Cukurova Medical Journal
ÇUKUROVA ÜNİVERSİTESİ TIP FAKÜLTESİ

Cukurova Med J 2019;44(3):772-781
DOI: 10.17826/cumj.482553

ARAŞTIRMA / RESEARCH

Factors affecting the quality of life among pregnant women during the third trimester of pregnancy

Üçüncü trimester gebelerde yaşam kalitesi ve etkileyen faktörler

Gülseren Dağlar[1], Dilek Bilgiç[2], Semiha Aydın Özkan[3]

[1]Cumhuriyet University Faculty of Health Sciences, Department of Midwifery, Sivas, Turkey
[2]Dokuz Eylül University Faculty of Nursing, Obstetrics and Gynecology Nursing, İzmir, Turkey.
[3]Adıyaman University, Health High School, Department of Midwifery, Adıyaman, Turkey.

Cukurova Medical Journal 2019;44 (1):772-781.

Abstract

Purpose: The aim of this study was to determine the factors affecting the quality of life pregnant women during the third trimester of pregnancy.

Materials and Methods: The study group of this cross-sectional research comprise of the pregnant women resident in a province center in Central Anatolia. 12 neighborhoods were chosen using simple random sampling method and the pregnancy registries of the selected neighborhoods available in Family Health Centers were used. The study was performed via home visits and the research sample consisted of 742 pregnant women. "Personal Information Form" and "Quality of Life Scale" were used for data collection.

Results: The physical, psychological, social and environmental field scores of the pregnant women were respectively 13.8 ± 2.5; 14.5 ± 2.3; 14.6 ± 2.8 and 14.8 ± 2.2. 13.1%, 15.9%, 10.4% and 17.4% of the pregnant women were found to have low physical, psychological, social and environmental domain quality of life sub-dimensions, respectively.

Conclusion: During the third trimester of pregnancy, life qualities of pregnant women are affected by their perception of health condition, educational level, the number of gestations and deliveries they have undergone, their perception of fiscal situation, and their preparedness for parenthood.

Keywords: Third trimester, pregnant, quality of life

Öz

Amaç: Bu çalışmada üçüncü trimester gebelerde yaşam kalitesinin ve etkileyen faktörlerin belirlenmesi amaçlanmıştır.

Gereç ve Yöntem: Kesitsel tipte planlanan araştırmanın evrenini İç Anadolu bölgesinde yer alan bir il merkezinde yaşayan gebeler oluşturmuştur. 12 mahalle basit rastgele örnekleme yöntemiyle seçilmiş, gebelerin tespiti için seçilen mahallelerin Aile Sağlığı Merkezlerinde bulunan gebe kayıtları kullanılmıştır. Çalışma ev ziyareti olarak yapılmış, örneklemi 742 gebe oluşturmuştur. Veriler "Kişisel Bilgi Formu" ve "Yaşam Kalitesi Ölçeği" ile toplanmıştır.

Bulgular: Gebelerin fiziksel, psikolojik, sosyal ve çevresel alan puan ortalamaları 13.8 ± 2.5; 14.5 ± 2.3; 14.6 ± 2.8 ve 14.8 ± 2.2'dir. Gebelerin %13.1'inin fiziksel, %15.9'unun psikolojik, %10.4'ünün sosyal, %17.4'ünün çevresel alan yaşam kalitesi alt boyutları düşük bulunmuştur.

Sonuç: Üçüncü trimester gebelerin yaşam kalitesi sağlık durum algısından, eğitim düzeyinden, gebelik ve doğum sayısından, ekonomik durum algısından ve ebeveynlik rolüne hazır oluşluk durumundan etkilenmektedir.

Anahtar kelimeler: Üçüncü trimester, gebe, yaşam kalitesi

Yazışma Adresi/Address for Correspondence: Dr. Gülseren Dağlar, Cumhuriyet University Faculty of Health Sciences, Department of Midwifery Sivas, Turkey E-mail: gulserendaglar@gmail.com
Geliş tarihi/Received: 14.11.2018 Kabul tarihi/Accepted: 31.12.2018 Çevrimiçi yayın/Published online: 24.02.2019

INTRODUCTION

Although pregnancy is a physiological phenomenon, it is a life stage requiring serious bio-psycho-social adjustment for a woman and her family. The major health problems that adversely affect women's health and quality of life occur in pregnancy, childbirth and postnatal periods[1]. Quality of life is a multidimensional concept that includes physical, mental, emotional and social functioning, and focuses on the effects of health on quality of life[2].

