Araştırma Sunumu / Research Article

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Gebelerin Psikososyal Sağlık Durumları ve Sağlık Uygulamalarının Değerlendirilmesi/
Evaluation of Psychosocial Health Status and Health Practices of Pregnant Women

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Öz

Amaç: Bu çalışma, gebe kadınların psikososyal sağlık durumlarını ve sağlık uygulamalarını değerlendirmek amacıyla yapıldı. Gereç ve Yöntemler: Tanımlayıcı-karşılaştırmalı tipteki araştırma, Zonguldak Kadın Doğum ve Çocuk Hastalıkları Hastanesi'nin Gebe Polikliniği'nde 04.12.2012-04.03.2013 tarihleri arasında yürütüldü. Çalışmaya toplam 1086 gebe katıldı. Veriler Gebe Bilgi Formu, Gebelikte Psikososyal Sağlığı Değerlendirme Ölçeği ve Gebelikte Sağlık Uygulamaları Ölçeği kullanılarak toplandı. Verilerin değerlendirilmesinde sayı ve yüzde değerleri, student t testi, Mann-Whitney U testi, Tek Yönlü Varyans Analizi, Kruskal-Wallis varyans analizi ve korelasyon analizi kullanıldı. Bulgular: Bu çalışmada, gebelerin psikososyal sağlık durumları ile sağlık uygulamaları arasında pozitif yönde bir ilişki bulunmaktadır ($p<.050$). Bununla birlikte, gebelerin psikososyal sağlık durumları ve sağlık uygulamaları gebelerin bazı özelliklerine (yaş, medeni durum, aile tipi, eğitim düzeyi, çalışma durumu, eşin eğitim düzeyi, eşin çalışma durumu, sosyal güvence varlığı, ekonomik gelir, çocuk sayısı, düşük ve küretaj sayısı, kronik hastalık durumu, gebelik öncesi Beden Kitle İndeksi, gebelik sayısı, gebelik sürecini planlama durumu, gebelik ile ilgili komplikasyon durumu ve sosyal destek durumu) göre anlamlı farklılıklar göstermektedir ($p<.050$). Sonuç ve Öneriler: Gebe izlemlerinde fiziksel değerlendirmelerin yanı sıra gebelerin psikososyal sağlık durumları ve sağlık uygulamalarının değerlendirilmesi, riskli durumların erken dönemde tanılanarak koruyucu ve tedavi edici hizmetlerin sağlanması önerilmektedir.

Anahtar Kelimeler: Gebe, Psikososyal Sağlık, Sağlık Uygulamaları

Abstract

Aim: This study was performed to evaluate psychosocial health status and health practices of pregnant women in Turkey. Metarials and Methods: This comparative descriptive study was conducted at a pregnancy polyclinic of Zonguldak Maternity and Children's Hospital in T between 12.04.2012-03.04.2013. A total of 1086 pregnant women participated in the study. Data were collected by using Pregnant Information Form, Pregnancy Psychosocial Health Assessment Scale and Health Practices Questionnaire in Pregnancy-II. Numerical and percentage values, student t test, Mann Whitney-U test, One-Way Analysis of Variance, Kruskal-Wallis variance analysis and correlation analysis were used for data analysis. Results:

In this study, there is a positive correlation between psychosocial health status and health practices of pregnant women ($p<.050$). However, psychosocial health status and health practices of pregnant women show significant differences based on some characteristics of pregnant women such as age, marital status, family type, education level, employment status, presence of social insurance, economic income, number of children, number of abortion and curettage, chronic disease status, Body Mass Index before pregnancy, number of pregnancy, pregnancy planning status, complication associated with pregnancy and social support ($p<.050$). Conclusion and suggestions: Besides physical assessments, evaluation of psychosocial health status and health practices of pregnant women, early diagnosis of risky conditions and provision of protective and therapeutic services are recommended during pregnancy follow-ups.

