RESEARCH ARTICLE

EXAMINATION OF RELATIONSHIP BETWEEN SOCIAL SUPPORT, DEPRESSIVE SYMPTOMS AND USE OF SOCIAL NETWORKS BY PREGNANT WOMEN

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ARTICLE DETAILS

ABSTRACT

The mother's having good mental health during pregnancy is important for the mother's and fetus's health. Lack of social support and staying away from social networks can increase the incidence of depression during pregnancy. The purpose of this study was to determine the relationship between social support, depressive symptoms and use of social network by pregnant women. In this descriptive cross-sectional study conducted in the Obstetrics Polyclinics of a training and research hospital, 819 healthy pregnant women whose gestational age was ≥16 weeks were included. To collect the data, the Descriptive Characteristics Form, Social Media Usage Characteristics Form, Multidimensional Perceived Social Support Scale (MSPSS) and Beck Depression Inventory (BDI) were used. In the study, it was determined that 77.5% of the pregnant women use social networking sites. The difference between the pregnant women who used social media and those who did not according to the presence of depression symptoms was found to be significant (p<0.05) In the study, it was determined that there was a statistically significant difference between pregnant women's MSPSS family, friend, special person subscale total score averages and BDI (p<0.05). it was determined that the pregnant women who did not show depression symptoms used social networking sites 0.65 times more than those who did (OR:0.65). Those with high special person MSPSS scores are 1.1 times more likely to use social networking sites than others (OR:1.1).

KEYWORDS

Pregnancy, Social Networking, Social Support, Depression

1. INTRODUCTION

Gestational depression is a mental disorder that adversely affects the health of the mother and fetus (Çalık and Aktaş, 2011; Muzik et al., 2009; Razurel and Kaiser, 2015; Baker and Yang, 2018). It is stated that one of the most important factors affecting psychosocial health during pregnancy is the level of social support that the woman receives (Abujilban et al., 2014; Bedaso, et al., 2021). Social support is the support provided by spouse, family, friends and social networks (Değirmenci, 2016). Studies have shown that pregnant women have a more positive pregnancy process with the support they receive from their social environment, they gain the role of motherhood more quickly by adapting to pregnancy and motherhood mentally and physically, and they experience fewer postpartum problems (Çalık, et al., 2009).

There are many social media platforms that are constantly developing and are widely accepted and used as a source of social support. These communication networks consist of many digital technologies that allow the dissemination of information, including social media such as Facebook, WhatsApp, Instagram, Twitter, LinkedIn, smartphones, websites, blogs(Lagan, et al., 2006,Ginja, et al., 2018) The use of social media is widely accepted due to the variety of social support, its accessibility to use seven/twenty-four (7/24), ease of access, and social acceptability of social media and internet access (Baker and Yang, 2018).

Today, with the widespread use of the internet, pregnant women are trying to reach a lot of information they need through social media (Bert et al., 2013). Especially, pregnant women use social media for many purposes such as joining a group, sharing with them, chatting with spouse, family and friends, getting information about pregnancy, shopping about pregnancy, sharing experiences with other pregnant women, and chatting about pregnancy (Sayakhot and Carolan-Olah, 2016; Malonia et al., 2013). In line with this information, it is necessary to understand and evaluate the effects of certain social relations and social media on the mental health of pregnant women (Sayakhot and Carolan-Olah, 2016).

In the literature, there are many separate studies on social media use, social support and depression during pregnancy (Çalık and Aktaş, 2011; Baker and Yang, 2018; Ginja, et al., 2018; Bödecs, et al., 2009; Aktaş and Çalık, 2015). However, the relationship between social media use and social support and depressive symptoms in pregnant women has not been adequately addressed. Revealing this relationship will help us understand how social media use and perceived social support affect depressive symptoms in pregnant women. This study aims to evaluate the relationship between social media usage characteristics, social support and depressive symptoms in pregnant women from a holistic perspective and to help identify women at high risk.