Quality of life is affected by one's body health, mental state, social relations, independence level, and personal beliefs, but can also be affected by the person's relationship with his/her own environment. As well as psychosocial changes, changes in physical, social and mental domains may affect the quality of life of pregnant women[2]. In other studies, it is stated that pregnancy is related to significant changes in quality of life[2], changes in pregnancy decrease the quality of life, and as the pregnancy progresses, postpartum physical functioning and well-being perception decrease compared to pre-pregnancy[3,4]. In addition, the quality of life in pregnancy can affect the woman's birth process, the health of the fetus and the baby, and the outcomes of labor[4]. Low quality of life, especially in physical health, is associated with an increase in low birth weight infant rate[5].

Increased physical complaints in the third trimester of pregnancy, anxieties about herself and baby's health, and fear of childbirth may lead to a decrease in the quality of life of pregnant women. In a study evaluating the quality of life in pregnancy, though they had no health-related complaints, it was determined that most of the pregnant women had a low quality of life and the lowest mean scores were in role physical and in role emotional domains[6]. Chang et al[7] reported that physical health was very bad in the third trimester because of the poor physical functioning in the late pregnancy. In this period, even if pregnant women meet their need for support from their immediate environment, they may also need the support of a midwife/nurse who provides home care services[8].

In parallel to technological developments in recent years, developments in the field of health have made progress in the biological treatment of patients. Moreover, the necessity of addressing psychosocial problems has also come into the agenda and the quality of life of the patients has begun to be addressed more. When the literature was examined, it was observed that studies evaluating the quality of life in chronic diseases increased, but studies on quality of life in pregnancy, especially the quality of life in the third trimester, were inadequate. Accordingly, this study was conducted to determine the quality of life and the affecting factors of pregnant women in the third trimester.

MATERIALS AND METHODS

This cross-sectional study was conducted in a city center of Central Anatolia Region between January 1 and April 30, 2016. The population of this study consisted of pregnant women living in a city center. 20% of the 62 neighborhoods in the city center were aimed to be sampled. As a result, a total of 12 neighborhoods were selected by simple random sampling method from 4 for each neighborhood that Selvi[9] determined their socioeconomic status as high-medium-low in his thesis study. For the selection of pregnant women, records of pregnant women in Family Health Centers of the relevant neighborhoods were used. A total of 742 pregnant women living in the city center who had no communication difficulties, mental disabilities and who agreed to participate in the study formed the sample.

The data were collected by "Personal Information Form" and "The World Health Organization Quality of Life Questionnaire (WHOQOL-BREF)" in order to determine the quality of life of the pregnant women.

Assessment scales

Personal Information Form

Which was created by the researchers after the literature review, was composed of 19 questions about socio-demographic (age, educational background, marriage period, employment status etc.) and obstetric characteristics (number of pregnancy, para, planning on getting pregnant, preparation for motherhood) of pregnant women[2,4,5,7,11-15].

The World Health Organization Quality Of Life Scale (WHOQOL-BREF)

WHOQOL-BREF developed by the World Health Organization, was used in the study. This scale

consists of 27 items and has a five-point rating system. It is evaluated as 1 = very bad, 2 = slightly bad, 3 = neither good nor bad, 4 = quite good and 5 = very good. WHOQOL-BREF includes physical, mental, social, environmental and national environmental domains. Possible obtainable scores from the subscale range from 0 to 20. As the scores increase, so does the quality of life. Eser et al[10] in 1999 conducted the reliability and validity study of the Turkish version of the scale. In the validity and reliability study, Eser and colleagues[10] found a Cronbach's alpha coefficient of 0.83 for the physical area, 0.66 for the psychological area, 0.53 for the social area, 0.73 for the environmental area and 0.73 for the national environmental area. In this study Cronbach alpha values were the physical 0.765, mental 0.721, social 0.599 and environmental 0.753 domains respectively.