Keywords: Pregnant, Psychosocial Health, Health Practices

1. Introduction

Pregnancy is a developmental period consisting of important physiological and psychosocial changes during a woman's life (Eskici, Demir-Akca, Atasoy, Arıkan, & Harma, 2012; Vırıt, Akbaş, Savaş, Sertbaş, & Kandemir, 2008). When adaptation to these changes occurring during pregnancy period cannot be achieved, health problems that are threatening the health of the mother and fetus/newborn emerge (Dejin-Karlsson & Ostergren, 2003; Gözüyeşil, Şirin, & Çetinkaya, 2008). Pregnancy is a period that highlights all emotional, vital, mental and behavioural expectations, conflicts, hopes and desires (Gözüyeşil et al., 2008; Kuğu & Akyüz, 2001). During this period, there is a high risk of encountering several factors that may create anxiety and stress(Eskici et al., 2012; Silva et al., 2012; Vırıt et al., 2008; Yeşilçiçek Çalık & Aktas, 2011; Yeşiltepe-Oskay, 2004). Anxiety and stress during pregnancy period negatively affect psychosocial health of the pregnant women increase delivery and postpartum complications and negatively affect the health of the newborn (preterm labor, preeclampsia, difficult delivery, necessity for more surgical intervention during delivery, small fetus according to gestational age, newborn with a low birth weight and low apgar score, etc.) (Matthey, 2005; Yeşilçiçek Çalık & Aktas, 2011; Yıldız, 2011). In terms of characteristics among risk factors for anxiety and stress that have a role in the impairment of health during pregnancy, hormonal changes (Bahar, 2006; Taşkın, 2017), age, marital status, number of children, education level, trimester of pregnancy (Caliskan, Oncu, Kose, Ocaktan, & Ozdemir, 2007; Cornelius, Goldschmidt, DeGenna, & Day, 2007; Çakır & Can, 2012 (online publication); Evans, Heron, Francomb, Oke, & Golding, 2001; Fisher et al., 2012), presence of previous depression history, marriage-partner relationship, employment status, low economic level or economic problems, negative life experiences, unwanted/unplanned pregnancy, spontaneous abortion history, new difficulties and requirements that are brought by pregnancy status, anxiety about fetus and high pregnancy stress are emphasized(Bahar, 2006; Carroll et al., 2005; Fisher et al., 2012; Harrison & Sidebottom, 2008; Kuğu & Akyüz, 2001; Midmer, Bryanton, & Brown, 2004; Okanlı, Tortumluoğlu, & Kırpınar, 2003; Vırıt et al., 2008). In addition to these features, there are some sources indicating that low self-respect, tendency for negative thinking, lack of social and emotional support during pregnancy period and social isolation are also effective(Blackmore et al., 2006; Carroll et al., 2005; Fisher et al., 2012; Karacam & Ancel, 2009; Kuğu & Akyüz, 2001; Matthey, 2005; Vırıt et al., 2008). Moreover, it is suggested that domestic violence, consumption of alcohol, cigarette or stimulating substance during pregnancy also have a role (Blackmore et al., 2006; Harrison & Sidebottom, 2008; Kuğu & Akyüz, 2001; Midmer et al., 2004).

It is also possible to see pregnancy period as a crisis period that requires an adaptation to the changes and new roles in a woman's life. As this crisis period provides development, it may also become a problem that creats adaptation difficulties. A woman should firstly accept her pregnancy and future role of motherhood in order to adapt to pregnancy period (Gözüyeşil et al., 2008; Mermer, Bilge, Yücel, & Çeber, 2010). This acceptance is affected by beliefs and attitudes of the woman, her understanding of roles and responsibilities and her relationships and behaviours (Gözüyeşil et al., 2008). During this period, psychosocial support provided by husband, family and/or friends relieves pregnant woman emotionally and cognitively, helps her to take more advantage of social resources and to cope with stress factors and anxiety more easily, and facilitates her adoption of pregnancy and role of motherhood (Elsenbruch et al., 2007; Mermer et al., 2010; Okanlı et al., 2003; Vırıt et al., 2008). In contrary to this condition, lack of psychosocial support negatively affects the adaptation to pregnancy and the role of motherhood, and increases the level of anxiety and stess (Elsenbruch et al., 2007; Vırıt et al., 2008; Westdahl et al., 2007). In addition, it is indicated that lack of psychosocial support affects the life style of the mother by impairing mental health during pregnancy and postpartum period, impairs dietary habits and causes an increase in the consumption of cigarette, alcohol and substances (Harley & Eskenazi, 2006; Heaman, Gupton, & Moffatt, 2005; Vırıt et al., 2008).

Health practices of pregnant woman also play an important role in pregnancy outcomes for both mother and fetus/newborn. Health practices can be defined as activities of the pregnant woman that may affect pregnancy outcomes including her own health and the health of the fetus/newborn (Dejin-Karlsson & Ostergren, 2003; Er, 2006; Lindgren, 2003; Lindgren, 2005). High-quality health practices are linked to positive pregnancy outcomes, whereas risky health practices are associated with poor outcomes (Lindgren, 2003; Lindgren, 2005). High-quality health practices that have been identified as important for positive pregnancy outcomes include obtaining prenatal care; eating well and gaining the right amount of weight; exercising regularly; obtaining dental care; learning about pregnancy and birth; not smoking; not using alcohol, illegal substances, and many over-the-counter drugs; and avoiding risky sexual practices or exposure to other infectious agents (Er, 2006; Lindgren, 2003; Lindgren, 2005; Yanikkerem, Ay, & Piro, 2013). Risky health practices, such as smoking, alcohol or illegal drug use, and low weight gain, are associated with newborn complications such as prematurity, congenital abnormalities, or low birth weight of the newborn (Lindgren, 2005). It was also found that health practices affected maternal-fetal connection, depression and systematically life conditions (Lindgren, 2003). Therefore; health practices that are crucial for pregnancy outcomes should be diagnosed during prenatal care and the mother should be gained high-quality health practices (Lindgren, 2005).