2. SUBJECTS AND METHODS

2.1 Population and Sample of The Research

This was a descriptive, cross-sectional study, the population of the research consists of all pregnant women (N=14.955, between 2016 and 2017). The study was conducted in the Obstetrics Polyclinics of a state hospital in the province of Kahramanmaras in the Eastern Mediterranean

Region of Turkey between 23 August and 30 November 2018. After the sample formula for computation of the minimum sample size from the group with known population [(n = Nz2pq/d2(N-1)+z2pq), (n = minimum sample size, N = Population size, z = confidence level at 95% (standard value of 1.96), p = guess for the expected proportion in the population, q =1.0 – p, d =tolerable margin), (N=14.955, p=0.5, q=0.5, d=0.05, t=1.96), the minimum sample size was calculated as 352 at the confidence interval of 95% for number of individuals required to be included in the population (Büyüköztürk et al., 2008; Zengin et al., 2021). We assumed an attrition rate of 10%, which corresponds to 35 participants, and thus the minimum sample size for the study was 352+35= 387. The minimum calculated sample size of 387 was obtained. However, a total of 1088 pregnant women were approached and 819 were included in the study a response rate of 75.2%. Of the pregnant women, 269 of 1088 were excluded from the study for various reasons not accepting to participate in the study, high risk pregnancy, incomplete filling in the data collection forms etc.). Despite the fact that the calculated minimum sample size for the study was 352, 819 pregnant women who gave consent were selected to increase the power of the study. The study sample comprised 819 pregnant women who accepted to participate in this study and matching the criteria. The pregnant women were selected randomly.

Criteria of pregnant women included in the study: Those who use the internet every day, between the ages of 18-35, have a single pregnancy, have a gestational age of 16 and above, do not have any risk factors (pre-eclampsia, gestational diabetes, intrauterine growth retardation, etc.) and have no systemic disease (diabetes mellitus, hypertension, cardiovascular diseases etc.).

2.2 Collection of Data

Personal Information Form and Social Media Usage Characteristics Form, Multidimensional Scale of Perceived Social Support (MSPSS) and Beck Depression Scale (BDI), which were prepared by the researcher using the literature, were used to collect the data.5 questions determining the demographic characteristics of pregnant women (age, education status of spouse and pregnant, employment status, income status), 2 questions determining their obstetric characteristics (week of pregnancy, whether the pregnancy is planned or not), and 9 questions determining the characteristics of using social networking sites (whether they use social networking sites or not, use, frequency and duration of use, sharing problems on social network sites, commenting on content, people they talked to, face-to-face meeting with those they share on social networking sites, which social networking sites and pregnancy-related social networking sites they use were asked. The data were collected from the pregnant women who came to the pregnant outpatient clinic by the researcher to be examined, using the face-to- face interview technique with the questionnaire method, and taking into account the examination anxiety of the pregnant women after the examination. The information form was piloted with 10 pregnant women to determine its ease of use and comprehensibility. There was no change in the form after the pre-implementation process.

2.3 Multidimensional Scale of Perceived Social Support (MSPSS)

The scale, which was developed by was adapted into Turkish by Eker and Arkar in 1995 (Eker et al., 2001;Eker et al., 2000; Zimet et al., 1988; Zimet et al., 1988;). The scale subjectively evaluates the adequacy of social support from three different sources and consists of 12 items. The scale is in 7-Point Likert type. It includes three groups related to the source of social support, each consisting of four items. These, Family (items 3, 4, 8 and 11), Friend (items 6, 7, 9 and 12) and Special Person (items 1, 2, 5 and 10) groups. The score to be obtained from the scale in each subscale is a minimum of 4 and a maximum of 12. The lowest total score that can be obtained from the scale is 12, and the highest score is 84. A high score from the scale indicates high perceived social support, and a low score indicates insufficient social support or insufficient perceived support. Eker et al. found the total Cronbach's Alpha coefficient of MSPSS to be 0.89 (Eker et al., 2001). In our study, the Cronbach's Alpha value of the scale was found to be 0.93.