The study was carried out as a home visit by the researchers and an appointment was made with women prior to the visit. In the home visit, the consent of pregnant women was obtained by reading the information in the volunteer form. "Personal Information Form" and "Quality of Life Scale" were filled out by the ones who accepted to participate and the interview lasted approximately 20 minutes. In order to protect the rights of the pregnant women, the purpose of the interview was explained in accordance with the principle of "Informed Consent", they were stated that information would be kept confidential in accordance with "Confidentiality and Privacy Policy" and the participation would be voluntary in accordance with "Respect for Autonomy". The study was conducted in accordance with the Helsinki Declaration Principles.

Statistical analysis

Statistical evaluation of the data was undertaken using SPSS 22.0 software for Windows. The data were analyzed using Kolmogorov Smirnov and Shapiro Wilk tests. Number, percentage, mean, standard deviation, Independent Sample T-Test and One-way ANOVA tests were used. In addition, logistic regression analysis was performed to determine the "low" quality of life. Statistical significance was accepted as $p<0.05$.

RESULTS

The average age of the third trimester pregnant women was 27.6±5.4 (min 17-max 44) and 81.5% of the pregnant women were in the 20-34 age group. It was found that 50.9% of the pregnant women were primary school graduates, 57.1% were married for 5 years, 82.3% did not work in any kind of jobs, 73.5% had equal income and expense, 60.1% perceived their health as very good. In addition, it was determined that 35.7% had their first pregnancy, 41.4% had their first birth, 70.1% had planned their pregnancy, and 82.7% felt ready for motherhood (Table 1). When physical, mental, social and environmental domain scores of pregnant women in the study were examined, their mean scores were found 13.8±2.5, 14.5±2.3, 14.6±2.8 and 14.8±2.2, respectively.

When the quality of life subscale mean scores were examined, the physical domain was found statistically significantly higher in pregnant women who aged 19 and below (14.2±2.5), who were married for 5 years (14.0±2.4), who had no chronic disease (13.9±2.4), who perceived their health as very good (14.5±2.2), who had their first and second pregnancies (14.0±2.4 and 14.1±2.5), who did not give birth before (14.1±2.5) and who stated that they were ready for motherhood role (14.0±2.4) ($p<0.05$) (Table 1).

Mental domain was found to be statistically significantly higher in pregnant women who had education at the level of high school or more and in illiterate ones (15.0±2.1 and 15.4±2.0), who were married for 5 years (14.6±2.2), who were working (15.0±2.1), who had nuclear families (14.7±2.3), who had higher income than their expense (15.0±2.3), who perceived their general health as very good (15.1±2.0), who had their first and second pregnancies (14.9±2.1 and 14.5±2.3), who did not give birth before (15.0±2.1), who planned their pregnancy (14.6±2.2) and who stated that they were ready for motherhood role (14.7±2.2) ($p<0.05$) (Table 1).

Social domain was found to be statistically significantly higher in pregnant women who had education at the level of high school or more and in illiterate ones (14.9±2.6 and 14.9±2.3), who were married for 5 years (14.6±2.7), who were working (15.2±2.6), who had nuclear families (14.8±2.6), who had higher income than expense (15.0±2.4), who perceived their general health as very good (15.1±2.7), who had their first pregnancy (15.0±2.6) and who did not give birth before (15.0±2.6) ($p<0.05$) (Table 1).

Environmental domain was found to be statistically significantly higher in pregnant women who had education at the level of high school or more and in illiterate ones (15.3±2.1 and 15.6±2.5), who were married for 5 years (15.1±2.1), who were working (15.6±2.0), who had nuclear families (14.9±2.2), who had higher income than expense (15.7±2.0), who perceived their general health as very good (15.1±2.1), who had their first pregnancy (15.3±2.1), who did not give birth before (15.4±2.1) and who planned their pregnancy (14.9±2.2) ($p<0.05$) (Table 1).

In one-way analyses, logistic regression analysis was performed to determine the effects of the variables associated with having "low" quality of life. While logistic regression analysis was performed, cut-off points were determined according to -1 standard deviation. The share of individuals who were below the cut-off point, ie those with low quality of life, was examined. Accordingly, those having less than 11.37 from the physical domain constituted 13.1% of all pregnant women (n=97), those having less than 12.23 from the mental domain constituted 15.9% of all pregnant women (n=118), those having less than 11.82 from the social domain constituted 10.4% of all pregnant women (n=77) and those having less than 12.55 from the environmental domain constituted 17.4% of all pregnant women (n=129).