As seen above, health practices during pregnancy may also be effective on psychosocial health as psychosocial health may affect the course of pregnancy. As physiological reactions during pregnancy, recognition and prevention of psychosocial reactions and health practices are of importance for the reduction of their effects on the health of mother and fetus/newborn and for the development of protective mental health services. While a medical evaluation is performed during pregnancy follow-ups, evaluation of psychosocial health status and health practices of pregnant women besides physical assessment is important in terms of a holistic approach (Matthey, 2005; Midmer et al., 2004). In Turkey, health professionals generally focus on physiological changes of pregnancy during pregnancy follow-ups; psychosocial side of pregnancy and health practices of pregnant women remain out of attention and observation area as long as a significant problem develops. Therefore, this study was

performed in order to evaluate psychosocial health status and health practices of pregnant women in Turkey and the relationship between them.

2. Materials and Methods

2.1. Study type

This was a comparative descriptive study.

2.2. Study universe and sample

The study was conducted at a pregnancy polyclinic of Zonguldak Maternity and Children's Hospital in Turkey between 12.04.2012 – 03.04.2013. Eligibility criteria were designed to determine the participants. According to the eligibility criteria, pregnant women who admitted to pregnancy polyclinics of the hospital for routine antenatal consultation, who did not have any psychiatric diagnosis and who approved to participate in the study were included in this study. Eligibility criteria for psychiatric diagnosis, we only asked to pregnant women whether they had a psychiatric diagnosis or not. In accordance with eligibility criteria, 1086 pregnant women participated in the study.

2.3. Instruments

2.3.1. Pregnant information form. There are 23 questions generated for the assessment of sociodemographic characteristics, health and pregnancy history of pregnant women.

2.3.2. Pregnancy psychosocial health assessment scale (PPHAS). PPHAS was developed by Yıldız (2011) in order to assess psychosocial health status of the pregnant women. The scale has six subdimensions including characteristics regarding pregnancy and partner relationship, characteristics regarding anxiety and stress, characteristics regarding domestic violence, characteristics regarding requirement for psychosocial support, familial characteristics and characteristics regarding physical-psychosocial changes during pregnancy. The scale is composed of 46 items. Mean value was calculated by dividing total score obtained from the scale by item number, and a result between 1 and 5 was obtained during assessment. Approximation of the total score from 5 to 1 shows that there is a problem in psychosocial health in pregnancy at that level, and 1 points indicates that psychosocial health is very bad. Cronbach alpha value for the whole scale was found to be .94 (Yıldız, 2011). In this study, Cronbach alpha value was found to be .96.

2.3.3. Health practices questionnaire in pregnancy-ıı (HPQ-II). HPQ-II was developed by Lindgreen (2005) in order to evaluate the health practices in pregnancy regarding the results of pregnancy. The HPQ-II is a 34 item self-administered questionnaire designed to measure the degree to which a pregnant woman: balances rest and exercise, takes recommended measures to prevent illness and injury, implements recommended guidelines for nutritional/dietary intake, avoids use of substances that may be harmful during pregnancy, obtains healthcare, and obtains information and gains knowledge about pregnancy and childbirth. Higher points represented high-quality health behaviour in pregnancy. The Cronbach's alpha value was found to be .81 (Lindgren, 2005). Reliability and validity of the Turkish version of the scale was performed by Er (2006). Turkish version of the scale has 33

items. The lowest score of the scale to be obtained 33, the highest score is 165. Cronbach's alpha value has been calculated as .74. In this study, Cronbach's alpha value was found to be .82.

2.4. Data collection

Pregnant women were informed about the purpose and significance of the study. Data were collected from the participants by face-to-face interview technique.

2.5. Data analysis

Data was analyzed by using SPSS 11.5 for Windows (SPSS Inc., Chicago, IL, USA). Numerical and percentage values were used for categorical variables. Descriptive statistics of the measurements were expressed as mean ± standard deviation (minimum-maximum). To test for statistical significance, Student t test, One-Way Analysis of Variance (ANOVA), Mann Whitney-U test and Kruskal-Wallis test were utilized for independent samples. Tukey Test was used in One-Way Analysis of Variance and Mann-Whitney U test with Bonferroni correction was used in Kruskal-Wallis variance analysis for the comparison of subgroups. The relationship between some variables of the measurements and pregnant women were assessed by pearson and spearman correlation analysis. Results were evaluated within 95% confidence interval and $p < .050$ was considered as statistically significant.

2.6. Ethical consideration

This study protocol was approved by the Institutional Review Boards of the hospital (Dated 29 Nowember, 2012 and numbered B.10.1TKH.4.67.N.67.0.01/121) and verbal consent were obtained from all pregnant women who participated in the study.

3. Results

3.1. Results regarding some characteristics belonging to pregnant women

A total of 1086 pregnant women participated in this study. The mean age of the pregnant women was 27.03 ± 4.86 (Min.16, Max. 46). According to Table 1, 95.9% of pregnant women are married (official marriage), 38.7% are high school graduates, 65.9% are unemployed, husbands of 38.9% are high school graduates and of 4.4% are unemployed, 7.7% do not have social insurance, 80.1% have a core family, 29.8% have an economic income less than expenses and 59.6% are living in city center (Table 1).

