

■ Original article

Social support in the pregnant and non-pregnant women and its associated dimensionsNajmeh Hamzavi Zarghani¹, Mahin Nazari^{2*}, Zeinab Shayeghian³, Shohreh Shahmohammadi¹

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Abstract

Background and Purpose: Social support is considered as a facilitator of health behaviors in women. This study aimed to evaluate and compare the status of social support and its associated dimensions in pregnant and non-pregnant women.

Methods: This analytical study was conducted on 310 pregnant and non-pregnant women referring to the health-care centers of Zarqan city in Shiraz, Iran in 2011. Participants were selected via convenience sampling. Data collection tools included demographic questionnaire and Social Support Appraisals (SS-A) scale. Data analysis was performed in SPSS V.16 using descriptive (frequency, percentage, mean, and standard deviation) and inferential statistics (Chi-square, T-test, and Pearson's and Spearman's correlation-coefficient).

Results: In non-pregnant women, mean of the total social support was 40.08 ± 2.80 , and mean scores of support from friends, spouse, family and others were 12.08 ± 1.33 , 14.02 ± 1.56 , 14.53 ± 0.96 and 13.54 ± 1.09 respectively. Among pregnant women these values were 39.52 ± 2.85 , 11.72 ± 1.59 , 14.54 ± 1.12 , 14.38 ± 1.06 and 13.41 ± 1.18 , respectively. The total support and support from friends were significantly higher in non-pregnant women compared to pregnant women ($P = 0.05$ and $P = 0.03$, respectively). On the other hand, support from the spouse was significantly higher in pregnant women compared to non-pregnant women ($P = 0.01$). Moreover, a significant correlation was observed between the total scores of social support and employment status of spouse among pregnant women ($P < 0.01$). Also, significant associations were found between social support and employment status of spouse ($P < 0.01$), mother's availability ($P < 0.05$), and education status ($P < 0.05$). Family support in pregnant women had a significant relationship with the employment status of spouse ($P < 0.05$), father's availability ($P < 0.01$), and mother's availability ($P < 0.05$). In addition, there was a significant correlation between the social support from others and employment status of the pregnant women ($P < 0.05$).

Conclusion: According to the results of this study, there were significant differences in the total scores of social support and mean scores of support from the spouse and friends between pregnant and non-pregnant women. It seems that physical and psychological changes during pregnancy largely influence the perception of expecting mothers towards social support.

Keywords: Non-pregnant women, Pregnant women, Social support

Introduction

Social support is defined as the unofficial, mutual communication between the members of a social network, which is usually spontaneous and beneficial. Social support plays a pivotal role in coping with stressful conditions and increases tolerance of individuals in the face of challenges (1). Social support helps individuals to feel valued and respected and brings sense of belonging to a community (2). Social support can avoid an event

from being perceived as a stressful factor, therefore it makes less negative consequences likely, or it may provide solutions by adaptive responses. Furthermore, social support could decrease the intensity of crises in life and contribute to acquisition of skills that are necessary to ward off the effects of stressors (3).

The biological and social role models believe that women have a higher tendency to seek social support

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compared to men (4-6). Women are expected and encouraged to turn to others for help and support when coping with problems. In stressful conditions, women are more likely to perceive the available social support compared to men (7-8). Pregnancy is a life-changing event in woman's life and is associated with numerous physical, emotional and social changes (9). Moreover, pregnant women may experience many difficulties, such as low age, lack of social support, living alone, large numbers of children, uncertainty about pregnancy, illness or death of loved ones, short interval between pregnancies, previous child death, and various diseases (10). Lack of psychosocial and emotional adjustment during pregnancy is considered as a major risk factor for expecting mothers.

Emotional problems, especially depression and anxiety, may lead to several complications during pregnancy and childbirth. Such examples are low birth weight, prematurity and intrauterine growth restriction (11). Furthermore, maternal anxiety before birth may result in behavioral and emotional disorders in the child (11). Therefore, proper care during pregnancy could greatly reduce the associated side effects (e.g., premature rupture of membranes, infections, low birth weight, and macrosomia) and prevent severe and permanent complications in the mother and infant. Therefore, pregnant women need extra care due to physiological changes because, as a normal and healthy individual, they are developing another existence in their uterus (12).