Table 1. Distribution of physical, psychological, social and environmental quality of life domains by demographic data (n=742).

Demographic and Obstetric Characteristics	n (%)	Physical Domain	Psychological Domain	Social Domain	Environmental Domain
Age					
< 20 years	41 (5.5)	14.2±2.5	14.6±1.9	14.7±2.9	14.7±1.9
20-34 years	605 (81.5)	13.9±2.4	14.5±2.3	14.6±2.7	14.8±2.2
>34 years	96 (12.9)	13.2±2.6	14.1±2.3	14.3±2.8	14.4±2.1
p**		0.033	0.197	0.591	0.202
Educational Background					
Illiterate	23 (3.1)	14.5±2.2	15.4±2.0	14.9±2.3	15.6±2.5
Pre-secondary school	378 (50.9)	13.6±2.6	14.0±2.3	14.3±2.9	14.3±2.2
High School and above	341 (46.0)	14.0±2.3	15.0±2.1	14.9±2.6	15.3±2.1
p**		0.077	0.000	0.005	0.000
Marriage period					
1-5 years	424 (57.1)	14.0±2.4	14.6±2.2	14.6±2.7	15.1±2.1
6-10 years	203 (27.4)	13.9±2.4	14.5±2.3	14.8±2.8	14.6±2.2
11 years and above	114 (15.4)	13.0±2.5	13.7±2.2	13.9±2.9	14.0±2.3
p**		0.002	0.000	0.017	0.000
Employment Status					
Employed	131 (17.7)	13.9±2.4	15.0±2.1	15.2±2.6	15.6±2.0
Unemployed	611 (82.3)	13.8±2.5	14.4±2.3	14.5±2.8	14.6±2.2
p*		0.558	0.002	0.005	0.000
Family Type					
Nuclear family	558 (75.2)	13.9±2.5	14.7±2.3	14.8±2.7	14.9±2.2
Extended family	184 (24.8)	13.7±2.3	14.0±2.0	14.1±2.8	14.4±2.2
p*		0.452	0.001	0.009	0.018
Chronic Disease Status					
Yes	88 (11,9)	13.3±2.8	14.1±2.2	15.0±2.9	14.4±2.3
No	654 (88.1)	13.9±2.4	14.5±2.3	14.6±2.7	14.8±2.2
p*		0.036	0.062	0.187	0.137
Smoking					
Yes	41 (5.5)	13.1±2.5	14.4±1.8	14.0±2.5	14.5±1.9
No	701 (94.5)	13.9±2.4	14.5±2.3	14.6±2.8	14.8±2.2
p*		0.054	0.743	0.116	0.326
Perception of Economic Condition					
My income is less than my expenses	126 (17.0)	13.6±2.7	13.8±2.3	14.0±3.2	13.9±2.4

My income and expenses are balanced	545 (73.5)	13.8±2.4	14.6±2.2	14.7±2.7	14.9±2.1
My income is more than my expenses	71 (9.6)	14.3±2.4	15.0±2.3	15.0±2.4	15.7±2.0
p**		0.120	0.000	0.012	0.000
Perception of Health Status					
Very good	446 (60.1)	14.5±2.2	15.1±2.0	15.1±2.7	15.1±2.1
Middle	228 (30.7)	13.2±2.2	14.0±2.0	13.9±2.5	14.1±2.3
Very bad	68 (9.2)	11.6±2.9	12.2±2.6	12.2±3.3	14.6±2.3
p**		0.000	0.000	0.000	0.000
Number of Pregnancy					
1st pregnancy	265 (35.7)	14.0±2.4	14.9±2.1	15.0±2.6	15.3±2.1
2nd pregnancy	210 (28.3)	14.1±2.5	14.5±2.3	14.4±2.8	14.9±2.2
3 and more pregnancies	267 (36.0)	13.5±2.4	14.0±2.3	14.4±2.7	14.1±2.2
p**		0.034	0.000	0.012	0.000
Para					
No birth	307 (41.4)	14.1±2.5	15.0±2.1	15.0±2.6	15.4±2.1
One birth	234 (31.5)	14.0±2.5	14.3±2.4	14.3±2.9	14.7±2.1
Two birth and above	201 (27.1)	13.3±2.3	14.0±2.2	14.0±2.8	14.0±2.2
p**		0.002	0.000	0.004	0.000
Planning on Getting Pregnant					
Planned	520 (70.1)	13.9±2.4	14.6±2.2	14.6±2.7	14.9±2.2
Unplanned	222 (29.9)	13.6±2.7	14.2±2.3	14.5±2.9	14.4±2.3
p*		0.163	0.012	0.662	0.009
Preparation for motherhood					
Yes	614 (82.7)	14.0±2.4	14.7±2.2	14.7±2.7	14.8±2.2
No	128 (17.3)	13.1±2.7	13.8±2.6	14.3±3.0	14.7±2.3
p*		0.000	0.000	0.140	0.773

