

Comparing Prenatal and Postnatal Social Support of Women with Wanted and Unwanted Pregnancies Referring to the Health Centers of Mashhad, Iran

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ARTICLE INFO	ABSTRACT
<p><i>Article type:</i> Original article</p>	<p>Background & aim: Prenatal and postnatal social support could affect pregnancy consequences, especially the number of wanted pregnancies. This study was performed to compare the social support of women with wanted and unwanted pregnancies referred to the health centers of Mashhad, Iran.</p>
<p><i>Article History:</i> Received: 09-Mar-2021 Accepted: 25-Oct-2021</p>	<p>Methods: This descriptive cross-sectional study was conducted on 177 pregnant women selected by multistage sampling method in the health centers of Mashhad, from 20th Nov. 2016 to 20th Jan 2017. The pregnant women were classified into two groups, with wanted and unwanted pregnancies at the beginning of pregnancy. They were asked to complete the modified questionnaire of social support during pregnancy. Also, in the second or third visit after birth, they were again asked to complete the modified version of the Postpartum Social Support Questionnaire (PSSQ). Data were analyzed by SPSS software version 27 using T-test, Chi-Square, and MANCOVA.</p>
<p><i>Key words:</i> Social Support Pregnancy Postnatal Birth Iran</p>	<p>Results: Both the mean score of social support during pregnancy (15.36±.96 VS 14.49±1.33, P<0.000) as well as postnatal social support were higher in wanted compared to unwanted pregnancy groups (161.58±16.90 VS 156.79±13.07, P=0.044).</p> <p>Conclusion: The results of this research indicated that mothers with wanted pregnancies had higher social support than unwanted pregnancies; hence, more attention should be paid by specialists and service providers to promote social support in women with unwanted pregnancies.</p>

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Introduction

Unwanted pregnancy is an important challenge of reproductive health and not only affects women, but also the family and society (1). About 80 million women experience unwanted pregnancies worldwide every year (2). Lack of family social support has been reported as one of the barriers to childbearing(3). Iranian policy-makers are very concerned about childbearing and population decline

(4).Despite the fact that the percentage of family planning coverage is about 73.3% in Iran, none of contraceptive methods are 100% effective. Therefore, families are still experiencing unwanted pregnancies in Iran; the incidence of unwanted pregnancies in Iranian women reported as 27.9% (5, 6). The prevalence of unwanted pregnancy is considered as an important public health index because unwanted

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pregnancy leads to a wide range of health, social and psychological complications (6, 7).

The negative consequences of unwanted pregnancy can be attributed to illegal and unhealthy abortions that can increase the incidence of bleeding, infection, uterine rupture and even maternal death (8,9). Other health effects of unwanted pregnancies include the lack of adequate care during pregnancy, low birth weight, infant prematurity, and increased mortality (9, 10). Studies indicated that unwanted pregnancies trigger negative and emotional reactions to pregnancy; women with unwanted pregnancy are subjected to severe stress and abortion due to the lack of physical, mental, and economic preparation for pregnancy (8, 11). In general, women with unwanted pregnancies are at more risk of social stress, higher depression and lower life satisfaction than those with wanted pregnancies (12, 13).

Social support is a psychosocial factor which facilitate the health behavior and affects the individual health (14). Social support by relatives plays an important role during prenatal and postnatal periods (15). Social support plays a protective role by reducing women's stress during pregnancy (16). Results of previous studies indicated that the lack of social support is an important risk factor for the postnatal depression, while strong social support is a protection against prenatal and postnatal depression (15, 17).

Despite a large number of studies on negative consequences of unwanted pregnancies (8, 11-13) and the impact of social support on the individuals' health status (14- 17), there is no study on the comparison of social support in women with wanted and unwanted pregnancies. Therefore, the present study was performed to compare the social support of women with wanted and unwanted pregnancies referred to the health centers of Mashhad In 2017.