2.4 Beck Depression Scale (BDI)

BDI was developed by Beck et al. in 1961 (Beck, et al., 1961). The adaptation of the scale to the Turkish people was done by Hisli in 1989 (Hisli, 1989). BDI is an assessment scale consisting of 21 items applied to measure the level of symptoms related to the cognitive, emotional and somatic states of the person, not the etiology of mental illnesses. The scale is 4- Point Likert type. Each item gets a score between 0-3 and their sum varies between 0-63.Depression levels according to BDI total score by Beck et al. in 1996; It was classified as no depression between 0-13, low

between 14-19, moderate between 20-28, and high degree of depression between 29-63. A high total score obtained from the scale indicates a high level of depressive symptoms (Beck, et al., 1996,Jesse and Graham, 2005). While the Turkish version of the BDI was being developed, scores ≥ 17 were accepted as the cut-off point for depressive symptoms. Cronbach's Alpha value of Hisli's BDI was found to be 0.80 (Hisli, 1989). In our study, the Cronbach's Alpha value of the scale was found to be 0.90.

2.5 Evaluation of Data

The data were evaluated using the Statistical Package for the Social Sciences (SPSS) 25.0 statistical package program. In statistical analysis; percentile distribution, arithmetic mean, standard deviation, Kolmogorov-Smirnov test, independent samples t-test, Chi-Square and Cronbach's Alpha reliability analysis tests and Backward Stepwise Logistic Regression analysis test were used. The results of the analysis were accepted at the 95% confidence interval, and the significance at the p<0.05 level.

2.6 Ethical Principles of the Study

Before initiating the study, the researcher received written permission from the ethical committee (2018/264) and from the hospital where this study was conducted. Before starting to collect the data, it was stated to the pregnant women who participated in the study that the information they provided would be protected in accordance with the Declaration of Helsinki, that they could participate in the study if they wanted, and that they could leave whenever they wanted, and those who volunteered were included. Written informed consent was obtained from the pregnant women.

2.7 Limitation and Generalizability of the Study

The limitation of the study is that the research sample consisted of only pregnant women who came to the obstetrics and gynecology policlinics of a public hospital and that the pregnant women were selected with the improbable random sampling method.

3. RESULTS

Table 1: Distribution of Pregnant Women's Use of Social Networking Sites and Their Characteristics

Usage of Social Networking Sites (N=819)	n	%
Using	635	**77.5**
Not Using	184	**22.5**
Frequency of Using Social Networking Sites During the Day (n=635)		
1-4 times	347	54.6
5-9 times	168	26.5
>10 times	120	18.9
Daily duration spent on Social Networking Sites / Hours (n=635)		
<1	144	22.7
1-2	380	59.8
>3	111	17.5
Sharing of Problems on Social Networking Sites n=635)		
Sharing	93	14.6
Not sharing	542	85.4
Commenting on Content on Social Networking Sites (n=635)		
Commenting	233	36.7
Not commenting	402	63.3
Face-to-face Meeting With People Met on Social Sharing Sites (n=635)		
Face-to-face	161	25.4
Not face-to-face	474	74.6
Use of Pregnancy-Related Social Networking Sites (n=635)		
Using	498	78.4
Not Using	137	21.6

The mean age of the pregnant women in the study was found to be 27.37±4.7 years. In the study, it was determined that 54.9% of the pregnant women were between the ages of 27- 35, 27.1% had primary school education, the education level of the spouses of 29.2% washigh

school. In addition, it was determined in the study that 81% of the pregnant women were not working and 68.9% of them had a medium income. The mean gestational week of the pregnant women was determined as 30.2±7.4. In the study, 61.4% of the pregnant women were between 27-37 weeks of gestation. It was determined that 71.1% of the pregnant women had a planned pregnancy.The distribution of usage characteristics of social networking sites by pregnant women is shown in table 1.

Purposes of Using Social Networking Sites Specific to Pregnancy * (n=635)

Getting information about pregnancy	471	62.1
Pregnancy-related shopping	123	16.2
Sharing experience with other pregnant women	94	12.5
Chatting about pregnancy	70	9.2

Social Networking Sites Used (n=635)

WhatsApp	587	41.1
Facebook	371	25.9
Instagram	345	24.1
Twitter	72	5.1
Other (Google, YouTube)	29	2.2
LinkedIn	23	1.6

* Marked more than one option.