*independent sample t test **One way Anova

Table 2 shows the variables (logistic regression reduced final models) associated with having "low" quality of life in the third trimester pregnant women.

Logistic regression analysis was created according to 11 independent variables such as age, educational level, duration of the marriage, working status, family type, income level, general health perception, number of pregnancies, number of births, planning of pregnancy, readiness for motherhood role. The variables that negatively affected the quality of life of the physical domain were moderate and poor general health perception (OR=3.37), 2 and more births (OR=1.54). The variables that negatively affected the quality of life of the mental domain were being primary school graduate (OR=1.65), moderate and poor general health perception (OR=3.12), 1 and more births (OR=1.59), not being ready for a parental role (OR=2.09). The variables that negatively affected the quality of life of the social domain were moderate and poor general health perception (OR=2.24), and 1 and more births (OR=1.53). The variables that negatively affected the quality of life of the environmental domain were being primary school graduate (OR=1.66), income less than expense (OR=1.63), moderate and poor general health perception (OR=1.77), 3 and more pregnancies (OR=1.94) (Table 2).

DISCUSSION

The mean scores of the physical, mental, social and environmental domains were 13.8±2.5, 14.5±2.3; 14.6±2.8 and 14.8±2.2, respectively. In the study of Altiparmak[11], mean scores of the physical, mental, social and environmental domains of the pregnant women were 12.9, 13.9, 14.7 and 13.4, and in another study of Altiparmak et al[12], scores were 12.03, 13.61, 13.95, and 13.07, respectively. The results of our study are similar to the results of these studies with pregnant women.

Table 2. The variables (logistic regression reduced final models) associated with having "low" quality of life in the third trimester pregnant women.

Quality of life sub-dimensions	Indipendent variables	B	S.E.	Wald	Sig.	Exp(B)	95,0% C.I.
Physical Domain	Perception of Health Status						
	Very good (ref)						
	Middle and very bad	1,215	0,161	57,131	0,000	3,370	2,459-4,618
	Parity						
	0 and 1 birth (ref)						
	2 birth and above	0,433	0,177	5,995	0,014	1,542	1,090-2,182
Psychological Domain	Educational Background						
	Illiterate and High School and above (ref)						
	Pre-secondary school	0,501	0,163	9,484	0,002	1,650	1,200-2,270
	Perception of Health Status						
	Very good (ref)						
	Middle and very bad	1,137	0,161	49,634	0,000	3,117	2,272-4,276
	Parity						
	No birth (ref)						
	1 birth and above	0,462	0,167	7,695	0,006	1,588	1,145-2,201
	Preparation for motherhood						
	Yes (ref)						
	No	0,736	0,212	12,057	0,001	2,088	1,378-3,164
Social Domain	Perception of Health Status						
	Very good (ref)						
	Middle and very bad	0,805	0,157	26,303	0,000	2,238	1,645-3,044
	Parity						
	No birth (ref)						
	1 birth and above	0,428	0,160	7,117	0,008	1,534	1,120-2,100
	Illiterate and High School and above (ref)						
	Pre-secondary school	0,509	0,161	9,952	0,002	1,664	1,213-2,283
	Perception of Economic Condition						
	Income and expenses are balanced and more (ref)						
	Income is less than expenses	0,488	0,214	5,216	0,022	1,629	1,072-2,475
	Perception of Health Status						
	Very good (ref)						
	Middle and very bad	0,571	0,159	12,840	0,000	1,770	1,295-2,418
	Gravida						
	1.and 2. pregnancy (ref)						
	3 pregnancy and above	0,660	0,168	15,412	0,000	1,935	1,392-2,690

