain, which is the result of uterine contractions (Vivilaki & Antaniou, 2009). The process of labor is divided into four stages. The first stage of labor normally begins with the onset of regular uterine contractions and ends with complete or full cervical effacement and cervical dilation (Cunningham, Levenc, & Bloom, 2014). The second stage of labor begins with complete or full cervical dilation and ends with the birth of the baby. The third stage of labor begins with the completed birth of the baby and ends with the expulsion of the placenta. The fourth stage is the period of observation for complications within the first two hours after birth (Perry et al., 2012).

In the labor process, the first stage is usually the longest and the hardest part of labor (Cunningham, Levenc & Bloom, 2014). When pregnant women are admitted to the hospital, they may feel a sense of isolation that can increase maternal anxiety and stress. Evidence has shown a cyclic and upward spiraling relationship of fear, tension, and pain (Dick-Read, 2005). For the primiparous mother who lacks knowledge, fear of labour, growing tension and anxieties will lead to increased labor pain during labor. Primiparous mothers are women who

have not experienced labor and delivery. They generally feel more psychological stress, become more emotionally upset, and have a lower ability to tolerate pain compared to multiparous mothers (Page & Candish, 2006). There are many negative consequences for primiparous mothers who are intensely stressed and are unable to cope with labor pain. Extreme anxiety increases an endogenous release of catecholamine, which decreases blood flow to and from the uterus and placenta, restricts fetal oxygen supply and waste removal, decreases the effectiveness of uterine contractions, and slows labor progress (Johnson & Slade, 2003). These may negatively influence primiparous mothers' satisfaction.

Satisfaction refers to the perceptions of primiparous mothers of their birth experience (Martin & Martin, 2014). It includes stress experienced during labor, women's personal attributes, and quality of care provision (Martin & Fleming, 2011). Satisfaction is negatively influenced by stress. High levels of stress increase dissatisfaction, and low levels of stress increase satisfaction (Martin & Martin, 2014). Stress during labor can be reduced. Srisuthisak (2009) stated that the reduction of stress positively relates to a positive childbirth. Primiparous mothers who have experienced less labor pain have reported higher levels of birth satisfaction compared with mothers with more labor pain (Waldenstrom, 1999). Higher levels of personal control have been shown to be related to greater satisfaction during labor (Lavender, Walkinshaw, & Walton, 1999). Satisfaction during labor is also linked to quality of care provision and supportive behaviors. Quality of care provision is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes, consistent with current professional knowledge (Lohr, 1990). Supportive behaviors comprise the presence of the nurse, the nurse's acceptance of the laboring client as a unique individual with particular needs, respect for the mother's birth plan, emotional support, and instructional information regarding labor.

Nursing support refers to nursing activities that primiparous mothers receive from nurses including emotional support, informational support, and tangible support during the first stage of labor (Bryanton, Fraser-Davey, & Sullivan, 1994).

Emotional support is the ability to subjectively participate and share in the laboring mother's feelings such as being present, demonstrating an effective caring attitude, having positive and calming verbal expressions and non-verbal expressions, providing distraction, and using humor.

Informational support is the procedure of exchanging information to meet the learning and knowledge needs of the laboring mother, which includes listening to the mother's views, instruction on breathing and relaxation, as well as information about routines, procedures and progress (Bryanton et al., 1994).

Tangible support is the performance of tasks to meet physical needs of the laboring mother, which includes environmental control, encouragement of different positions and mobilisation, touch, massage, application of hot and cold packs, hygiene, hydrotherapy, promotion of urinary elimination, and

nourishment (Bryanton et al., 1994).

Nursing support can increase perceived control by women during childbirth (Langer, Campero, Garcia, & Reynoso, 1998; Wolman, Chalmers, Hofmeyr, & Nikoderm, 1993), and lower anxiety scores (Wolman et al., 1993). Nursing support has many beneficial effects on childbirth outcomes. Specifically, physical and emotional support from nurses during labor is associated with optimal intrapartum outcomes (Adams & Bianchi, 2008). Primiparous mothers that receive nursing support are less likely to have artificial rupture of membranes, oxytocin stimulation, and forceps and vacuum births (Hodnett, Gates, Hofmeyr, & Sakala, 2009; Klaus, Kennell, Robertson & Sosa, 1986; Lederman, 1995$_a$).