In the study, it was determined that 77.5% of the pregnant women use social networking sites. While the average frequency of using these sites during the day was 5.3±4.7, it was determined that 54.6% of them used it very little or 4 times table 1.

While the average time of daily use of social networking sites by the participants was 1.9±0.6, it was determined that 59.8% of them spent less than one or two hours a day on these sites. In the study, it was found that 14.6% of the pregnant women shared their problems on social networking sites, and 36.7% of the pregnant women commented on the content on social networking sites. In the study, it was determined that 25.4% of the pregnant women met face-to-face with those they shared on social networking sites. In the study, it was determined that 78.4% of the pregnant women use social networking sites related to pregnancy, 62.1% of the pregnant women use social networking sites for information about pregnancy and 16.2% use them for shopping related to pregnancy. The distribution of the social networking sites used by the pregnant women was found to be 41.1% WhatsApp, 25.9% Facebook, 24.1% Instagram, 5.1% Twitter table 1.

Comparison of pregnant women's use of social networking sites and their depressive symptoms is shown in Table 2. According to these results, 31% of pregnant women who use social networking sites and 50% of pregnant women who do not use social networking sites have depressive symptoms. The difference between the pregnant women who used social media and those who did not according to the presence of depression symptoms was found to be significant (p<0.05) (Table 2). When the pregnant women who met face-to-face with those they shared on social media compared with the pregnant women who did not, depressive symptoms were found in 37.6% of the pregnant women who met face-to-face, while more depressive symptoms were found in 62.4% of the pregnant women who did not (p<0.05) table 2.

Table 2: Comparison of the Use of Social Networking Sites of Pregnant Women and the Frequency of Depressive Symptoms (S=819)

Presence of depression (BDI)			
	Have Depressive Symptoms	**No Depressive Symptoms**	**X2/p***
Usage of Social Networking Sites			
Using	197 (31.0)	438 (69.0)	X2=22.47 **p<0.001**
Not Using	92 (50.0)	92 (50.0)	
Frequency of Using Social Networking Sites During the Day(n=635)			
1-4 times	105 (53.3)	242 (55.3)	
5-9 times	51 (25.9)	117 (26.7)	X2=0.684 p>0.05
>10 times	41 (20.8)	79 (18.0)	
Daily duration (hours) spent on Social Networking Sites (n=635)			
1<	54 (27.4)	90 (20.5)	
1-2	111 (56.4)	269 (61.5)	X2=3.656 p>0.05
3>	32 (16.2)	79 (18.0)	
Sharing of Problems on Social Networking Sites (n=635)			
Sharing	33 (16.8)	60 (13.7)	X2=1.065 p>0.05
Not sharing	163 (83.2)	378 (86.3)	
Commenting on Content on Social Networking Sites (n=635)			
Commenting	81 (41.3)	151 (34.5)	X2=2.740 p> 0.05
Not commenting	115 (58.7)	287 (65.5)	
Face-to-face Meeting With People Met On Social Sharing Sites (n=635)			
Face-to-face	74 (37.6)	87 (19.9)	X2=22.495 **p<0.001**
Not face-to-face	123 (62.4)	351 (80.1)	
Use of Pregnancy-Related Social Networking Sites (n=635)			
Using	112 (56.0)	221 (50.8)	X2=1.483 p>0.05
Not using	88 (44.0)	214 (49.2)	

*Chi square Test /p<0.05

According to these results, the social support score received by the pregnant women from the special person was higher than the social support score they received from their family and friends table 3.

The mean total BDI score of the pregnant women was found to be 15.15±9.87. In our study, the mean BDI depressive symptom score of the pregnant women in this group was found to be 25.74±8.2. In the study, it was determined that there was a statistically significant difference between pregnant women's MSPSS family, friend, special person subscale total score averages and BDI (p<0.05). According to these results, as the social support scores of the pregnant women from family, friends and spouses increased, the incidence of depressive symptoms decreased table 3. The comparison of the use of social networking sites and the MSPSS subscale score averages is shown in table 3.