In our study, it was positive that 86.9% of pregnant women had a moderate and high quality of life from physical, 84.1% from mental, 89.6% from social and 82.6% from environmental domains. According to these results, the quality of life of 82.6% of pregnant women is good in all subscales. In a large community study with 3936 pregnant women in the first, second and third trimester, Bai et al[13] found that more than 60% of pregnant women had a healthy physical level, 86% had a healthy mental level throughout the pregnancy. The results of this study are consistent with the results obtained in our study, and even the pregnant women in our study have a better quality of life. However, unlike the findings of our study, many studies conducted in Iran showed that the quality of life of pregnant women in Iran was significantly lower than the overall population of Iranian women[14]. This difference may be due to differences in sociocultural and socioeconomic levels.

In our study, pregnant women who were aged 19 and below, whose duration of marriage were 5 years, who had no chronic disease, who perceived their health as very good, who had first and second pregnancies, who did not give birth before and who were ready for the role of motherhood had a higher quality of life in the physical domain. In quality of life physical domain, perceived physical health level was emphasized rather than measured physical health level. In the literature, there are studies in accordance with our study results showing that the quality of life of the pregnant women who have first pregnancy is better[15], the quality of life of women with high parity may be lower in the physical domain[16] and that the quality of life of pregnant women with chronic disease may be worse in both short and long terms[17]. In the study of Calou et al[18] gestational age and maternal age constituted 51% of the negative changes in the quality of life of pregnant women. In contrast to this result, another study showed that there was a higher prevalence of sleep in young pregnant women due to the presence of hormonal changes that are characteristic of this age group[19]. In many studies, young mothers' age is associated with poor quality of life[13] and this is in conflict with our results. Those who experienced their first pregnancy in the early period may have felt physically better and showed more positive parenting behavior as they were more excited and willing.

Quality of life mental domain was higher in pregnant women who had education at the level of high school or more and in illiterate ones, who were married for 5 years, who were working, who had nuclear families, who had higher income than their expense, who perceived their general health as very good, who had first and second pregnancies, who did not give birth before, who planned their pregnancy and who stated that they were ready for motherhood role. Low education, financial dissatisfaction, and unplanned pregnancy lead to poor quality of life[13]. Calou and et al[20] reported that women with poor financial status/lack of financial security tended to have a lower quality of life than women with financial security and that this may affect the future health or well-being of mothers. Çalıkoğlu et al[15] also found high mental health scores in pregnant women who had a regular income, who planned their pregnancy and who had no chronic disease. Unplanned pregnancy was found to be an important risk factor for mental health in women[21,22]. Moreover, that unplanned pregnancies can affect women's mental health more than physical health[22] is supported by our study results. The results of a qualitative study have also showed that planned pregnancy brings with it the happiness of pregnant women[2].

Quality of life social domain was higher in pregnant women who had education at the level of high school or more and in illiterate ones, who were married for 5 years, who were working, who had nuclear families, who had higher income than expense, who perceived their general health as very good, who had their first pregnancy and who did not give birth before. In the study of Çalıkoğlu et al[15] social functioning scores of those having an education above primary education, having a regular income, having social security, having a first pregnancy and having a planned pregnancy are higher. In another study, it was determined that the quality of life social domain scores of the pregnant women who had an education above primary school and whose income was good were better[11]. The results of this study are consistent with our study results.

Quality of life environmental domain was higher in pregnant women who had education at the level of high school or more and in illiterate ones, who were married for 5 years, who were working, who had nuclear families, who had higher income than expense, who perceived their general health as very good, who had their first pregnancy, who did not

give birth before and who planned their pregnancy. In the study of Altıparmak[11], environmental domain scores of those having an education above primary education, working, having a regular income, living in a nuclear family and having a planned pregnancy were higher. The results of this study are consistent with our study results.

