ORIGINAL ARTICLE

Depression and Perceived Social Support Evaluation in Iranian Pregnant Women Who Underwent Elective or Non-Elective Cesarean Delivery in 2011-2012

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Abstract

Introduction: Psychological factors play an important role in post-partum period and they may cause some disorders such as post-partum depression. These disorders may be correlated with delivery modes. This study was designed to evaluated depression and social support in women who underwent elective or non-elective Cesarean delivery. **Methods and Materials:** This case-control study was conducted on 140 pregnant women who referred to Shairaaty Hospital, Isfahan, between 2011 and 2012. Seventy participants had a maternal request for Cesarean. Multi-dimensional Scale of Perceived Social Support (MSPSS-P) questionnaire and Beck Depression Inventory (BDI) were used for social support and depression evaluation in the subjects. **Result:** Mean age in the elective Cesarean group was 27.48 ± 4.25 years and mean age in group B was $27 + 4.16$ years. 31.5% of the women who underwent elective Cesarean and 27.2% of the participants who underwent Cesarean with a medical reason had depression according to the BDI (p value =0.515) and there was no significant difference between the groups in the social support subscales (p value >0.05). **Conclusion:** According to our results and previous reports, there was no association between the delivery mode and post-partum psychological disorders; however, family support may decrease these disorders.**[GMJ. 2012;1(2):72-77]**

Keywords: Cesarean; Depression ,Social support

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Introduction

The post-partum period is expected to be a great time by friends, families, and clinicians of pregnant women but childbirth is an event which may lead to different positive and negative psychological responses. Childbirth may even cause mental disorders, especially psychological disorders such as post-partum depression (PPD), post-partum psychosis, panic disorder, generalized anxiety disorder (GAD), and obsessive compulsive disorder (OCD). Recently, many studies have focused on psychological disorders associated with childbirth and delivery.[1] Cesarean section (CS) delivery is a common event for women giving birth in the developed world. More than 20% of deliveries have been performed by CS in the United States and the United Kingdom over recent years.[2] CS in Iran accounts for about 35% of all deliveries.[3]

Elective Cesarean (EC) is a type of CS which is performed on maternal request, and various factors such as medical and psychosocial factors are believed to play a role in maternal decision.[4] Prevalence of EC is estimated between 1 to 18% of all CS cases.[5] There are some factors which should be considered before choosing EC such as medical conditions, prior childbirth experiences, previous surgical outcomes, body mass index, and the patient's personal philosophy. It is also reported that other factors such as family pressure, pain concern, and fear from vaginal delivery should also be taken into account.[6]

Some advantages of EC reported in previous studies are listed here: EC could prevent post-term pregnancy and post-partum hemorrhage[7], it could prevent stillbirth;[8] and EC could reduce pelvic floor injury.[8] There are also some risks for EC in literature such as a longer recovery time,[9] and increased maternal morbidity.[10]

With respect to the factors mentioned in the previous studies, psychological disorders such as depression increase after delivery (PPD). Other psychological factors could have an affect on post-partum psychological disorders such as family and friend support. This study was preformed to evaluate PPD and social support in pregnant women who underwent elective or non-elective CS. The aim of this study was to evaluate the social support and depression in women who chose EC comparing with women who underwent CS on medical grounds.

Methods and Materials

This case-control study was performed in Isfahan from May 2011 to September 2012 on 140 patients, including 70 patients in the elective CS group (Group A) and 70 patients in the CS group (Group B).

Our inclusion criterion for the EC group was maternal request for CS, and our inclusion criteria for the CS group were breech, fetal distress, previous CS, and dystocia. We had excluded patients who had not signed informed consent.