Table 3: Comparison of MSPSS Subscale Scores of Pregnant Women with Depressive Symptoms and status of Using Social Networking Sites (n=819)

Subscale of MSPSS	X̄ ±SS	Minimum	Maximum	
Family	23.00±5.15	4	28	
Friend	18.70±6.69	4	28	
Special Person	23.18±4.77	4	28	
Total MSPSS	**64.88±16.62**	**12**	**84**	
BDI	**X̄ ±SS**			
No Depressive Symptoms (<17)	9.36±4.3	0	16	
Depressive Symptoms (≥17)	25.74±8.2	17	64	
Total	**15.15±9.87**	**0**	**64**	
BDI/ MSPSS	**Total**	Family	Friend	Special Person
	X̄ ±SS	X̄ ±SS	X̄ ±SS	X̄ ±SS
Depressive Symptoms (≥17)	57.05±18.95	20.58±6.29	15.58±7.03	20.89±5.63
No Depressive Symptoms (<17)	69.14±13.35	24.31±3.82	20.40±5.85	24.43±3.68
t/p	**10.62/0.001**	**10.55/0.001**	**10.48/0.001**	**10.83/0.001**
Status of Using Social Networking Sites / MSPSS				
Yes	66.95±15.16	23.65±4.67	19.45±6.26	23.85±4.23
No	57.75±19.25	20.74±6.04	16.13±7.47	20.88±5.74
t/p	**6.90/0.001**	**6.94/0.001**	**6.06/0.001**	**7.71/0.001**

Independent Samples t-test

In the study, while the mean MSPSS family subscale score of pregnant women was 23.65±4.67 in those who used social networking sites, it was 20.74±6.04 in those who did not. While the mean MSPSS private person subscale score of pregnant women was 23.85±4.23 in those who used social networking sites, it was 20.88±5.74 in those who did not. A statistically significant relationship was found between the use of social networking sites and the mean scores of the MSPSS subscales (p<0.05) table 3. According to these results, as the use of social networking sites by pregnant women increased, their status of receiving social support also increased.

The logistic regression analysis result created with the use of social networking sites and the total and subscales of BDI and MSPSS are presented in table 4.

Table 4: Further Analysis of Factors Associated with Social Networking Site Usage Status *

Risk Factors	β	SEa	dfb	p	ORc	95% Cld
BDI (Referent: Depressive Symptoms)						
No Depressive Symptoms	-0.421	0.187	1	0.024	0.65	0.455-0.947
MSPSS						
Special Person	0.106	0.018	1	0.001	1.11	1.072-1.152

* Backward stepwise Logistic Regression, SEa: Standard Error, dfb: Degree of freedom, ORc: Odd's ratio, Cld: Confidence interval

According to the results of the analysis, it was determined that the pregnant women who did not show depression symptoms used social networking sites 0.65 times more than those who did (OR:0.65). Those with high special person MSPSS scores are 1.1 times more likely to use social networking sites than others (OR:1.1).

4. DISCUSSION

Social support systems ensure that the pregnant women are in good cognitive, emotional and social condition and facilitate a healthy pregnancy process (Aktaş and Çalık, 2015). Based on the rapidly increasing use of social media and its impact on society, women's social support networks are gradually expanding during pregnancy. Pregnant women also receive social support from social media, which are social support networks other than family, friends and spouses (McDougall, et al., 2016,Moshki and Cheravi, 2016). Lack of social support during pregnancy may be a risk factor for the emergence of depressive symptoms (Sayakhot and Carolan-Olah, 2016). The findings obtained from the research conducted to investigate the relationship between the use of social networking sites by pregnant women and social support and depressive symptoms were discussed in line with the literature.

Use of social networking sites in general; includes checking the page, sharing or researching information, posting photos or commenting on Facebook or other social networks (Salih, 2018). In our study, nearly three-quarters of the pregnant women reported that they used social networking sites on the Internet table 1. Gao et al. found the rate of use of social networking sites by pregnant women as 91.9%, and Hadımlı et al. found 73.9% (Gao et al., 2013; Hadımlı et al., 2017). The findings of these study are similar to our findings.