Materials and Methods

In this descriptive cross-sectional study, the statistical population consisted of 177 pregnant women who met the inclusion criteria. After approval of the research and receiving the permission, the researcher referred to the selected urban health centers and performed sampling. From 20 November 2016 to 20 January 2017, one of the comprehensive urban

service centers was randomly selected from the 5 health centers in Mashhad (tossing a coin); each center was sampled according to the population of pregnant women by convenient sampling method.

The sample size was determined by a pilot study on 20 subjects in each group. Based on the mean and SD of subjective social support in the two groups in the pilot study, and using $\alpha=0.05$, and $\beta=0.20$, the sample size was estimated as 74 subjects in each group ($x_1=164.12 \pm 9.65$, $X_2=159.57 \pm 9.85$).

$$n = \frac{\left(z_{1-\frac{\alpha}{2}} + z_{1-\beta}\right)^2 (s_1^2 + s_2^2)}{(\bar{x}_2 - \bar{x}_1)^2}$$

$$\frac{(1.96 + 0.84)^2 (9.65^2 + 9.58^2)}{(164.12 - 159.57)^2} = 74.14$$

The inclusion criteria were: The Iranian nationality; pregnancy without any medical and midwifery complications under the control of medical centers, and no intention to migrate or move from the current house. The exclusion criteria were: The infants with abnormality or Apgar score ≤ 7 ; a disabled child, partial completing more than 10% of the questionnaires and no desire to participate in the study. To cover all urban areas, at least one urban health center with a maternal and neonatal health unit was randomly selected (draw) and the convenience non-probable sampling was performed from each health center according to a quota proportional of the population of pregnant women. They were classified into two groups: wanted and unwanted pregnancy. After explaining the research objectives, written consent was obtained based on their responses in the first trimester of pregnancy. They were then asked to answer to the demographic forms of social support for pregnant women, and also answer to the postnatal social support forms during one of the second or third postnatal care.

At first, 105 women were selected in each group (210 total), then 33 women excluded from the study. The reasons of exclusion were: low Apgar score (one in wanted pregnancy group), preterm labor (2 women), partial

completion of the questionnaires (18 women) in unwanted pregnancy group also 18 participants stated that their pregnancies were unwanted at first and then was not completely unwanted, therefore they were excluded from the analysis. Finally, analysis was performed on 177 samples. Data about social support during pregnancy was collected by modified Social Support questionnaire during pregnancy (MSDP). MSDP is derived from a 9-item social support questionnaire (2005) (18), and its content validity was confirmed by the judgment of a panel of ten experts in health reproductive.

Five items (1-4, 9) of MSDP are answered by yes (2 points) and no (1 point), and item 9 is answered reversely. Other items were scored in 3-point Likert scale (5.How do you feel about the pregnancy? 6. How do your husband feel about the pregnancy? (Good=3, No difference=2, bad=1), When you felt nervous about the pregnancy, who helps you feel better? (Nothing=1, Husband=2, parents and husband=3), what kind of community support do you have where you live? (Financial support and reduce working hours=3, working hours=2, Nothing=1). Total score of MSDP were 9-22. Higher scores indicate higher support. The reliability of the MSDP was assessed in 10 subjects by test-retest after two weeks ($r > 0.7$, $P < 0.05$)

Postpartum Social Support Questionnaire (PSSQ) has been developed by Hopkins and Campbell (2008) and it is a valid tool (19). It includes 50 questions in four domains, husband/partner, parents, parents-in-law, other family or friends. 14 items are related to the husband, 11 items to the women's parental support, 11 items to the husband's parents (questions 1 to 11) and the last 14 items are related to support from friends and relatives (questions 36-50). The tool has been designed on a 5-point Likert scale (1= never to 5 =always). The scores are ranged from 50-250 with low support (≤ 83), moderate support (84-166), and high social support (> 166). In this study, content validity of PSSQ was determined by the content validity through surveys of ten experts in health reproductive; and its reliability was determined by the Cronbach's alpha ($\alpha = 0.7$).