As shown in Table 2, 40.6% of pregnant women have no children, 19.2% had a spontaneous abortion and 11.6% had a curettage history, 6.8% had a chronic disease before pregnancy and 78.4% have a "normal" Body Mass Index (BMI). Out of pregnant women, 32.3% have her first pregnancy, 29.4% have an unplanned pregnancy, 12.2% have a complication concerning pregnancy, and 94.7% have social support during pregnancy.

3.2. Results evaluating psychosocial health status of pregnant women

The mean score of PPHAS was 4.03 ± 0.68. There were significant differences based on age groups ($p<.001$). The differences were between pregnant women in age groups of 18 and below and 27-34 years, and in age groups of 35 and above, 19-26 years and 27-34 years ($p<.008$). While psychosocial health status of pregnant women in the age group of 27-34

years was the highest, it was at the lowest level among pregnant women at the age of 18 and below.

There were significant differences between psychosocial health based on marital status and family type ($p<.001$). There were differences in family type between all groups ($p<.017$). While psychosocial health of married (official) pregnant were high, it was low among pregnant women who had a broken family (Table 3).

There were significant differences between psychosocial health based on education levels and employment status ($p<.001$). Psychosocial health of pregnant women who had an education level of secondary school and above ($p<.017$) and employed ($p<.001$) were significantly high. Similarly, there were significant differences between psychosocial health based on education level and employment status of their husbands. Psychosocial health of pregnant women whose husbands were primary school graduates ($p<.017$) and unemployed ($p<.001$) were significantly low. There were significant differences between psychosocial health based on social insurance, economic status and living place. Differences regarding economic status was present between all groups ($p<.017$), and psychosocial health of pregnant women who had an income less than expenses, who did not have a social insurance and who were not living in city center were significantly low ($p<.001$) (Table 3).

There were significant differences between psychosocial health based on number of children ($p<.001$), these differences were between all groups excluding pregnant women with no children-one child ($p<.008$); and psychosocial health of pregnant women worsened as the number of children increased. While psychosocial health of pregnant women who experienced a previous spontaneous abortion ($p < .001$) and had a previous chronic disease ($p<.001$) was significantly low, there was not a significant difference in terms of curettage ($p=.104$). When they were examined based on BMI before pregnancy, there were significant differences between psychosocial health based on BMI ($p<.001$) and psychosocial health of obese pregnant women were significantly low compared to other groups ($p<.008$). There were not significant differences between psychosocial health based on gestational week ($p=.630$); and psychosocial health of pregnant women who experienced 4 and more pregnancies ($p<.0083$), who had an unplanned pregnancy ($p<.001$), who had a pregnancy complication ($p=.001$) and who did not have a social support during pregnancy ($p<.001$) were significantly low (Table 4).

3.3. Results evaluating health practices of pregnant women

The mean score of HPQ-II was 126.68 ± 14.54. As seen in Table 3, there were significant differences based on age groups ($p<.001$). The differences were between pregnant women who were 18 years and below and the age groups of 19-26 and 27-34 years, and pregnant women in the age group of 27-34 years and 35 years and above ($p<.008$). There were significant differences between health practices of pregnant women based on marital status and family type characteristics ($p<.001$). Health practices of married (official) pregnant women were at a better level compared to others ($p<.001$). Differences concerning family type were between all groups ($p<.017$). Health practices were at the lowest level among pregnant women with a broken family (Table 3).

Differences regarding education level were present between all groups ($p<.017$). Health practices of uneducated and unemployed pregnant women were at a lower level compared to other pregnant women. Similarly, there were significant differences between health practices based on education level and employment status of their husbands ($p<.001$).

Health practices of pregnant women whose husbands had an education level of secondary school and above ($p<.017$) and who had an employed husband were at a better level compared to other pregnant women. As economic income increased, health practices of pregnant women also increased ($p<.017$). Health practices of pregnant women who did not have a social insurance and who were not living in city center were low ($p<.001$) (Table 3).

According to Table 4, there were significant differences between health practices based on the number of children ($p<.001$), these differences were between all groups and health practices decreased as the number of children increased ($p<.0083$). Health practices of pregnant women who experienced a previous spontaneous abortion ($p=.002$) and curettage ($p=.036$), and who had a chronic disease ($p<.001$) were significantly low. There were significant differences between health practices of pregnant women based on BMI before pregnancy ($p<.001$). Health practices of obese pregnant women were the lowest whereas they were at the highest level in pregnant women with normal weight (Table 4).

There were no significant differences between health practices of pregnant women based on gestational week ($p=.638$). In addition to this, health practices of pregnant women who had experienced 4 and more pregnancies ($p<.008$), whose pregnancy was unplanned ($p<.001$), who had a complication associated with pregnancy ($p=.031$) and who did not have a social support during pregnancy ($p<.001$) were significantly low (Table 4).