Lack of social support is considered as a major risk factor for the well-being of mothers during and after pregnancy (11). In one study, it was indicated that inadequate social support in early pregnancy could reduce the birth weight of neonates by nearly 200 grams (11). Social support is one of the most effective coping strategies in the event of psychic tension in women, which could also alleviate stress during pregnancy. According to the literature, risk of emotional distress in pregnant woman could significantly decrease if adequate support is provided from the family, friends, and particularly the spouse (1). Women who perceive sufficient social support normally have better coping behaviors, as well as higher personal competence, sense of stability, and

self-esteem. In addition, social support has been reported to reduce the incidence of depression and anxiety in women (13).

It is assumed that inadequate social support may be accompanied with high-risk; however, empirical evidence is scarce to support this assumption (14). Comparison of social support between pregnant and non-pregnant women could clarify whether the perception of social support differs in women during pregnancy. Moreover, investigation of the effects of social support on pregnancy outcome could researchers in designing effectual interventions in this regard.

This study aimed to obtain a more comprehensive supposition towards social support and its associated dimensions in pregnant and non-pregnant women.

Materials and Methods

This analytical study was conducted on 310 pregnant and non-pregnant women (155 each) referring to two healthcare centers of Zarqan city in Shiraz, Iran during January-June 2011. Due to the limited number of pregnant women at these healthcare centers during the time of the study, participants were selected via convenience sampling.

Women at different trimesters of pregnancy were invited to participate in the study by the clinic staff as they attended routine antenatal appointments. Inclusion criteria of the study for pregnant women were age of <40 years and residence in Zarqan city. For non-pregnant women, the inclusion criteria were having no infants aged less than four months and no gestation within the past four months. The only exclusion criterion was the presence of chronic diseases during pregnancy. The two study groups were matched in term of age, and written informed consent was obtained from all the participants. Study protocol was approved by the Ethics Committee of Shiraz University of Medical Sciences.

Data collection tools included demographic questionnaire and Social Support Appraisals (SS-A) scale. Demographic data of the participants included age, education status, employment status of the couple, number of family members, and

availability of the parents.

SS-A was first developed by Vaux et al. (1986). This scale consists of 23 items on friends support (7 items), family support (8 items), and support from others (8 items) (15). Reliability of SS-A has been determined at 0.75 by Asgari et al. using Cronbach's alpha for the Iranian population (16).

To confirm the reliability of SS-A, we measured the internal consistency by using Cronbach's alpha, which was estimated at 0.76, 0.75, 0.75, and 0.82 for the social support from family, friends, others, and total of social support, respectively. As this scale evaluated social support in three main dimensions, the researchers added eight items to specifically measure the support from the spouse. Cronbach's alpha for the dimension of spouse support was determined at 0.87 in our study.

To assess the validity of the SS-A, its scores of this scale were correlated with the scores of the Oxford Happiness Questionnaire and a significant positive relationship was observed between these two scales ($N = 50$, $r = 0.39$, $P = 0.004$) (16). Reliability of questionnaire in the students' sample was 0.70, and after six weeks, it was determined at 0.81 based on the test-retest method (17). In order to calculate the convergent validity of SS-A, the correlation coefficients among the factors together and with total score of scale were used. The results were indicative of significant correlations between the factors (social support from family, friends, spouse and others) ($P < 0.01$).

In SS-A, items replied with "True" and "False" alternatives were scored one and two points, respectively. Minimum and maximum scores of the scale were 0 and 23, respectively. Higher scores in SS-A were interpreted as greater social support, while lower scores were interpreted as inadequate social support.

Data analysis was performed in SPSS V.16, and P value of less than 0.05 was considered significant. Normally distributed data were presented as mean \pm standard deviation, and data with non-normal distribution were expressed as median and range. Moreover, comparison of the study groups in term of demographic characteristics was performed using T-test (normal variables) and Chi-square (non-

normal variables). In addition, correlations between variables were assessed using Pearson's (normal variables) and Spearman's correlation-coefficient (non-normal variables). Social support among pregnant and non-pregnant women was measured via independent-samples T-test.