The normality of the quantitative variables was investigated by using the Shapiro-Wilks

test. A two sample t test was used to compare the means of the two groups. Chi square test was used to assess the relationship between quantitative variables. Multivariate regression assumptions were reviewed and confirmed. The multivariate normality of the residual multivariate regression was investigated using Shapiro-Wilk test. Box's test was used to evaluate the homogeneity of covariance matrices. $P < 0.05$ was considered as significant. Statistical analysis was conducted using the SPSS software version 27 and R 4.2.

The Ethics Committee of Mashhad University of Medical Sciences (IR.MUMS.REC.1396.286) has approved this research. Information confidentiality was explained to the participants.

Results

The mean age of women was 29.91 ± 6.07 years in the wanted pregnancy group and 28.06 ± 5.96 years in the unwanted pregnancy group. Independent t-test showed significant difference between the mean age of the two groups ($p < 0.05$). Demographic characteristics are presented in Table 1.

There was a significant difference between wanted and unwanted pregnancy groups in terms of social support for pregnant women using the independent t-test. ($p < 0.001$). Also, there was a significant difference between the two groups in terms of postnatal social support using the independent t-test ($p < 0.001$) (Table 2).

As can be seen in Table 1, the age and family income were identified as confounder variables, the effect of age and family income was adjusted to compare different the dimensions of social support using multivariate analysis of variance (MANCOVA) test.

Table 3 and 4 showed the results of the MANCOVA analysis to compare the means of dimensions of social support by controlling age and family income before and after adjustment ($p < 0.05$). According to Table 4, there was a significant difference between the two groups in terms of husband's social support, but no significant difference was seen in terms of support from husband's parents, women's parents, and friends.

Table 1. Some of characteristics of pregnant women in this study

Variable	Wanted pregnancy (n=104)	Unwanted pregnancy (n=73)	P- value
Age	28.06 ±5.95	29.91 ±6.07	0.040*
Duration of marriage	6.72 ±5.12	7.69 ±5.72	0.257*
Number of deliveries	1.72 ±.84	1.85±.94	0.313*
Number of pregnancies	1.96±1.00	2.01±1.25	0.759*
number of children	1.73±.93	1.75±.95	0.848*
Woman's education level			
<diploma	42(40.4)	35 (47.9)	P= 0.681**
diploma	32 (30.8)	22 (30.1)	
>diploma	30 (28.8)	16 (22.0)	
Husband's education level			
<diploma	53 (52.0)	37 (50.7)	P= 0.942**
diploma	26 (25.5)	21 (28.8)	
>diploma	23 (25.5)	15 (20.5)	
Job			
Employed	19 (18.3)	9 (12.3)	P=0.286**
Housewife	85 (87.7)	64(87.7)	
Family income			
<sufficiency	38 (38.4)	18 (24.65)	P= 0.044**
Sufficient	49 (49.5)	37 (50.7)	
>sufficiency	12 (12.1)	18 (24.65)	
Pregnancy leave			
Yes	4 (13.3)	15 (65.2)	P<0.001**
No	26 (86.7)	8 (34.8)	
Job attitude			
Yes	21 (70.0)	14 (58.3)	P= 0.372**
No	9 (30.0)	10 (41.7)	
Tendency to future pregnancy			
Yes	14(58.3)	9 (30.0)	P<0.001**
No	15 (41.7)	21(70.0)	

*t- test ** Chi-Square

Table 2. Comparison of the mean score of social support during pregnancy in wanted and unwanted pregnancy groups

Variable	Group		P-value
	Unwanted pregnancy	Wanted pregnancy	
	Mean± SD	Mean± SD	
social support during pregnancy	14.49±1.33	15.36±.96	<0.001
Total of postnatal social support	156.79±13.07	161.58±16.90	0.044

Table 3. Comparison of mean social support after childbirth in wanted and unwanted pregnancy groups (before adjustment)

Domains of PSSD	Group		P- value
	Unwanted pregnancy	Wanted pregnancy	
	Mean± SD (n=104)	Mean± SD (n=73)	
Husband	45.52±5.14	41.20±3.81	<0.05*
parents	45.50±8.39	44.50 ±7.18	0.615
parents-in-law	32.96±7.07	33.20±8.21	0.833
other family or friends	37.98±7.01	37.87±6.02	0.918