3.4. Results evaluating the relationships among some characteristics, psychosocial health status and health practices of pregnant women

There was a positive correlation between psychosocial health and health practices of pregnant women ($r=.46$, $p<.001$). Psychosocial health of pregnant women worsened as gestational week ($r=-.09$, $p=.001$), number of spontaneous abortions ($r=-.11$, $p<.001$) and curettage ($r=-.06$, $p=.038$) and BMI before pregnancy ($r=-.21$, $p<.001$) increased. Moreover, number of spontaneous abortions ($r=-.09$, $p=.001$) and curettage ($r=-.07$, $p=.015$) of pregnant women and their BMI ($r=-.14$, $p<.001$) increased as their health practices decreased.

4. Discussion

In this study, there was a positive correlation between psychosocial health of pregnant women and their health practices; and their health practices increased as their psychosocial health status improved. During pregnancy follow-ups, health professionals generally focus on physiological changes during pregnancy and psychosocial dimension of pregnancy remains out of attention and surveillance as long as no problem develops (Er, 2006; Kuğu & Akyüz, 2001). This result has an importance in terms of showing the requirement of a holistic approach in pregnancy follow-ups.

According to this study, psychosocial health of pregnant women at the age of 18 years and below and 35 years and above are at a lower level compared to other age groups. When relevant literature is examined, it is seen that age affects the process of pregnancy (Caliskan et al., 2007; Cornelius et al., 2007; Çakır & Can, 2012 (online publication); Evans et al., 2001; Fisher et al., 2012; Özçelik, 2010; Şahin, 2011); pregnancies at the age of 18 years and below are defined as "adolescent pregnancy" and pregnancies at the age of 35 years and above are defined as "advanced age pregnancy" and these age groups are considered as high-risk pregnancies in terms of mother and fetus/newborn health (Er, 2006; Fisher et al., 2012; Özçelik, 2010; Reichman & Pagnini, 1997; Şahin, 2011).

According to this study, psychosocial health and health practices of pregnant women who are not married (lack of official marriage) and who have broken family are significantly low. Due to cultural and moral structure of Turkish society, being unmarried and being divorced are unwellcome situations. This results may be thought as a reflection of cultural and moral structure of Turkish society. In addition, it was determined in many studies that marital status is effective on health status of pregnant women (Caliskan et al., 2007; Cornelius et al., 2007; Çakır & Can, 2012 (online publication); Er, 2006; Evans et al., 2001; Fisher et al., 2012; Özçelik, 2010).

While being unmarried, divorced, living alone and lack of partner support are defined as the risk factors for the problems encountered during pregnancy period (Er, 2006; Fisher et al., 2012; Silva et al., 2012; Şen et al., 2012; Yeşilçiçek Çalık & Aktas, 2011); it was indicated that women who share her important problems with her partner and whose maternal role is approved by her husband are more compatible with new roles (Arslan, 2010; Er, 2006). Another reason of the effect of marital status and family structure on the health status may be economic status of the pregnant. Considering working experiences of women in Turkey, low proportion of women in working life, absence of desired level of economic freedom, her economic dependency on husband and lack of economic income to meet increasing requirements during pregnancy in case of divorce or different situations may bring many problems. The results of our study showing that a significant proportion of pregnant women were unemployed and psychosocial health and health practices of pregnant women who were unemployed, who did not have a social insurance and who had an income less than expenses were significantly low support our idea. When relevant studies were examined, it was observed that low socioeconomic status generated a risk in terms of health, it formed the basis for some mental and physical problems (Bahar, 2006; Çakır & Can, 2012 (online publication); Er, 2006; Fisher et al., 2012; Gözüyeşil et al., 2008; Yanikkerem et al., 2013; Yeşilçiçek Çalık & Aktas, 2011).

In this study, psychosocial health and health practices were better as education level of pregnant women and their husbands increased. When previous studies were examined, it was determined that higher education level was protective against mental problems (Fisher et al., 2012); effectiveness of the pregnant woman on her own life and her self-respect increased as education level increased, continuous anxiety and depression risk decreased (Arslan, 2010; Gözüyeşil et al., 2008), and her perception of social support and ability of problem solving increased (Okanlı et al., 2003). Furthermore, education level was effective on health practices; and quality of health practices and life increased as education level increased (Er, 2006; Lin, Tsai, Chan, Chou, & Lin, 2009; Özçelik, 2010; Şen et al., 2012; Yanikkerem et al., 2013). Evaluation of the effect of education on health may not be sufficient alone; because higher level of education may bring a regular job with it and therefore, it may increase the possibility of having a regular income and social insurance. In that case, as a higher education level, working in a regular job, presence of a regular income and having a health insurance may show the presence of a particular social support network during pregnancy, it may be effective in improving psychosocial health and in bringing positive health behaviours to pregnant women (Er, 2006; Okanlı et al., 2003; Şen et al., 2012; Yanikkerem et al., 2013).

According to the results of this study, psychosocial health and health practices of pregnant women who were living in city center were at a better level. Since pregnant women who are living in city center can easily access to health services, they may feel safe. Besides, easy access to health services may allow them to have regular prenatal follow-ups and to benefit more from training and consulting services.

