

Relationship Between Perceived Social Support and Anxiety Before and After Cesarean in the Pregnant Women

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ABSTRACT

Background & Objective: Most pregnant women experience a degree of anxiety before and after cesarean. Anxiety can have unfavorable complications for the mother and the baby. Given the probable relationship of social support with the amount of anxiety, the present study aimed to determine the relationship between perceived social support and anxiety before and after cesarean in the pregnant women referring to Besat Hospital in Sanandaj in 2018.

Materials and Methods: This study was a descriptive-correlational and cross-sectional study performed on 180 pregnant women under selective cesarean section surgery in 2018. Using the available sampling method, pregnant women referring to Besat Hospital in Sanandaj were selected with the criteria to enter the study. The data collection method in this study was a two-part questionnaire of demographic and midwifery information, perceived social support questionnaire and Dass 21 anxiety questionnaire. Data analysis was performed using SPSS software version 16, descriptive statistics, and the Pearson correlation test.

Result: Results indicated that the degree of the overall rate of anxiety before cesarean was 58.9% and in the post operation stage 19.5% respectively. In addition, there was a negative significant difference between social support and anxiety before the operation ($p < 0.05$, $r = -0.633$), and anxiety after cesarean ($P < 0.05$, $r = -0.476$).

Conclusion: The results of the study showed that there is a negative and significant relationship between perceived social support and anxiety before and after cesarean section. Hence it is advised that interventions be designed to identify and promote the level of social support in the pregnant women enrolled for Cesarean.

Introduction

Cesarean section means the exit of one or more newborns, or rarely, a dead fetus through the incision in the mother's abdominal wall and the uterus [1]. Cesarean section is one of the most common gynecological surgeries around the world [2]. However, it may cause mental and physical complications in the mother. Physical complications associated with cesarean section include intra- and postoperative bleeding, surgical site infections, intraabdominal adhesions, deep vein thrombosis (DVT) and pulmonary embolism [3]. Anxiety and stress are also considered psychological complications affecting mothers undergoing cesarean section [4]. Anxiety is a very unpleasant sensation that results from stress and

appears in the form of severe fear or distress or suspicion for an unknown factor [5]. Anxiety causes symptoms such as hand and foot tremor, sweating, palpitations, nausea, diarrhea, dry mouth, decreased concentration and confusion [6]. The prevalence of preoperative anxiety varies from 11% to 80%. Age, gender, culture, level of the individual's awareness of surgery, history of previous surgery, type and duration of surgery, and individual characteristics in stressful situations are some factors that can affect the level of anxiety suffered by patients [5].

Some of the main causes of preoperative anxiety include the fear of surgery, entering the unfamiliar environment, being away

from the family, lack of knowledge and awareness about the way surgery is done and its possible consequences [7] waiting for surgery, fear of pain or nausea, waking up during surgery, or loss of control during surgery [8], concerns about post-surgical problems such as pain, discomfort, changes in body shape or functions, the possibility of increased dependence on others, and possible changes in lifestyle [9]. During the postoperative period, anxiety may increase as a result of sleep deprivation caused by the noise at the hospital, fatigue, and fear of failure to recover [10]. Anxiety results in difficulty in accessing the patient's veins increased the need for anesthetics, and also the increased chance of pain, nausea, and vomiting during the postoperative period [11]. Preoperative anxiety, if not controlled or prolonged, may result in reduced wound healing, increased risk of infection, and changes in sleep patterns, which can prolong hospitalization, the patient's delayed discharge, and increased care costs [12]. Pharmaceutical and non-pharmacological methods can be used to reduce the stress and anxiety induced by surgery [13].

Due to the sedative effects of pharmacological methods, the use of non-pharmacological interventions, especially in the cesarean section where close contact between the mother and the baby is important, is recommended [4]. On the other hand, mothers are often concerned about medicinal prescriptions because of their health or breastfeeding and thus seek alternative and complementary therapies [14]. Nonpharmacological methods include heat and cold therapy, hypnosis, music therapy, relaxation, aromatherapy, electrical stimulation of the nerves [15], and social support. Social support can play a very important role in reducing maternal stress and anxiety, and its importance in protecting the mother's health during pregnancy has been emphasized [16]. Social support means receiving health information, material and psychological assistance from favorite persons including a partner, a relative, a friend, or a social network such as health care providers [17]. Social support is classified into two subcategories of perceived and received support [18]. Perceived social support refers to the individual's estimation of the availability of support when it is needed. In fact, it refers to the perception that a person suffering from pain has access to effective people who are able to potentially help him when needed [19].

According to researchers, perceived social support is more important than received support for health behaviors. This conclusion is based on the argument that if sources of support are not perceived by a person, he/she will not use them [20]. The results of Bodaghi [21] study suggested that anxiety, depression, and stress in pregnant women have a negative relationship with social support [21]. However, Fayyazi, et al. [22] did not report a significant relationship between social support and anxiety in pregnant women [22]. Therefore, considering the complications of anxiety, the contradictory results regarding the relationship between perceived social support and anxiety, inadequate attention to the psychological complications of cesarean section and due

to lack of knowledge in women undergoing cesarean section, this study aimed to determine the relationship between perceived social support and anxiety before and after cesarean section in pregnant women who referred to Besat Hospital in Sanandaj.