In our study, it was determined that more than half of the pregnant women use social network 1-4 times a day and spend approximately 1-2 hours table 1. In their study, Hadımlı et al. found that 58.2% of pregnant women spend an average of 3 hours a day on social networks (Hadımlı et al., 2017). Larsson, on the other hand, found that 91% of pregnant women use social networks 2-3 times a day (Larsson, 2009). The findings of our study are similar to those of Hadımlı et al. and Larsson.

In the literature, it has been observed that pregnant women generally use social networking sites to obtain information about pregnancy (Gao et al., 2013; Sinclair et al., 2018). In our study, more than half of the pregnant women reported that they accessed information on many pregnancy-related issues by using social networking sites table 1. Lupton 57%, Gao et al. 88.7%, Sinclair et al. 76% found that pregnant women mostly used the internet as a source of information(Gao et al., 2013; Sinclair et al., 2018; Lupton, 2016). Social media gives pregnant women the opportunity to easily access a lot of information from where they are (Baker and Yang, 2018). There were differences between the findings of our study and the findings of previous studies. These differences may be due to the internet opportunities offered to the people by their countries and the different cultural characteristics of women.

In our study, it was found that less than half of the pregnant women shared their problems on social networking sites, and one-third commented on the content on social networking sites. table 1. Similar to our study; Hadımlı et al. found that 51.2% of pregnant women shared their problems on social networking sites, and Tağ Kalafatoğlu found in her study that pregnant women mostly shared their problems with each other and others on social networking site and also commented on the contents (Tağ Kalafatoğlu, 2015). In the study conducted by Baker and Yang, 43% of pregnant women use social media to communicate with other mothers, 99% use social media to answer parenting questions, 89% use social media about pregnancy and parental roles, 84% use social media by chatting with their friends and stated that they use it as social support. The findings of the study by Baker and Yang were similar to the purposes of using social media by the pregnant women in our study, but the rate of using social media was found to be higher (Baker and Yang, 2018). In this study, the fact that pregnant women use social media more than our study may be due to the fact that there are more internet opportunities at home and workplaces and cultural differences.

In our study, it was determined that almost half of the pregnant women use WhatsApp as a social networking site, one fourth use Facebook, one

fourth use Instagram, and very few pregnant women use Twitter and YouTube table 1. In the study conducted by Harpel, 69.4% of the pregnant women shared on Facebook, and in the study of Rodger et al., they found that 89% of the pregnant women used Facebook, 20% used YouTube, and 6% Twitter (Rodger et al., 2013; Harpel, 2018). In our study, the rate of use of social media by pregnant women was found to be lower than the rate of studies by Harpel, Rodger et al. It is considered that this situation is due to the strong internet infrastructure in the countries where the research was conducted, the fact that it is free to use, education, geographical and cultural differences.

In our study, when the characteristics of the use of social networking sites and the incidence of depressive symptoms were compared, one third of the pregnant women who use social networking sites and half of the pregnant women who do not use social networking sites have depressive symptoms. Depression symptoms were more common in pregnant women who did not use social media (p<0.05) table 2. Although the results of our study concluded that social media has an effect on receiving social support and reducing depression symptoms in pregnant women, no significant relationship was found between social media use and mental health in pregnant women in the study conducted by Ginja et al. (Ginja et al., 2018). In addition, in the study of Smith et al., although pregnant women stated that they frequently used social media for information seeking, psychological and social support, it was found that use of social media have a negative effect on their psychological health (Smith et al., 2020). In the study of Lauren et al. with adolescents, no relationship was found between social media use and depression (Jelenchick et al., 2013).

In the study of Banjanin et al., statistically positive relationship was found between social media use and depression (Banjanin et al., 2015). In other words, as the use of social media increases, the level of depression also increases. The results of this study were not similar to our study findings. This may be due to the different characteristics of the study groups and the use of different scales. Social media can be beneficial for pregnant women by providing information and creating opportunities such as being a part of a community of women going through a similar life transition (Shaw and Gant, 2004). Given this situation, more research is needed to understand why, for some individuals, online interactions can have a negative impact on their psychological health.