In this study, psychosocial health and health practices of pregnant women worsened as the number of children of pregnant women increased. In Turkey, men are the sole breadwinners and women fulfill the caregiver role because they are socialized to enact caring and nurturing roles. Therefore, women are homemakers who take care of children which may be considered as an extra burden. This extra burden in responsibilities might negatively affect the psychosocial health and health practices of pregnant women. The results of this study showing that psychosocial health and health practices of pregnant women who had experienced 4 and more pregnancies were significantly low, support our idea. Similarly, Er (2006) has stated that health practices of pregnant women worsened as the number of children increased. Moreover, it was found that anxiety and depression scores of pregnant women increased as the number of living children and pregnancy increased (Arslan, 2010; Cornelius et al., 2007; Kuğu & Akyüz, 2001).

According to the study, psychosocial health of pregnant women who had a history of spontaneous abortion were significantly low. Although there is no significant difference, psychosocial health of pregnant women who had a previous curettage history were lower compared to the ones without a curettage history. When abortion and curettage were considered as negative pregnancy experiences, it may be thought that previous bad experiences might negatively affect psychosocial health. In performed studies, it was reported that feeling of guilt and suffering due to this were common and mental problems were experienced at a higher level by women who had experienced an abortion during her previous pregnancy (Çakır & Can, 2012 (online publication); Eberhard-Gran, Eskild, Tambs, Samuelsen, & Opjordsmoen, 2002; Gözüyeşil et al., 2008; Lee, Yip, Leung, & Chung, 2000).

In the study, psychosocial health of pregnant women who had a chronic disease was significantly low. Presence of chronic disease during pregnancy may lead to progression of the disease during pregnancy and death of the mother. Moreover, these diseases may cause perinatal mortality in the fetus, prematurity or the delivery of a baby with a low birth weight (Er, 2006; Taşkın, 2017). Therefore, presence of a chronic disease may increase the anxiety and stress level of the pregnant women during this period. In previous studies, more anxiety and depression were observed among women who had a chronic disease history (Arslan, 2010; Çakır & Can, 2012 (online publication)). Therefore, it is crucial to perform more frequent follow-ups and monitoring for pregnant women with a chronic disease during planning period of the pregnancy, during pregnancy and during postpartum period, and to raise their awareness.

According to the results of the study, health practices of pregnant women who had a history of spontaneous abortion and curettage and who had a chronic disease were at a lower level. Considering negative health behaviours affect the health of mother and fetus/newborn, it may be thought that pregnant women with poor health practices might have experienced more spontaneous abortions and curettage and had more chronic diseases. The results of this study showing that the number of spontaneous abortions and curettage increased as health practices of pregnant women decreased, support our idea. Therefore, high-quality health practices should be diagnosed ve gained before pregnancy.

In this study, psychosocial health of pregnant women who were obese before pregnancy were at the lowest level. Obesity is an important risk factor for the development of health problems during pregnancy period (Yeşilçiçek Çalık & Aktas, 2011). Therefore, obesity-associated health risks may negatively affect psychosocial health by causing intense anxiety and stress among pregnant women. The results of the study showing that psychosocial health of pregnant women who had pregnancy complications were significantly low, support

our idea. In this study, it was also determined that health practices of obese pregnant women were at the lowest level. This finding may suggest that health practices of obese pregnant women were low also before pregnancy. Negative correlation that we found between health practices and BMI supports our idea. Therefore, all women should be brought to a weight close to ideal weight before pregnancy, and appropriate weight gain should be provided during pregnancy besides a balanced and adequate diet.

Another important finding is that psychosocial health and health practices of pregnant women whose pregnancy was unplanned were significantly low. Similarly, it was reported that unplanned pregnancy negatively affected the psychosocial health (Arslan, 2010; Gözüyeşil et al., 2008; Okanlı et al., 2003) and health practices (Er, 2006; Özkan & Mete, 2010; Şen et al., 2012). Therefore, effective implementation of family planning services and raising the awareness of women about family planning services, more frequent implementation of pregnancy follow-ups in unplanned pregnancies and provision of psychosocial support services to these pregnant women are very important.

In this study, psychosocial health and health practices of pregnant women who did not have a social support during pregnancy were significantly low. Social support is a powerful source in the solution, prevention and treatment of sociological and psychological problems of the individual and in her ability to cope with challenging situations (Mermer et al., 2010). Therefore, social support helps pregnant woman to relax emotionally and cognitively, to benefit more from social opportunities, to cope more with stress factors and anxiety and facilitates the transition to the role of motherhood (Okanlı et al., 2003; Vırıt et al., 2008; Yeşilçiçek Çalık & Aktas, 2011). In previous studies, it was indicated that lack of social support during pregnancy were correlated with increased depression and anxiety (Elsenbruch et al., 2007; Karacam & Ancel, 2009; Vırıt et al., 2008; Westdahl et al., 2007), it affected life style of the mother by impairing mental health during pregnancy and postpartum period, it impaired dietary habits and caused an increase in cigarette, alcohol and illegal substance consumption (Er, 2006; Harley & Eskenazi, 2006; Vırıt et al., 2008). Nurse is the person who is in close relationship with the woman during pregnancy period. Therefore, the role of the nurse in providing social support is great.