In our study, the quality of life of mental, social and environmental domains of the pregnant women who perceived their income to be more than their expenses was higher. In the study of Kara et al[23] the quality of life mean scores of pregnant women with low socioeconomic status were found to be significantly lower than those with high socioeconomic status. Our study is significant in terms of showing the obstetric and demographic differences of the pregnant women who have good socioeconomic status and who do not. In women with low socioeconomic status, quitting education, unemployment, and social isolation can be seen commonly. In such a case, pregnancy may adversely affect the mother and the fetus.

Regression analysis showed that education affected the mental and environmental domains of the quality of life negatively. In some studies, it was found that educational level had a positive effect on quality of life[11,15]. It was observed that the mental domain of quality of life of pregnant women with education higher than primary school was better than the other pregnant women. There are studies supporting this idea[11,15]. As the level of education increases, it is thought that the awareness of the pregnancy period and the expectations of the health services will increase, pregnant women's expectations will be met, their satisfaction and the quality of life will increase as much as they can cope better with the problems. The quality of life of the pregnant women who perceived their income to be less than expense was negatively affected by the environmental domain. Quality of life increases as the economic status of the pregnant woman increases. This relationship was also found in the study of Altıparmak[11]. Low-income level is considered an important factor in the low quality of life of pregnant women[24].

In the regression analysis, it was determined that the perception of the health status of pregnant women affected all domains of the quality of life. Calou et al[18] found that the physical, mental, environmental and social changes in pregnancy affected the relationships between the pregnant and other people and that the support of the spouse and the environment showed a positive 30% effect in the quality of life of the pregnant woman. Pregnancy-related physical and mental disorders limit the activities of the pregnant women and even minor changes can significantly affect the daily life of the pregnant woman[25]. Therefore, it is thought that how the pregnant woman perceives her health and how she feels herself are effective in all domains of the quality of life.

Having two and more births had a negative impact on the physical domain of the quality of life, having one and more birth had a negative impact on the mental and social domains, and having three or more pregnancies had a negative impact on the environmental domain. As the number of pregnancies and births increases, the quality of life of pregnant women is negatively affected. In a Gambia study, it was found that having at least one child was one of the goals of marriage and that most of the pregnant women were happy to be pregnant[26]. It can be thought that pregnant women who are more excited in their first pregnancies may feel psychologically worse in later pregnancies with the negative effect of not taking time and the increase in responsibility as a result of the pregnancy and the number of children. In addition, the increase in the number of pregnancies and births may cause physical and mental depletion of the mother and various health problems. For all these reasons, it is thought that the environmental domain quality of life and the general health perception of pregnant women are affected negatively. Chang et al[7] showed that the negative health condition with increasing number of pregnancies and children were factors that decrease the quality of life.

Being a mother is a happy event for a woman but also a difficult state of change that requires new roles and responsibilities[27]. In our study, not being ready for the role of parenting had a negative effect the mental domain of quality of life. Maternity role is gained after birth, starting from the pregnancy period, the high level of education of mothers has a positive effect on maternal role development[27]. Accordingly, in our study, being a primary school graduate affected the mental domain of the quality of life negatively. Pregnant women with high level of education can be considered to have higher self-confidence, they search more about baby care issues during pregnancy, thus increasing their confidence in the baby care and all these factors make them feel

ready for the maternity role of pregnant women.

This study is important and remarkable in terms of conducting it as a home visit, in terms of the lack of national and international studies evaluating the quality of life in pregnant women in the last trimester and in terms of achieving the results to fill the gap in the literature. In the study, the relationship between quality of life and sociodemographic variables in the third trimester pregnant women was explained along with causality relationship. This study is also important in terms of having a large population consisting of 742 pregnant women in the third trimester, evaluating the quality of life of pregnant women in physical, social, mental and environmental aspects and in terms of determining the factors causing the low quality of life.