Results

In total, 155 pregnant and 155 non-pregnant women were enrolled in this study. Demographic characteristics of the participants are shown in Table 1. No significant differences were observed between the study groups in terms of demographic characteristics.

In this study, total scores of social support were significantly lower in pregnant women compared to non-pregnant women. In addition, spouse support among pregnant women was significantly higher compared to non-pregnant women ($P < 0.01$). However, support from friends in non-pregnant women was significantly higher compared to pregnant women ($P < 0.05$). No significant differences were reported between the study groups in terms of family support and support from others (Table 2).

Among the demographic characteristics, only the employment status of the spouse had a significant association with the total score of social support in pregnant women ($r = 67.28$; $P < 0.01$). However, no such correlation was observed in non-pregnant participants. According to the correlations between the dimensions of social support and demographic characteristics of the study groups, a significant association was observed between spouse support and employment status ($r = 33.88$; $P < 0.01$), occupation of the spouse ($r = 124.21$; $P < 0.01$), and mother's availability ($r = 14.11$; $P < 0.05$) in pregnant women. However, no such correlation was reported in non-pregnant participants. Moreover, a significant association was found between spouse support and education status in both study groups (pregnant women: $r = 15.93$; $P < 0.05$, non-pregnant women: $r = 81.64$; $P < 0.01$).

According to our findings, family support in

Table 1. Comparison of pregnant and non-pregnant women in terms of demographic characteristics in healthcare centers of Zarqan city, Iran (2011)

| Variables | Pregnant | Non-pregnant | Chi-square or t-test | P-value |
|------------------------------------|-------------|--------------|----------------------|---------|
| Age, (Mean±SD) | 25.58± 4.41 | 32.13 ±7.32 | 3.43 | 0.35 |
| Age of spouse (Mean±SD) | 32.72± 7.32 | 38.05 ±8.77 | 2.11 | 0.36 |
| Education Status, N (%) | | | | |
| Illiterate | 0 (0) | 1 (0.6) | 0.56 | 0.74 |
| Diploma and lower | 141 (91) | 138 (89) | | |
| Bachelor's Degree and Above | 14 (9) | 16 (10.3) | | |
| Employment Status, N (%) | | | | |
| Unemployed | 147 (94.8) | 150 (96.8) | 0.40 | 0.57 |
| Employed | 8 (5.2) | 5 (5.2) | | |
| Education Status of Spouse, N (%) | | | | |
| Illiterate | 2 (1.3) | 4 (2.6) | 0.58 | 0.67 |
| Diploma and below | 141 (91) | 142 (91.6) | | |
| Bachelor's Degree and Above | 12 (7.7) | 9 (5.8) | | |
| Employment Status of Spouse, N (%) | | | | |
| Unemployed | 4 (2.6) | 3 (1.9) | .014 | .012 |
| Employee | 24 (15.5) | 38 (24.5) | | |
| Worker | 45 (29) | 32 (20.6) | | |
| Business | 82 (52.9) | 82 (52.9) | | |
| Father's Availability, N (%) | 134 (86.5) | 106 (68.4) | 5.92 | 0.11 |
| Mother's Availability, N (%) | 150 (96.8) | 138 (89) | | |

Table 2. Mean of social support and its associated dimensions in women referring to healthcare centers of Zarqan city, Iran

| Variables | Pregnant | Non-pregnant | P-value |
|------------------------------|------------|--------------|---------|
| Social support (total score) | 39.52±2.85 | 40.08±2.80 | 0.05 |
| Spouse | 14.54±1.12 | 14.02±1.56 | 0.01 |
| Family | 14.38±1.06 | 14.53±0.96 | 0.19 |
| Friends | 11.72±1.59 | 12.08±1.33 | 0.03 |
| Others | 13.41±1.18 | 13.54±1.09 | 0.31 |

pregnant women had a significant association with the occupation of the spouse ($r=35.42$; $P<0.05$), father's availability ($r=22.04$; $P<0.01$), and mother's availability ($r=14.69$; $P<0.05$). On the other hand, family support in non-pregnant women was significantly correlated with their education status ($r = 54.49$; $P < 0.01$).