Nursing support increases mothers' satisfaction with the birthing process by improving their ability to cope during labor (Wolman, et al., 1993). In addition, supported primiparous mothers experience less pain (Hofmeyr, Nikodem, Wolman, Chalmers, & Kramer, 1991), lower states of anxiety, and less depression postpartum (Wolman et al., 1993). Primiparous mothers who are supported during labor also have lower or normal epinephrine levels, providing the best possible blood flow to the uterus and fetus (Lederman, 1995). Nursing support reduces fear, tension, and pain (Dick-Read, 2005). As a result, less fear leads to less tension; this, in turn, leads to less labor pain. Low perception of pain reduces the release of catecholamines, thus strengthening uterine contractions and shortening the duration of active labor (Johnson & Slade, 2003). Other studies have also shown that nursing support contributes to satisfaction during labor (Hussein, 2011).

Although the results from the limited studies reviewed provide direction for increasing satisfaction during labor with nursing support, it might not be able to be generalized for Bangladeshi mothers, particularly primiparous mothers, because of variations in obstetric practice, hospital facilities such as nursing shortage, and culture. In Bangladesh, most births are home delivery, followed by the hospital. Moreover, a primiparous mother's husband is not allowed to enter the labor unit, unlike other countries such as Thailand. However, female relatives such as mothers or mother-in-laws are allowed to stay with a primiparous mother until the labor process is finished. Primiparous mothers mostly depend on nurses and their relatives for support. The nursing shortage in Bangladesh might affect the nursing support given to mothers, in terms of insufficiency and ineffectiveness. As a result, this study regarding nursing support and satisfaction during labor in a Bangladesh was needed. The results can guide the development of proper intervention programs to improve nursing support for primiparous mothers and increase satisfaction during labor.

Research Objectives

This study aimed to investigate primiparous mothers' perceived nursing support and satisfaction during labor, and the relationship between nursing support and satisfaction during labor.

Research Question

What is the relationship between nursing support and satisfaction during labor among Bangladeshi primiparous mothers?

Conceptual Framework

This study's conceptual framework was formed based on two concepts including nursing support and satisfaction during labor. It was based on Bryanton's (1994) concept of nursing support. Nursing support comprises three dimensions; emotional, informational, and tangible support. As for satisfaction during labor, the Martin and Martin (2014) concept was utilized, where satisfaction during labor is composed of stress experienced during labor, women's personal attributes, and quality of care provision. The relationship between these two concepts can be positive, when higher levels of nursing support are received and greater satisfaction during labor is achieved.

Methodology

Population and Sample

The population of this study comprised of Bangladeshi primiparous mothers. The sample was 82 primiparous mothers who were purposively selected from the labor ward at Chandpur General Hospital, which is a secondary level hospital situated in the southern part of Bangladesh.

Research Instruments

This study used three research instruments:

1. The demographic data form consisting of age, religion, marital status, educational level, and occupation, family's monthly income, and obstetric information.

2. The Bryanton Adaptation Nursing Support in Labor Questionnaire (BANSILQ) developed by Bryanton et al. [1994] consisting of three categories of nursing support; emotional, informational, and tangible support. There were 25 items as follows: emotional support (7 items), informational support (3 items), tangible support (5 items), emotional and informational support (5 items), and emotional and tangible support (5 items). Each item had a 5-point Likert scale ranging from (1) *not at all helpful* to (5) *very helpful*. Possible scores of the BANSILQ were therefore between 25 and 125. In order to examine the level of nursing support, the range of scores was categorized into three levels (25-58.33 low; 58.34-91.66 moderate; and 91.67-125 high) based on Best and Kahn (2003).