In our study, when the pregnant women who met face-to-face with those that they shared on social media compared with the pregnant women who did not, depressive symptoms were found in 37.6% of the pregnant women who did and 62.4% of the pregnant women who did not meet face-to-face (p<0.05) table 2. This finding suggests that face-to-face support through social media is effective in reducing depression symptoms during pregnancy. As emphasized in studies, face-to-face meetings of pregnant women with people they meet on social media provide the opportunity to chat in the same environment and be with people they like, and may also be beneficial for mental health (McDougall et al., 2016; Moshki and Cheravi, 2016).

In the study conducted by Shaw et al., it was found that loneliness and depression levels decreased significantly, and perceived social support and self-esteem increased significantly in people that use internet (Shaw and Gant, 2004). Wright et al. examined the effect of social networking site Facebook and face-to-face social support networks on depression among university students. The study results showed that, although both face-to-face and Facebook social support satisfaction results may be associated with a reduction in people-reported depression scores, face-to-face support network satisfaction had a greater effect than Facebook support in reducing depression (Wright, et al., 2013). These results support our study.

In our study, no significant relationship was found between the frequency of using social networking sites during the day, the time/hour they spent during the day, the sharing of problems, commenting on the contents, using social networking sites related to pregnancy with the presence of depression symptoms (p > 0.05) table 2. In the study of Banjanin et al., Lauren et al. with adolescents, no relationship was found between the duration of social media use and the presence of depression symptoms. The results of this study are similar to the results of our study.

In our study, it was determined that pregnant women received the highest level of social support from their spouses and families table 3. In the study of Metin and Pasinlioğlu, the total MSPSS score of the pregnant women was 63.883±14.49, and the mean scores of the social support scale subscales were respectively; family 23,032±5.21, friend 17,660±7.50, special persons 23,190±4.77 (Metin, 2014). In the study conducted by Aktaş and Çalık, the social support scale total score of pregnant women was 67.89 ± 14.26, the social support scale subscale mean score was found as 24.10 ±

5.59 for family, 19.22 ± 7.19 for friend, 24.63 ± 5.29 for special persons (Aktaş and Çalık, 2015). In the study conducted by Bäckström et al., the mean total score of the social support scale during pregnancy was 74.2 ±10.2, the mean subscale scores were respectively; family 24.2±5.0, friends 23.5±4.6, and special persons 26.5±3.0 (Bäckström, et al., 2018). The findings we obtained in our study is in parallel with the findings of Aktaş and Çalık, Bäckström et al., Baker and Yang (Baker and Yang, 2018; Aktaş and Çalık, 2015; Bäckström et al., 2018). In our study, depressive symptoms were found in 35.3% of the pregnant women table 3. The prevalence of depression during pregnancy in different cultures around the world was found to be between 17.9% and 41.2% (Moshki and Cheravi, 2016; Rahman et al., 2007; Josefsson et al., 2001; Bowen and Muhajarine, 2006; Li et al., 2018; Bennett et al., 2004; Ryan et al., 2005; Azami et al., 2018). In studies conducted on pregnant women in Turkey, Yılmaz and Beji found depressive symptoms in 53.5% Sevindik and Yılmaz 36% Karaçam and Ançel 27.3% during pregnancy (Yılmaz and Beji, 2010; Sevindik, 2005; Karaçam and Ançel, 2009). The prevalence survey results of depressive symptoms during pregnancy differ due to different sampling methodologies, varying measurement tools, and cut-off points (Liu et al., 2020).

Scientific studies have identified low social support as a risk for depression during pregnancy (Lee et al., 2007). In our study, it was determined that there was a statistically significant difference between pregnant women's MSPSS family, friend, special person subscale total score averages and BDI (p<0.05). According to these results, as the social support scores of the pregnant women respectively from family, friends and spouses increased, the incidence of depressive symptoms decreased table 3.