In non-pregnant women, support from friends had a significant association with education status ($r=38.82$; $P<0.01$), while no such correlation was reported among pregnant women. Furthermore, a significant relationship was observed between the support from others and employment status in pregnant women ($r=14$; $P<0.05$), while no correlation was reported between support from others and demographic characteristics of non-pregnant participants.

Discussion

According to the results of this study, total scores of social support were significantly higher among non-pregnant participants compared to pregnant women. By contrast, one study indicated that perceived social support was not significantly different between pregnant and non-pregnant women. However, these findings were disregarded when the age and socioeconomic status of the participants were controlled (14).

In the current study, non-pregnant women participants enjoyed higher support from friends compared to pregnant women. On the other hand, spouse support among pregnant women was significantly higher compared to non-pregnant subjects. In this regard, the findings of Moshki et

al. indicated that pregnant women perceived higher social support from their families (18). In the present study, we added eight items to SS-A scale in order to measure the level of spouse support, while in the study by Moshki et al., the spouses of the subjects were categorized as family members. Findings of the present study are consistent with the results obtained by Moshki et al.

Support from the people around pregnant women, especially the spouse, gives expecting mothers a sense of hope and peace (18). Lower perception of social support in pregnant women could occasionally be attributed to the higher sensitivity of women during pregnancy. Pregnancy is a life-changing event for women and their spouses. Emotional distress in pregnant women has been known to increase the risk of adverse pregnancy outcomes in the mother and newborn (19). One possible reason for the higher perception of spouse support in pregnant women could be that husbands pay more attention to their wives due to the psychological and mental changes during pregnancy (20).

In the present study, no significant differences were reported in terms of social support in different subgroups of demographic characteristics (e.g. education status, employment status, education status of spouse, and employment status of spouse) between pregnant and non-pregnant women. It seems that as a psychological variable, perceived social support is independent of demographic variables and is not affected by changes in these factors. According to the results of the current study, there was no significant association between the social support and age of women, which is consistent with the results of previous studies (21-24).

Some studies have reported a significant relationship between perceived social support and age; correspondingly, it has been declared that perceived social support is lower in older women compared to younger ones (25, 26). None of the participants in the present study were elderly, and therefore, we could not compare the level of perceived social support in different age groups. Findings of the present study were indicative of a significant correlation between the spouse support and education status of women in both groups.

Accordingly, higher education level was associated with greater support from the spouses. This is in line with the results of some studies (11, 24, 26), whereas Haydari et al. and Ilias et al. reported no significant correlation between spouse support and education status (27-29). This inconsistency could be due to the variable education status of participants in different studies.

In the current research, we observed a significant association between the social support from spouse and others and employment status of pregnant women. However, no such correlation was reported in non-pregnant subjects. This could be due to the fact that spouses tend to pay more attention to working pregnant women. In another research by Oommen et al., a significant relationship was reported between the dimensions of social support and employment status of women (25, 29). However, other studies found no such correlation between perceived social support and employment status. This inconsistency could be due to the fact that the aforementioned studies evaluated individuals aged over 50 years who were mostly retired (22, 24).

In the current study, no significant correlation was observed between social support and number of family members in the two study groups. Broader social network is not necessarily associated with higher perception of social support (29), just as the size of family is not the most important determinant of care and support (30). In this regard, the findings of two studies have shown a positive association between perceived social support and number of family members. In the past, extended families could enjoy greater support from the other members. However, it should not be assumed that modern families cannot receive as much support since even these families devote all their resources to care for the members (27- 28).

Findings of the present study were indicative of a significant association between the support and education status of the spouse in non-pregnant women. However, no such correlation was observed among pregnant women. This could be due to the fact that pregnant women are focused on the support of their husband instead of their education status, which denotes the urgent need of these women for

adequate support. According to the results of the current study, there was a significant relationship between the employment status of spouse, total scores of SS-A, and support from the spouse and family in pregnant women.