Persian version of the Multidimensional Scale of Perceived Social Support (MSPSS-P) questionnaire, which contains 12 questions and was developed by zimet was used as our social support questionnaire. This questionnaire measures the perceived support in three subscales from family, friend, and significant other (a person with whom one shares a close relationship); each scale includes four items and each item has a score between 0 and 6. In this test higher scores show more perceived support. Cronbach's alpha coefficient was found to be 0.84 in the Farsi version of the MSPSSP for the whole scale and 0.90, 0.93 and 0.85, respectively, for friend, significant other, and family subscale in the patient sample, and 0.92 for the whole scale and 0.89, 0.92 and 0.87, respectively for the friend, significant other, and family subscales in a healthy sample.[11]

The Beck Depression Inventory (BDI) is one of the best known self-report measures for depression and it was developed by Aaron T Beck et al.[12] in 1960. This self-report questionnaire contains twenty-one questions and each question contains four sentences and each sentence has a score from 0 (absent or mild) to 3 (severe). The total score is calculated from 0 to 63. In this questionnaire, 0-13 is normal, 14-19 is mild, 20-28 is moderate, and 29-63 is severe depression.[12]

All the demographic information was recorded using a check list. The data were record-

ed via the questionnaires and entered into a computer data base. The data were analyzed by Statistical Package for the Social Sciences version 18.0 (SPSS Inc., Chicago, IL). The chi-square, T-test, Mann-Whitney, and Pearson product moment correlations were used for data analyses. The significance level (P value) was set at 0.05.

This study was approved by the Research Committee of Islamic Azad University, Najafabad Branch, and informed consent was obtained from all the participants.

Results

One hundred forty patients were divided into two groups. The mean age was 27.48 ± 4.25 years in group A 27 ± 4.16 years in group B. Statistical analysis showed that there was no significant difference between the groups in terms of age (P value=0.496).

As regards education level, in group A, 5 participants had education levels lower than high school diploma, 28 had a high school diploma, and 37 had higher education, while in group B, 2 participants had education levels lower than high school diploma, 31 had a high school diploma, and 37 had higher education. The Mann-Whitney test showed that there was no significant difference between the groups in age (P value =0.815).

Unplanned pregnancy was seen in 57 patients in group A and 54 patients in group B; the chi-square test demonstrated no significant difference between the groups (P value =0.305). The mean number of previous pregnancy was 0.21 + 0.5 in group A and 0.24 + 0.49 in group B; the T-test showed no significant difference between the groups in terms of the number of previous pregnancy (P value =0.736). Additionally, 58 women in group A and 55 in group B were nullipara, 9 in group A and 13 in group B had a child, and 3 in group A and 2 in group B had 2 children.

The Beck questionnaire showed that 48 patients in group A and 52 in group B were normal, 13 in group A and 10 in group B had mild depression, 9 in group A and 6 in group B had moderate depression, and only 2 in group B had severe depression. The Mann-Whitney

test showed that there was no significant difference between the groups in regard to depression (P value =0.515). The family support subscale in group A showed that low support was seen in 2 (2.9%) participants, 10 (14.3%) received normal support, and 58 (82.9%) had a high family support level. The family support subscale in group B showed that 13 (18.6%) had normal support and 57 (81.4%) had a high family support level; there were no statistical differences between the groups (P value =0.89).

The friend support subscale in group A indicated that that low support was seen in 17 (24.3%) patients, 28 (40%) received normal support, and 25 (35.7%) had supportive friends. The friend support subscale in group B revealed that 20 (28.6%) had low support, 32 (45.7%) had a normal support level, and 18 (25.7%) had a high friend support level. There was no statistical difference between the groups (P value =0.259).

The significant other support subscale in group A indicated that that low support was seen in 2 (2.9%) patients, 16 (22.9%) received normal support, and 52 (74.3%) had high support, whereas in group B, 12 (17.1%) had normal support and 58 (82.9%) had a high support score . There was no statistical difference between the groups (P value =0.194).

The Pearson product moment correlations showed that there was a significant reverse correlation between family support and depression (P value =0.048, r= -0.104). Moreover, there was a significant reverse correlation between friend support and depression (P value =0.032, r= -0.222), and there was a significant reverse correlation between family support and depression (P value =0.020, r= -0.245) in group A. The Pearson product moment correlations demonstrated a significant reverse correlation between family support and depression (P value =0.015, r= -0.259). In addition, there was a significant reverse correlation between friend support and depression (P value =0.003, r= -0.321) as well as a significant reverse correlation between family support and depression (P value =0.013, r= -0.265) in group B.The results are summarized in Table 1.