Discussion

The present study aimed to determine and compare the social support of women with wanted and unwanted pregnancies referring to the health centers of Mashhad. The research results indicated that mothers with wanted pregnancies had higher social support than those with unwanted pregnancies; and the rates of prenatal and postnatal social support were lower in women with unwanted pregnancies. There was no study on the examination of social support in women with wanted and unwanted pregnancies. The results of the study by Chaaya et al. (2002) indicated that the relatives' prenatal and postnatal social support was significantly important for women. In fact, the attention and support by relatives, especially husbands of pregnant women provides hope and desire for them and give more time to relax and compare their experiences with other women and enjoy this experience. This support attracts the mothers' attention to positive aspects of childbirth and decreases the possible influence of hormonal and biological changes on their mental status (15).

The findings of the present study also indicated that there was a significant relationship between spousal support and wanted or unwanted pregnancy; and the husbands' social support was lower in unwanted pregnancy. This result was consistent with the results reported by other studies (12, 13). In the present study, in terms of support by women's and husbands' parents and friends, there was no statistical significant difference between wanted and unwanted pregnancy groups probably due to the couples' opinion on the wanted or unwanted pregnancies; this issue had no impact on the support by their parents

and friends after labor because studies indicated that friends and other family members supported couples during pregnancy and after childbirth, regardless of they had wanted or unwanted pregnancies (20).

The husband's support was also the most important factor in emotional recovery after childbirth according to the study by Jahani et al. (2019) (21). Results of the studies by other researchers also indicated that the prenatal and postnatal social support was a protective factor for maternal depression; and the social support predicted maternal depression during pregnancy and postpartum (17, 22). Results of other studies also indicated that low husband's support during pregnancy and low perceived social support by mothers were the predictors of postpartum depression (23, 24). Results of the study by Moshki (2015) on social support and pregnancy depression also indicated that pregnant mothers, who had high social support, were less likely to experience depression during pregnancy (25). Furthermore, Chen et al (2013) found that there was a positive correlation between social support and postpartum depression; depression level decreased by increasing the social support score (26).

The researchers believed that social support increases self-esteem and decreases the negative effects of stress. People with higher social support and lower interpersonal conflict are more resistant in dealing with stressful life events and have lower signs of depression and mental turmoil. Social support also leads to higher self-confidence that raises the individual resistance to negative effects of stressful factors. On the other hand, social support plays an important role in maintaining health by

protecting and reducing harmful effects of stressful events (27,28). Results of other studies indicated that women with unwanted pregnancies are more prone to negative psychological and social consequences (6, 7) and postpartum depression. Dibaba et al. (2013) stated that the higher social support in such women may decrease their depression (6). Therefore, it is necessary to identify the pregnancy intention in women (wanted or unwanted) and determine their social support rates received during pregnancy visits to provide appropriate counseling and improve their prenatal mental health.

The findings of the present study also indicated that rate of prenatal-postnatal social support was associated with income level, number of pregnancies, number of childbirths, and tendency to future pregnancy. Therefore, if there was a tendency to future pregnancy, low number of childbirth and pregnancy according to their views, and thus the pregnancy was wanted, the husbands provided more support of women during pregnancy. These results were consistent with the findings of the research by Kuhnt and Trappe (2016) (22).

Like other studies on this field, the present study had some limitations that should be considered. One of them was its limited implementation among urban women population. Widespread studies, which cover both rural and urban female populations, can provide different results because the rate of social support from relatives and husbands in cities are different from rural and small societies.

Conclusion

Mothers with wanted pregnancies had higher social support than those with unwanted pregnancies. Prenatal and postnatal social support was lower in women with unwanted pregnancies. Social support can be considered as an effective factor in promoting childbearing by health policy makers and helped increase women's support during pregnancy by educating their husband and family.

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Conflicts of interest

Authors declared no conflicts of interest.

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