In a study in Tehran (Iran) conducted by Heidari, the majority of cancer patients received the highest support from their spouses and families, followed by their friends, relatives, and colleague (29). Furthermore, the results of another research conducted on 512 nulliparous women indicated that most of these women recognized their spouses, mothers, and friends as the main sources of social support (31). In this regard, results of the present study revealed that among pregnant women, the most important sources of social support were the spouse, family, others, and friends. As for non-pregnant women, the most significant providers of support were reported to be the family, spouse, others, and friends, respectively.

Several researchers have denoted the key role of the spouse in providing the required support for pregnant women. The presence of the spouse enhances the sense of solidarity and belonging, which could largely influence the health and performance of pregnant women, as well as the quality and perception of social support. Strong family ties are considered as the most remarkable source of care since family members support each other indiscriminately. Family ties guarantee sympathy, empathy, and emotional comfort (24). Support from the spouse plays a pivotal role in the well-being of women (32). Therefore, spouses of pregnant women should receive training on the proper provision of support during this period.

The most important limitation of the current study was that the sampling was not random, and the cross-sectional design of the research did not allow the proper assessment of causal relationships between variables. In addition, the small sample size restricted the possibility of generalizing the findings.

Conclusion

According to the results of this study, the study groups were significantly different in terms of

the perceived social support from their spouse and friends, and total social support. However, no significant differences were observed between pregnant and non-pregnant women with regard to the social support in different subgroups of demographic characteristics (e.g. education status, employment status, education status of spouse, and employment status of spouse).

Conflicts of interest

None declared.

Authors' contributions

S Shahmohammadi and N Hamzavi Zarghani translated and drafted the manuscript. N Hamzavi Zarghani collected the data and prepared the data. Dr M Nazari was the co-researcher. Dr Z Shayeghian analyzed the data and edited the manuscript.

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Reference

1. Bayrami M, Zahmatyar H, Bahadori KJ. Prediction strategies to coping with stress in the pregnancy women with first experience on the based factors hardiness and social support. *Iran J Nurs Res* 2012; 7(27):1-9 (Persian).
2. Hajebi A, Faridnia P. The Relationship between mental health and social support in health staffs of Bushehr oil industry. *Iran South Med J* 2009; 12(1):67-74 (Persian).
3. Lau Y, Wong DF. The role of social support in helping Chinese women with perinatal depressive symptoms copes with family conflict. *J Obstet Gynecol Neonatal Nurs* 2008; 37(5):556-71.
4. Eagly AH, Crowley M. Gender and helping behavior: a meta-analytic review of the social psychological literature. *Psychol Bull* 1986; 100(3):283.
5. Reevy G. Sex-related differences in the social support-stress relationship. *Praeger handbook stress coping* 2007; 12:349-61.