3. The Birth Satisfaction Scale-Revised (BSS-R) developed by Martin and Martin (2014) consisted of ten items in three categories of satisfaction: stress experienced during labor, women's personal attributes, and quality of care provision. All items are rated on a 5-point Likert scale ranging from *strongly agree* (5) to *strongly disagree* (1). The scores of negative items' (2, 4, 7, and 8) were reversed into positive scores. Possible scores were therefore between 10 and 50. In order to examine the level of birth satisfaction, the range of scores was categorized into three levels (10-23.33 low; 23.34-36.66 moderate; 36.67-50 high) based on Best and Kahn (2003).

Reliability of the Instruments

Internal consistency reliability by

Cronbach's alpha coefficients of both the BANSILQ and BSS-R were tested among 15 primiparous mothers. The levels were found to be .81 and .82, respectively. These are considered acceptable levels (Polit & Hungler, 1999).

Back Translation of the Instruments

The forward and back translation process was applied to translate the BANSILQ and BSS-R instruments (Sperber, 2004). The original version of the English instrument was translated into the Bengali by one translator. The Bengali version was then translated into English by another translator. Then the two English versions were compared by a third translator to find any inconsistency between them.

Ethical Consideration of the Proposed Study

Prior to data collection, the study protocol was approved by the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University, Thailand, and permission was obtained from the Director of Chandpur General Hospital in Bangladesh. Every participant was informed about the purpose of the study and their written consent was given. The participants were informed that they had the right to participate or to refuse to participate in the study and that they had the right to withdraw at any time.

Data Collection Procedures

Data were collected by self-reported questionnaire. The following steps were performed:

1. After receiving permission to collect data from the director of Chandpur General Hospital in Bangladesh, the nurse-in-charge of the labor word was informed of the purpose and objective of the study for data collection.

2. The questionnaires were distributed to the target population of the primiparous mothers at the postpartum ward within 24 hours after giving birth. They were instructed to give the completed questionnaires to the researcher. Then the questionnaire was checked for completion.

3. The researcher collected and used the complete questionnaire for data analysis.

Data Analysis Procedures

Data were analyzed using a statistical computer program, SPSS version 13.0. Frequency, percentage mean, and standard deviation were used to analyze the primiparous mothers' demographic data, their perceived nursing support, and birth satisfaction. Pearson product moment correlation statistics were used to examine the relationships between primiparous mothers' perceived nursing support and birth satisfaction. Before performing the correlational analysis, the assumptions were tested by Kolmogorov-Smirnov test. This showed the normal distribution of the data. The relationship was judged according to the correlation coefficient values as follows: r = < .30 was considered weak, .30 to. 50 was considered moderate, and > .50 was considered strong (Burn & Grove, 2009).

Findings

Table 1 Frequency, Percentages, Mean, and Standard deviation of Participants Characteristics (n=82)

Characteristics	Frequency	Percentage
Age (years)		
< 20 years	49	59.76
20 - 25 years	28	34.14
> 25 years	5	6.10
(Range = 18 - 28, $\bar{x}$ = 21.17, S.D. = 2.18)		
Marital status		
Married	82	100.00
Religion		
Islam	69	84.15
Hindu	13	15.85
Education level		
Primary	29	35.36
Secondary	49	59.76
Higher secondary level	4	4.88
Occupation		
Government service officer	12	14.64
Private service officer	14	17.07
Housewife	56	68.29
Family monthly income (Taka) (1 USD = 80 Taka)		
< 3000 Taka	28	34.15
3000 – 10,000 Taka	47	57.32
> 10,000 Taka	7	8.53
(Range = 3000 - 15000.00, $\bar{x}$ = 6060.97, S.D. = 3338.32)		

Table 1 shows that the participants' age ranged from 18 to 28 years, with an average age of 21.17 years. The majority of them were less than 20 years old (59.76%) and the lowest percentage of participants was more than 25 years old (6.10%). The majority of the participants' religion (84.15%) was Islam, followed by Hindu (15.85%). The majority of the participants

(59.76%) completed secondary education, and the lowest percentage of mothers (4.88%) completed higher secondary level education. The majority of the participants (68.29%) were housewives, and the least common occupation (14.64%) was government service officer. The average family income was 6060.97 Taka. The majority of participants (91.47%) came from lower-middle income homes, with incomes of less than 10,000 Taka, and a few participants (8.53%) had a family monthly income of more than 10,000 Taka, which was considered as a medium-level income.