In our study, the mean MSPSS total and subscale scores of pregnant women were found to be low in those with depressive symptoms and high in those without depressive symptoms table 3. This shows that the social support of pregnant women with depressive symptoms is low. In the study of Albuja et al., it was concluded that pregnant women with low social support experience more depression symptoms (Albuja et al., 2017). Lau, Yin, and Wang found in their research that low social support is an important risk factor for prenatal depression (Lau and Keung, 2007). In addition, in the study conducted by Aktaş and Çalık, they found that the mean depressive symptom score was low in those with high social support (Aktaş and Çalık, 2015). The results of this study are similar to our findings. In the study of Abujilban et al., no significant relationship was found between the status of receiving social support and the reduction of depression symptoms. The result of this study contradicts the results of our study (Abujilban et al., 2014). We can think that this difference is due to the measurement tool or traditional women's roles in family structures. Adequacy of social support systems during pregnancy; by making women feel good psychosocially, it facilitates their adaptation to motherhood and facilitates coping with depressive symptoms during pregnancy (Oscarsson et al., 2018).

As a result of the logistic regression analysis, it was determined that the pregnant women who did not show depression symptoms used social networking sites 0.65 times more than those who did (OR:0.65). While depressive symptoms were less common in pregnant women using social network sites in our study, it was found in the study of Ginja et al. that social media use did not have a positive effect on the occurrence of depressive symptoms (95% CI 0.22 to 0.38) (Ginja, et al., 2018). In different studies, it has been shown that the use of social networking sites contributes positively to the physical and mental health of pregnant women. It is thought that this may be due to the use of different measurement tools in studies. In addition, different results have been obtained according to the trimesters of pregnancy in such studies (Ginja et al., 2018; Albuja et al., 2017). In the study of Bessière et al., they found that using social media for health purposes increased the symptoms of depression, whereas using social media to communicate with friends and family decreased the symptoms of depression (Bessière et al., 2010). This finding supports the idea that the internet is a way to strengthen and maintain social ties, as in our study.

As a result of the logistic regression analysis performed in our study, it was determined that the MSPSS special person score (OR:1.1) increased 1.1 times in pregnant women who used social networks compared to those who did not use social networks table 4. The mean MSPSS subscale scores of the entire sample of our study were 23.18±4.77 for special persons, 23.00±5.15 for family, and 18.70±6.69 for friends, respectively. If we look at the MSPSS special person score in our study, the pregnant women received the most social support from the special person. Adding pregnancy-related topics to women's previous social media usage purposes getting information about pregnancy, shopping about pregnancy, sharing experiences with other pregnant women, chatting

about pregnancy indirectly increased the rate of use of social media. In our study, pregnant women who use social media may have increased the level of social support they receive by sharing the information they receive from social media with people they define as special persons or spouses.

In the study of Ginja et al., no significant relationship was found between the use of social networks and the mean MSPSS score (Ginja et al., 2018). This difference may be due to family structures or cultural differences. In the study of Li et al., it was found that pregnant women received the most support from their spouses and frequently used social networks (Li et al., 2018). In Sancar's study, it was determined that women who received social support from special persons used social media more during the day (Sancar, 2017). These results are similar to our study results. Most of the studies are on perceived social support during pregnancy and a limited number of studies have been found specifically investigating the relationship between spousal support and social media use during pregnancy.

5. CONCLUSION

In the study, it was found that pregnant women who use social networking sites receive more social support from their spouses and families than those who do not, and more depressive symptoms are observed in pregnant women who do not use social networking sites. Increased social support may improve maternal mental health during pregnancy and this relationship should be evaluated in longitudinal studies.

RESULTS

The results of our study: consistent with previous studies, it showed that as social support from a special person, family, and friend increased during pregnancy, it was associated with a reduced likelihood of depression. In addition, it was found that pregnant women who do not use social networking sites have more depressive symptoms than those who use them. In addition to these results, social media users received more social support from special persons than from family and friends. Early interventions to strengthen social support during pregnancy, particularly support from the spouse, can improve maternal mental health during and after pregnancy.

RECOMMENDATIONS

According to the results of our research, due to the widespread use of the internet today, health professionals should carefully evaluate pregnant women in terms of the purposes of using social networking sites, social support and depressive symptoms. To date, research results on this subject have revealed different findings about the relationship between social media use and mental health. There is a need for more evidence-based research investigating the effects of social support from social networking sites and support from family, friends and special persons during pregnancy on depression. Further studies should be conducted using different populations and different regions that require long-term follow-up on this issue.

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