6. Taylor SE, Klein LC, Lewis BP, Gruenewald TL, Gurung RA, Updegraff JA. Biobehavioral responses to stress in females: tend-and-befriend, not fight-or-flight. *Psychol Rev* 2000; 107(3):411-29.
7. Prezza M, Giuseppina Pacilli M. Perceived social support from significant others, family and friends and several socio-demographic characteristics. *J Commun Appl Soc Psychol* 2002; 12(6):422-9.
8. Robinson NS. Evaluating the nature of perceived support and its relation to perceived self-worth in adolescents. *J Res Adolesc* 1995; 5(2):253-80.
9. Abdollahzade RM, Hassanzadeh AM, Ahmadi SH, Taheri M, Hosseini MA. Relationship between social support with depression and anxiety during third trimester pregnancy. *Iran J Nurs Res* 2012; 7(26):1-10 (Persian).
10. Mohammadi A, Aghdam GA, Ranji S. Comparison of postpartum depression of working women and housewives and its relationship with social support and marital adjustment. *Procedia Soci Behav Sci* 2011; 30:1837-9 (Persian).
11. Elsenbruch S, Benson S, Rucke M, Rose M, Dudenhausen J, Pincus-Knackstedt MK, et al. Social support during pregnancy: effects on maternal depressive symptoms, smoking and pregnancy outcome. *Hum Reprod* 2007; 22(3):869-77.
12. Sedaghati P, Arjmand A, Sedaghati N. Does regular ergometer training have any effect on the pregnancy outcome? *Iran J Pediatr* 2006; 16(3):325-31 (Persian).
13. Emmanuel EN, Creedy DK, St John W, Brown C. Maternal role development: the impact of maternal distress and social support following childbirth. *Midwifery* 2011; 27(2):265-72.
14. Connelly CD. Hopefulness, self-esteem and perceived social support among pregnant and non-pregnant adolescents. *West J Nurs Res* 1998; 20(2):195-209.
15. Vaux A, Phillips J, Holly L, Thomson B, Williams D, Stewart D. The social support appraisals (SS-A) scale: studies of reliability and validity. *Am J Commun Psychol* 1986; 14(2):195-218.
16. Asgari P, Sharafodin H. Relationship between social anxiety, social support and a sense of hope and well-being of students. *N Find Psychol* 2010; 3(9):25-36 (Persian).
17. Abdifard S. Study of relationship between social support and the locus of control with adjustment in Ferdowsi University of Mashhad. [Master's Thesis]. Mashhad, Tarbiat Moalem University; 1996.
18. Moshki M, Cheravi K. Relationships among depression during pregnancy, social support and health locus of control among Iranian pregnant women. *Int J Soc Psychiatry* 2016; 62(2):148-55.
19. Glazier RH, Elgar FJ, Goel V, Holzappel S. Stress, social support, and emotional distress in a community sample of pregnant women. *J Psychosom Obstet Gynaecol* 2004; 25(3-4):247-55.
20. Nasreen HE, Kabir ZN, Forsell Y, Edhborg M. Prevalence and associated factors of depressive and anxiety symptoms during pregnancy: a population based study in rural Bangladesh. *BMC Womens Health* 2011; 11:22.
21. Geckova A, Van Dijk JP, Stewart R, Groothoff JW, Post D. Influence of social support on health among gender and socio-economic groups of adolescents. *Eur J Public Health* 2003; 13(1):44-50.
22. Rafii F, Rambod M, Hosseini FA. Perceived social support in hemodialysis patients. *Hayat* 2009; 15(1):5-12 (Persian).
23. Tovbin D, Gidron Y, Jean T, Granovsky R, Schnieder A. Relative importance and interrelations between psychosocial factors and individualized quality of life of hemodialysis patients. *Qual Life Res* 2003; 12(6):709-17.
24. Rambod M, Rafii F. Perceived social support and quality in Iranian hemodialysis patients. *J Nurs Scholarship* 2009; 42(3):242-9 (Persian).
25. Oommen H, Rantanen A, Kaunonen M, Tarkka MT, Salonen AH. Social support provided to Finnish mothers and fathers by nursing professionals in the postnatal ward. *Midwifery* 2011; 27(5):754-61.
26. Akouchakian SH, Roohafza HR, Mohammad Sharifi H. Relation between social support and coping with stress in nurses in psychiatric ward. *J Guilan Univ Med Sci* 2009; 18(69):41-6 (Persian).
27. Haydari S, Nouri Tajer M, Hosseini F, Ilanlou M, Golgiri F, Shirazi F. Survey of relationship family support and control of blood sugar in type 2 diabetics patients. *Salmand* 2008; 3(8):39-46 (Persian).
28. Ilias I, Tselebis A, Theotoka I, Hatzimichelakis E. Association of perceived family support through glycemic control in native Greek patients managing diabetes with diet alone. *Ethn Dis* 2004; 14(1):2.
29. Heidari S. Assessing size of social network and emotional support sources and related factors among cancer patients. *Iran J Nurs Res* 2009; 4(12-13):91-101 (Persian).
30. Kim IK. Social support for older person: the role of family, community and state in selected Asian countries. Expert group meeting on the regional preparations for the global review of

- Madrid plan of action on aging Bangkok, Thailand; 2007.
31. Leahy-Warren P, McCarthy G, Corcoran P. Postnatal depression in first-time mothers: prevalence and relationships between functional and structural social support at 6 and 12 weeks postpartum. *Arch Psychiatr Nurs* 2011; 25(3):174-84.
32. Najafi M, Mirhoseini SM, Lankarani MM, Assari S, Tavalalaie SA. Family satisfaction from point of view of diabetic and non-diabetic pares. *J Diabetes Metab Disord* 2004; 4:98.