Table 1.

	Elective Cesarean group	Non-elective Cesarean group	P value
Age	27.48 ± 4.25	27 + 4.16	0.496
Unplanned pregnancy	57 (81.4%)	54 (77.1%)	0.305
Normal depression score	48 (68.5%)	52 (72.8%)	
Mild depression	13 (18.5%)	10 (14.2%)	
Moderate depression	9 (13%)	6 (8.5%)	0.515
Severe depression	0	2 (2.5%)	
Low family support	2 (2.9%)	0	
Normal family support	10 (14.3%)	13 (18.6%)	0.89
High family support	58 (82.9%)	57 (81.4%)	
Low friend support	17 (24.3%)	20 (28.6%)	
Normal friend support	28 (40%)	32 (45.7%)	0.259
High friend support	25 (35.7%)	18 (25.7%)	
Low significant other support	2 (2.9%)	0	
Normal significant other support	16 (22.9%)	12 (17.1%)	0.194
High significant other support	52 (74.3%)	58 (82.9%)	

Discussion

This study was designed to determine depression and social support in pregnant women who underwent CS with or without their request. In this study, 31.5% of the women who underwent EC and 27.2% of those who underwent CS on medical grounds had depression according to the BDI (P value =0.515). There was no significant

difference between the two groups in terms of family support, and most of the subjects had a supportive family. However, there was a reverse correlation between family support and the depression score in the groups. There was also a significant reverse correlation between the other subscales of social support (friend support and significant other support) and depression; this finding shows that the patients who enjoyed a better family support or better social support had less depression. In Iran, as a traditional country, family relationships play an important role in the prevention of some psychiatric disorders such as depression and this fact should be taken into account for Iranian patients.

Carter et al.[13] published a systematic review study (24 studies were evaluated) in 2006 on PPD and CS and reported that 5 studies had found a significant adverse association between CS and depression, 15 had reported no significant association, and 4 studies had reported mixed results. They meta-analyzed the data and reported that they could not find any evidence for PPD after CS.[13] Chen et al.[14] evaluated depression and perceived social support in Taiwanese patients who had CS and vaginal delivery. In their study, the mean depression score in the vaginal delivery group was 11.06 ± 8.32 and in the CS group was 9.68 ± 7.70. The mean perceived social support score was 34.31 ± 6.31 in the vaginal delivery group, and the mean perceived social support score in the CS group was 36.10 ± 6.39; there were no significant differences between the groups (P value >0.05). Their results chime in with the results of our study. Adams et al.[15] designed a cohort study to evaluate the association between maternal post-partum emotional distress and delivery. They evaluated 55814 women from Norway in 1998-2008 and reported that the mode of delivery was not associated with maternal post-partum emotional distress. Their findings are in agreement with ours. We also found no significant difference between the elective or non-elective CS groups with regard to depression and social support. Nerum et al.[16] evaluated 86 pregnant women who had fear of birth in north Norway in 2000-2002 and had reported that 90% of their patients who

had a request for CS experienced anxiety or depression. They reported that previous maternal experiences such as depression, anxiety, traumatic experiences, abuse, and psychiatric disorders might increase fear of vaginal delivery and maternal CS request. As was mentioned in previous studies and according to our findings, there are many factors which could have an affect on maternal request for CS such as fear of vaginal delivery because of maternal depression, anxiety, history of abuse or fear of pain during vaginal delivery, body dysmorphism and body image, sexual problems, and husband or family request. These factors may influence maternal mental health. Nevertheless, previous studies could not prove that there is an association between the mode of delivery and maternal psychological disorders, although there are some differences between these methods. We would recommend that all women after delivery receive support, especially from their family. This support may decrease their psychological distress and it could prevent some disorders such as PPD.

Acknowledgement

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