As seen above, implementation of physical assessments as well as psychosocial evaluations and determination of risk factors are important for healthy maintenance of pregnancy period for the mother and the fetus. In this context, health proffesionals such as nurses, midwives and physicians have important responsibilities. The main conclusion of this study was that there was a positive correlation between psychosocial health and health practices. Psychosocial health and health practices show significant differences according to some characteristics of pregnant women such as age, marital status, family type, education level, employment status, presence of social insurance, economic income, number of children, number of abortion and curettage, chronic disease status, BMI before pregnancy, number of pregnancy, pregnancy planning status, complication associated with pregnancy and social support.

5. Conclusion and Suggestions

From the abovementioned results and discussion, suggestions as follows:

Expansion of premarital counseling services for reproductive health and family planning for the prevention of risky pregnancies.

Organization of reproductive health and family planning training in schools.

Implementation of psychosocial assessments besides physical assessments during pregnancy follow-ups, determination of risk factors, submission of health sevices appropriate for pregnant women in accordance with determined risks.

Presentation of training programs about pregnancy, delivery, problems and psychological changes during pregnancy to pregnant women and their families by opening family schools, and provision of active participation of family members.

Provision of support to the pregnant women who do not have adequate social support by healthcare team members.

Free coverage of health and social expenses of pregnant women whose socioeconomic level is low.

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Table 1. Distribution of Sociodemographic Characteristics of Pregnant Women

Variables	n	%
Age		
18 and below	17	1.6
19-26 years	529	48.7
27-34 years	467	43.0
35 and above	73	6.7
Marital status		
Official marriage	1041	95.9
Other*	45	4.1
Family type		
Nuclear family	870	80.1
Large family	208	19.2
Broken family	8	0.7
Educational level of women		
Illiterate	15	1.4
Literate	44	4.1
Primary school	144	13.3
Secondary school	188	17.3
High school	420	38.6
University	248	22.8
Postgraduate	27	2.5
Employment status of women		
Unemployed	716	65.9
Employed	370	34.1
Education level of husband		
Illiterate	13	1.2
Literate	36	3.3
Primary school	111	10.2
Secondary school	151	13.9
High school	422	38.9
University	333	30.7
Postgraduate	20	1.8
Employment status of husband		

Unemployed	48	4.4
Employed	1038	95.6
Social insurance		
No	84	7.7
Yes	1002	92.3
Income status		
Income is lower than expenses	324	29.8
Income is equal to expenses	560	51.6
Income is higher than expenses	202	18.6
Living place		
City center	647	59.6
Other**	439	40.4

* Other (divorced, religious marriage); **Other (county, village, town, avenue); n=number of cases; %: percentage of cases

Table 2. Distribution of Health History and Fertility Characteristics of Pregnant Women

Variables	n	%
History of prior pregnancy		
Number of living children		
do not have any children	441	40.6
1	415	38.2
2	165	15.2
3 and more	65	6.0
History of spontaneous abortion		
No	878	80.8
Yes	208	19.2
History of curettage		
No	960	88.4
Yes	126	11.6
History of chronic disease		
No	1012	93.2
Yes	74	6.8
BMI* before pregnancy		
Underweight (below 18.5 kg/m2)	44	4.1
Normal (18.5-24.9 kg/m2)	848	78.3
Overweight (25-29.9 kg/m2)	161	14.9
Obese (30 kg/m2 and above)	29	2.7
History of current pregnancy		
Number of pregnancy		
1 pregnancy	351	32.3
2 pregnancies	413	38.0
3 pregnancies	202	18.6
4 pregnancies	80	7.4
5 and more	40	3.7
Gestational week		
1-13 weeks	129	11.9

14-26 weeks	303	27.9
27-41 weeks	654	60.2
Planning status of pregnancy		
Planned	767	70.6
Unplanned	319	29.4
Maternal complications in this pregnancy		
No	954	87.8
Yes	132	12.2
Social support status		
No	58	5.3
Yes	1028	94.7

*Body Mass Index; n=number of cases; %: percentage of cases

Table 3. Comparison of Psychosocial Health Status and Health Practices of Pregnant Women Based on Sociodemographic Characteristics