Methodology

This cross-sectional, descriptive-correlational study was conducted on 180 pregnant women referring to Besat Hospital in Sanandaj to undergo cesarean section. The inclusion criteria included pregnant women aged 18 to 45 years, fully alert, planned pregnancy, having a natural course of pregnancy, being healthy in terms of hearing and speech, lack of mental retardation in the mother, lack of history of infertility, lack of education in medicine.

and paramedics, lack of history of known mental illness, and other illnesses affecting the psychological state and surgical outcomes, not taking anti-anxiety and anti-stress drugs in the preoperative period, having no significant event other than pregnancy in the past 9 months, not having a disabled spouse or child, no history of cesarean section and previous surgery (non-cephalic view of the fetus, placenta previa, two or multiple pregnancies,...) non-use of tobacco and drugs, and for the post-cesarean section, in addition to the above, the birth of a seemingly healthy child was also an inclusion criterion. The exclusion criteria were the unwillingness to continue cooperation, tubectomy or hysterectomy during surgery, postpartum complications such as bleeding, eclampsia, fever and other postpartum complications, the death of the baby after birth, and the baby's hospitalization in the neonatal intensive care unit.

After obtaining permission from the Ethics Committee of Kurdistan University of Medical Sciences, the researcher resorted to collecting information on consecutive days in the morning to the postpartum section of Besat Hospital and presented to pregnant women who were referred for preparation for cesarean section and had criteria for entering the study, provided an explanation of the purpose of the study. After signing the consent form, questionnaires for demographic and midwifery information, social support perception, and anxiety DASS 21 were completed by the participants in the pre-cesarean section 7 days after the cesarean. The demographic information questionnaire including questions about age, level of education, and occupation of the women and their husband, family income level, and midwifery characteristics such as questions about marital satisfaction, the level of parity and satisfaction with the baby's gender. To measure social support in this study, the Social Support Survey Scale (MOS-SSS)1 developed by Sherbourne, et al. [23] for use in medical outcomes, was administered to the respondents.

The scale measures the respondents' social support using 19 statements and 5 sub-scales. These sub-scales include tangible support including material and behavioral support (items 9 to 12), emotional support that evaluates positive emotions, sympathy,

and encouragement to express feelings (items 1-8), Information support that measures guidance, information or feedback (items 1- 8), kindness that measures love and affection (items 16 to 18), positive social interaction that measures the existence of individuals to engage in recreational activities (items 13, 14, 15, and 19). This scale is a self-report questionnaire that asks the participants to express the degree of their opposition or agreement with each of the statements based on a five-point Likert scale (never = 1, rarely = 2, sometimes = 3 points, often = 4, and always = 5 points). The lowest and the highest scores one may obtain on this scale are 19 and 95, respectively. To get the overall score, the sum of all scores is calculated. A higher score on this scale indicates that the person receives a higher level of social support. The reliability of this scale was reported using the Cronbach's alpha coefficient in the range of 74% to 93% [23].

Temanaifar, et al. [24] confirmed the face and content validity of the scale from the point of view of psychologists and estimated its reliability through the Cronbach's alpha coefficient as equal to 97% [24]. Then, based on their perceived social support scores, the respondents were placed into three groups (low social support: scores 19 to 44), (average social support: scores 44 to 69), and (high social support: scores: 69 to 95: high social support) [25]. To assess the respondents' anxiety, the Depression, Anxiety, and Stress Scale (DASS 21) was administered. The scale consists of 21 items that measure depression, stress and anxiety, each by 7 items. The final score of each of the three scales is calculated as the sum of scores gained on that scale. The respondents' anxiety levels were assessed using items 2, 4, 7, 9, 15, and 20. The questions in this questionnaire are based on Likert and have four chances at all (none = 0, low = 1, average = 2, and high =3). After calculating the sum of the scores of the seven items, the final score obtained on the anxiety subscale was multiplied by 2 in order to match the 42-item scale. The final score obtained shows the severity of the symptoms (0-7: normal anxiety, 8-9: low anxiety, 10-14: average anxiety, 15-19: severe anxiety, and ≤ 20: very severe anxiety). The reliability and validity of the scale have been confirmed in various studies in Iran [26] and abroad [27]. After completing the DASS 21 in the pre-cesarean phase, the respondents completed the scale again 7 days after cesarean section. The collected data were analyzed using descriptive statistics and Pearson correlation test using SPSS software (version 16).