Table 2 Frequency, Percentage, Mean, and Standard deviation of Participants' Obstetric Information (n = 82).

Obstetric Information	Frequency	Percentage
Gestational age (weeks)		
37 - 38 weeks	65	79.27
> 38 weeks	17	20.73
(Range = 37-39, $\bar{x}$ = 37. 57, S.D. = 0.57)		
Pain medication during labor		
Yes	44	53.66
No	38	46.34
Baby's weight (grams)		
2500 – 2800	35	42. 68
2801 – 3200	46	56.10
3201 – 3500	1	1.22
(Range = 2500 - 3500, $\bar{x}$ = 2803.66, S.D. = 252.12)		
Duration of first stage of labor (hours)		
≤ 12 hours	75	91.46
> 12 hours	7	8.54
(Range = 9 - 14, $\bar{x}$ = 11.36, S.D. = 1.00)		
Duration of second stage of labor (minutes)		
≤ 120 minutes	67	81.71
>120 minutes	15	18.29
(Range = 85 - 180, $\bar{x}$ = 118.51, S.D. = 15.79)		

Table 2 shows that the participants' gestational age ranged from 37 to 39 weeks. More than half of participants (53.66%) received pain medication during labor. The majority of participants (56.10%) delivered babies weighing between 2,801 to 3,200 grams. The duration of the first stage of labor ranged from 9 to 14 hours, and the mean of the first stage of labor was 11.36 hours (S.D. = 1.00). The majority of the participants' (81.71%) second stages of labor were less than two hours long.

Table 3 Frequency, Percentage, Mean, and Standard Deviation of Nursing Support and Satisfaction during Labor of the Participants (n = 82)

	Frequency	Percentage
Nursing Support During Labor		
Moderate level	70	85.36
High level	12	14.63
($\bar{x}$ = 85.28, S.D. = 6.88)		
Satisfaction during labor		
Moderate level	80	97.56
High level	2	2.44
($\bar{x}$ = 32.22, S.D. = 2.31)		

Table 3 shows that the mean of nursing support during labor was 85.28 (S.D. = 6.88). The majority of participants (85.36%) perceived a moderate level of nursing support, while a small percentage (14.63%) perceived a high level of nursing support during labor. The mean satisfaction during labor was 32.22 (S.D. = 2.31). The vast majority of participants (97.56%) perceived a moderate level of satisfaction during labor, whereas a very small percentage (2.44%) perceived a high level of satisfaction during labor.

Table 4 Relationship between Nursing Support and Satisfaction during Labor of the Participants (n = 82)

Variable	Satisfaction during labor	
	R	P
Nursing support	-.031	.782

Table 4 shows that the relationship between overall nursing support and satisfaction during labor among participants was not statistically significant (r = -.031, p >.05).

Discussion

The results show that the participants in this study perceived nursing support during labor at a moderate level overall. The majority (85.36%) of the Bangladeshi participants perceived a moderate level of nursing support, and 14.63 percent perceived a high level of nursing support (Table 3). This finding is consistent with the study of Chunuan and Kochapakdee (2003) in Thailand, which found that the majority of primiparous mothers perceived moderate nursing support during labor. The possible reasons are that the current study was conducted in a secondary level hospital, where there were some limitations such as a shortage of nurses and supportive staff, limited space for delivery, limited hospital supply materials, and limited medication availability. The labor unit had 23 beds in the first stage of the labor room, which had three delivery beds. There were two nurses working in this unit in each shift. Nurses provided essential labor support to the participants within their limited time, and were often less able to provide adequate, full support to the participants.