Variables	PPHAS	Test value	HPQ-II	Test value
	X ± SD	p	X ± SD	p
Age				
18 and below	3.43±1.00	KW=20.862	109.53±16.86	KW=30.209
19-26 years	4.04±0.63	< .001*	126.51±14.09	< .001*
27-34 years	4.10±0.64		128.37±13.80	
35 and above	3.66±0.95		120.99±17.68	
Marital status				
Official marriage	4.06±0.64	U=-4.242	127.41±14.05	t=8.212
Other**	3.36±1.05	< .001*	109.76±15.71	< .001*
Family type				
Nuclear family	4.09±0.64	KW=40.053	128.77±13.62	KW:92.468
Large family	3.85±0.74	< .001*	118.92±14.77	< .001*
Broken family	2.53±0.62		100.00±12.08	
Education level of women				
No education	3.66±0.77	KW=22.801	110.10±14.60	F=79.831
Primary school	3.85±0.86	< .001*	119.04±15.93	< .001*
Secondary school or more	4.09±0.62		129.03±13.10	
Employment status of women				
Unemployed	3.95±0.70	U=-5.470	123.80±14.56	U=-9.424
Employed	4.18±0.60	< .001*	132.24±12.80	< .001*
Education level of husband				
No education	3.89±0.78	KW=50.639	114.45±17.67	F=76.012
Primary school	3.54±0.86	< .001*	114.39±15.20	< .001*
Secondary school or more	4.09±0.61		128.79±13.18	
Employment status of husband				
Unemployed	3.31±1.00	U=-5.002	111.50±18.99	t=-5.721
Employed	4.06±0.64	< .001*	127.38±13.92	< .001*

Social insurance				
No	3.63±0.96	U=-3.560	114.85±17.17	t=-6.665
Yes	4.06±0.64	< .001*	127.67±13.86	< .001*
Income status				
Lower than expenses	3.60±0.82	KW=147.916	117.93±14.91	KW:183.452
Equal to expenses	4.18±0.51	< .001*	129.27±12.53	< .001*
Higher than expenses	4.31±0.47		133.50±12.61	
Living place				
City center	4.10±0.62	U=-4.039	129.32±13.51	U=-7.420
Other***	3.92±0.74	< .001*	122.78±15.14	< .001*

PPHAS: Pregnancy Psychosocial Health Assessment Scale; HPQ-II: Health Practices Questionnaire in Pregnancy-II; X ± SD (Min-Max): Mean ± Standart Deviation (Minumum-Maximum); *p < .001; *Other (divorced, religious marriage); ***Other (county, village, town, avenue)

Table 4. Comparison of Psychosocial Status and Health Practices of Pregnant Women Based on Their Health History and Fertility Characteristics

Variables	PPHAS	Test value	HPQ-II	Test value
	X ± SD (Min-Max)	p	X ± SD (Min-Max)	p
Number of living children				
No children	4.14±0.59	KW=57.853	129.78±13.44	F=24.659
1	4.08±0.62	< .001*	126.74±13.84	< .001*
2	3.85±0.74		122.42±14.57	
3 and more	3.38±0.93		115.98±18.22	
History of spontaneous abortion				
No	4.09±0.61	U=-3.585	127.54±13.87	U=-3.057
Yes	3.79±0.88	< .001*	123.02±16.65	.002*
History of curettage				
No	4.05±0.65	U=-1.627	127.05±14.32	U=-2.098
Yes	3.87±0.84	.104	123.83±15.91	.036*
History of chronic disease				
No	4.05±0.66	U=-3.757	127.27±14.27	U=-4.689
Yes	3.73±0.81	< .001*	118.53±15.87	< .001*
BMI before pregnancy				
Underweight	4.04±0.63	KW=86.849	122.75±12.90	KW=56.320
Normal	4.13±0.58	< .001*	128.34±13.49	< .001*
Overweight	3.73±0.81		121.94±17.14	
Obese	2.78±0.84		109.93±14.35	
Number of pregnancy				
1 pregnancy	4.12±0.62	KW=82.062	128.66±14.15	F=32.444
2 pregnancies	4.15±0.55	< .001*	128.74±12.96	< .001*
3 pregnancies	4.04±0.62		125.79±13.	
4 and more	3.35±0.93		115.26±16.77	

Gestational week				
1-13 weeks	4.10±0.62	KW=0.925	126.26±14.11	KW=0.898
14-26 weeks	4.06±0.62	.630	126.61±13.35	.638
27-41 weeks	4.00±0.71		126.79±15.16	
Planning status of pregnancy				
Planned	4.20±0.56	U=-12.845	130.13±13.32	U=-12.470
Unplanned	3.62±0.76	< .001*	118.37±14.00	< .001*
Maternal complications in this pregnancy				
No	4.05±0.68	U=-3.455	127.01±14.54	U=-2.161
Yes	3.88±0.66	.001*	124.23±14.39	.031*
Social support status				
No	3.40±0.89	U=-5.972	117.16±18.36	U=-4.307
Yes	4.07±0.65	< .001*	127.21±14.12	< .001*

PPHAS: Pregnancy Psychosocial Health Assessment Scale; HPQ-II: Health Practices Questionnaire in Pregnancy-II; X ± SD (Min-Max): Mean ± Standart Deviation (Minumum-Maximum); BMI: Body Mass Index; *p < .050.

Declarations:

This research was demonstrated as verbal presentation in I. National Public Health Nursing Congress in İzmir, 17-20 June 2015. "The authors declared that there is no conflict of interest."

Ethical Considerations:

This study protocol was approved by the Institutional Review Boards of the hospital (Dated 29 November, 2012 and numbered B.10.1TKH.4.67.N.67.0.01/121) and verbal consent were obtained from all pregnant women who participated in the study. This study was conducted in accordance with the Helsinki Declaration principles.