Results

The mean age of the respondents was 30.51 ± 6.32 and that of their husbands was 34.87 ± 6.78. Most of the respondents (85.6%) were housewives and 92.8% of their husbands were employed. 73.3% of them had a sufficient level of income and the majority of the respondents and their husbands held a high school diploma (37%). Most of the respondents (86.7%) were satisfied with their marital life. Besides, the majority of the respondents (83.9%) were satisfied with their baby's gender. Table 1 shows the frequency and

level of perceived social support in the respondents. As it can be seen, the percentage of perceived social support in the majority of respondents (63.3%) is within the score range of 44-69, indicating an average social support level. Also, 2.2% of the research units had a low level and 34.5% had a high level of social support. Table 2 shows the respondents' levels of anxiety before and after cesarean section. As it is shown, the anxiety level in the majority of respondents before the cesarean section (41.1%) and after cesarean section (80.5%) is within the ange of 0-7, indicating a normal level of anxiety.

Table 1: The frequency and level of perceived social support.

Variable	Level	Frequency	Percentage
	19-44	4	2.2%
Perceived	44-69	114	63.3%
Social Support	69-95	62	34.5
	Total	180	100

Table 2: The respondents' levels of anxiety before and after cesarean section.

Variable	Level	Frequency	Percentage
	0-7	74	41.1%
	8-9	32	17.8%
	10-14	53	29.4%
Anxiety before cesarean section	15-19	13	
			7.3%
	≤20	8	4.4%
	Total	180	100%
	0-7	145	80.5%
	8-9	14	7.8%
	10-14	19	10.6%
Anxiety after cesarean section	15-19		
			2
			1.1%
	≤20	0	0%
	Total	180	100%

The overall anxiety levels before and after the cesarean sections were 58.9% and 19.4%, respectively. Table 3 shows the correlation between perceived social support and anxiety before and after cesarean section. The results of the Pearson correlation test showed a significant negative correlation between perceived social support and anxiety before and after cesarean section (p-value = 0.0001). The correlation coefficient values indicate the intensity and direction of this relationship. According to the obtained values, there a negative and strong correlation between the two variables, indicating that by increasing the level of perceived social support, the level of anxiety decreased before and after cesarean section.

Table 3: Correlation between perceived social support and anxiety before and after cesarean section.

Anxiety Before		Anxiety After		Perceived
Variable	Statistics	cesarean	cesarean	social
		section	section	support
Perceived social support	Correlation	-0.633	-0.476	1
	P-value	0.0001	0.0001	-----
Anxiety before cesarean section	Correlation	1	0.503	-0.633
	P-value	-----	0.0001	0.0001
Anxiety after cesarean section	Correlation	0.503	1	-0.476
	P-value	0.0001	-----	0.0001

Discussion

The results of the study showed that the majority of the respondents experienced an average level of perceived social support. These results are consistent with a study conducted by Faramarzi, et al. [28] who reported the average social support among pregnant women [28], but contrary to the results of a study by Sadeghi Avalshahr et al., who reported high social support among mother [20]. The reason for the inconsistency between the two studies can be due to differences in the studied populations. The participants in Sadeghi et al.'s study were primiparous women, and such women are more likely to be supported by their relatives. The anxiety level of the respondents before the cesarean section was 58.9% (17.8% low anxiety, 29.4% average anxiety, 7.7% severe anxiety, and 4.4% very severe anxiety) and after cesarean section was 19.4% (7.8% low anxiety, 10.6% average anxiety, and 1.1% severe anxiety). The results are consistent with the results of a study by Almalki, et al. [29] who reported a high level of anxiety in patients before elective surgery [29]. The findings of the present study showed a significant negative relationship between perceived social support and anxiety before and after cesarean section ($p < 0.05$).

This finding is consistent with the results of previous studies [21,30]. Social support is a protective factor against depression and anxiety in pregnant women, which, improves mental health through psychological mechanisms or the endocrine system. Social support in women is associated with positive mood, self-efficacy, self-esteem, proper self-esteem, good quality of life, and positive interpersonal relations [21]. When a person comes to believe that there are those who can help her when needed, her ability to overcome psychological pressures increases. In fact, perceived social support plays a moderating role in stressful life situations and has a positive role in the physical and psychological health of individuals [31]. Perceived social support can help a person who

needs effective psychological help to cope with the pressures and problems of life because such a person has a clear perception in all the moment in life that there are some who help him/her when needed. Therefore, he/she stands more powerfully against difficulties [19]. The limitations of this study include the cross-sectional nature of the study, the limited access to Besat Hospital, the relatively low number of respondents (despite the calculation of the sample size based on previous studies), the use of availability sampling technique and the possibility that the respondents' may have not provided honest responses in the presence of the researcher.

Conclusion

Considering the prevalence of anxiety before and after cesarean section, special attention needs to be paid to maintaining and improving the mental health of pregnant women, along with their physical health. Given the multiple complications of anxiety on mothers and infants and the relationship between social support and anxiety in the pre and postcesarean section, health managers and health care practitioners are recommended to design some interventions to identify and promote the level of social support for pregnant women who are volunteers for cesarean section. Mental health and its related factors in pregnant women and patients undergoing surgical procedures should be placed on the top of the research list of the university.

Research Limitations

The limitations of this study are that this study was a cross-sectional study and there was the probability of not answering the research samples honestly to the questionnaire questions by the participants.

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