Moreover, the results showed that the participants perceived satisfaction during labor at a moderate level. The majority (97.56%) of the participants had a moderate level of satisfaction, whereas 2.44 percent had a high level of satisfaction. These results are inconsistent with the study of Hinic (2015), in which a high level of satisfaction was found during labor among primiparous mothers in the USA. This might be due to the study setting and country context. In Bangladesh, the participants received emotional and informational support from nurses during labor. This support helped the participants to reduce their fear. Informational support about child birth can considerably increase women's confidence in their ability to cope with labor (Drummond & Rickwood, 1997). Inadequate support contributes to severe fear of vaginal delivery (Saisto, Salmela-Aro, Nurmi, & Halmesmaki, 2001). In addition, safe delivery contributes to participants' satisfaction by making them feel safe and also for their babies.

In respect to the relationship between perceived nursing support and satisfaction, it was not statistically significant (Table 4). This finding is inconsistent with the study of Mohammad, Shaban, Homer, and Creedy (2014). They found a negative relationship with low satisfaction with childbirth intrapartum care. Some possible explanations of the insignificant relationship between nursing support and satisfaction among participants in the current study are as follows: Firstly, this study used only 82 participants from a district hospital. Most of them were less than 25 years old, completed a secondary level of education, were housewives, and were from lower-middle income families. These factors may influence participants' satisfaction. In addition, the majority (81.71%) of the participants' second stage of labor ranged from 85 to 120 minutes. The long period of the second stage of labor means the participants had to pass through a difficult and painful time. However, in routine care of Bangladeshi mothers in these prolonged periods, they were only lying down and couldn't move or change physical position. After the birth process passed, the mothers were requested to answer the questionnaire. Thus, the satisfaction might not

correlate with the actual nursing support. Another reason is pain and pain medication. Pain is a common factor affecting participants' satisfaction during labor (John & Crowhurst, 2007). Use of pain medication during labor should produce optimum pain relief and the pregnant woman who receives pain medication should feel relaxed, rest, or sleep. Thus, they do not respond to or perceive nursing support during these times. Furthermore, after delivery, the participants and their babies are mostly cared for by their relatives; nurses provide less attention to them after birth. These may negatively affect their perception of nursing support and satisfaction during labor.

Conclusion

This descriptive correlational research was conducted among 82 Bangladeshi primiparous mothers in a secondary level hospital to evaluate the nursing support and satisfaction during labor and also examine the relationship between these two variables. Data were collected by research from April to May 2015. The instruments used for collection were a set of three questionnaires: the demographic data form, the Bryanton Adaption of the Nurses Support in Labor Questionnaire [BANSILQ], which was developed by Bryanton, Davey & Sullivan (1994), and the Birth Satisfaction Scale - Revised [BSS-R], which was developed by Martin and Martin (2014). The internal consistency reliability of these questionnaires had Cronbach's alpha coefficients of .81 and .82, respectively. Descriptive and Pearson product moment correlation statistics were used to analyze data. Regarding the results, it was found that the primiparous mothers perceived nursing support during labor at a moderate level ($\bar{x}$ = 85.28, S.D. = 6.88) and perceived satisfaction during labor at a moderate level ($\bar{x}$ = 32.22, S.D. = 2.31). There was no statistically significant relationship between nursing support and satisfaction during labor ($r = -.031$, $p > .05$). Hospital authorities and nurses should be concerned about the role to provide quality nursing support to improve their satisfaction during labor.

Implications of the Findings

1. Due to the perceived moderate level of nursing support and satisfaction during labor, it is recommended that an effective strategy must focus on improving the primiparous perceived nursing support and satisfaction during labor.

2. The research findings showed that the primiparous mothers perceived moderate levels of emotional support, informational support, tangible support, emotional and informational support, and emotional and tangible support. Therefore, improvement programs must focus on increasing nursing support toward primiparous women.

Recommendations for Further Research

The research results identified that primiparous mothers perceived a moderate level of nursing support and satisfaction during labor. Further research should emphasize factors such as hospital factors, nurse's factors, and primiparous factors including pain and stress, which influence nursing support and satisfaction during labor among Bangladeshi primiparous mothers.

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