The physical, mental, social and environmental domain mean scores of the pregnant women were 13.8, 14.5, 14.6 and 14.8, respectively. Although this study determined the quality of life scores of pregnant women, it also showed that different factors could affect the quality of life of pregnant women. The quality of life of third-trimester pregnant women was affected by general health perception, educational level, number of pregnancies and births, the perception of economic status and being ready for the parental role. It is important that health care professionals, especially the midwives, provide care for pregnant women and determine the factors that affect the quality of life of the pregnant women in the third trimester. Midwives and other health professionals should recognize factors that adversely affect the quality of life in pregnant women and cooperate among disciplines to address them at an early stage to prevent inequalities in quality of life. As a result, health professionals should pay more attention to the quality of life of pregnant women and affecting factors. In the evaluation of the quality of life of pregnant women, it is recommended to perform qualitative studies and to perform studies in large samples in which the quality of life and the affecting factors of the same pregnant woman in each trimester are determined.

Limitations of the study: When the literature was examined, no similar study was found in the same sample size and as a home visit with third-trimester pregnant women. In this respect, this study is the first study in the case of a large community in the form of a home visit. However, it can be generalized only to pregnant women in the province center of the country where the study is conducted.

Yazar Katkıları: Çalışma konsepti/Tasarımı: GD, DB, SAÖ; Veri toplama: GD, DB; Veri analizi ve yorumlama: SAÖ; Yazı taslağı: GD; İçeriğin eleştirel incelenmesi: GD, DB; Son onay ve sorumluluk: GD, DB, SAÖ; Teknik ve malzeme desteği: -; Süpervizyon: GD; Fon sağlama (mevcut ise): yok.
Bilgilendirilmiş Onam: Katılımcılardan yazılı onam alınmıştır.
Hakem Değerlendirmesi: Dış bağımsız.
Çıkar Çatışması: Yazarlar çıkar çatışması beyan etmemişlerdir.
Finansal Destek: Yazarlar finansal destek beyan etmemişlerdir.
Yazarın Notu: Bu araştırma, 1. Uluslararası Doğu Akdeniz Ebelik Kongresi'nde (11-14 Mayıs 2017, Adana, Türkiye) sözlü bildiri olarak sunulmuştur

Author Contributions: Concept/Design : GD, DB, SAÖ; Data acquisition: GD, DB; Data analysis and interpretation: SAÖ; Drafting manuscript: GD; Critical revision of manuscript: GD, DB; Final approval and accountability: GD, DB, SA; Technical or material support: -; Supervision: GD; Securing funding (if available): n/a.
Informed Consent: Written consent was obtained from the participants.
Peer-review: Externally peer-reviewed.
Conflict of Interest: Authors declared no conflict of interest.
Financial Disclosure: Authors declared no financial support
Ackowledgement: This research was presented as an oral statement at 1st International Eastern Mediterranean Midwifery Congress, (11-14 May 2017, Adana, Turkey).

KAYNAKLAR

1. Gölbaşı Z. Postpartum dönemde erken taburculuk, evde bakım hizmetleri ve hemşirelik. C.Ü. Hemşirelik Yüksek Okulu Dergisi. 2003;7:15-22.
2. Kazemi F, Nahidi F, Kariman N. Exploring factors behind pregnant women's quality of life in Iran: a qualitative study. Electronic Physician. 2017;9:5991-6001.
3. Mckee MD, Cunnıngham M, Jankowskı KRB, Zayas L. Health-related functional status in pregnancy: Relationship to depression and social support in a multi-ethnic population. Obstetric Gynecol. 2001;97:988-93.
4. Wang P, Liou SR, Cheng CY. Prediction of maternal quality of life on preterm birth and low birthweight: a longitudinal study. BMC Pregnancy Childbirth. 2013;13:124.
5. Lau Y. The effect of maternal stress and health-related quality of life on birth outcomes among Macao Chinese pregnant women. J Perinatal Neonatal Nurs. 2013;27:14-24.
6. Kartal T. Eskişehir il merkezinde yaşayan gebe gebelerde anemi prevalansının ve yaşam kalitesi ile ilişkisinin belirlenmesi (Yüksek lisans tezi). Eskişehir, Osmangazi Üniversitesi, 2016.
7. Chang SR, Chen KH, Lin MI, Lin HH, Huang LH, Lin WA. A repeated measures study of changes in health-related quality of life during pregnancy and the relationship with obstetric factors. J Adv Nurs. 2014;70:2245-56.
8. Mermer G, Bilge A, Yücel U, Çeber E. Gebelik ve doğum sonrası dönemde sosyal destek algısı düzeylerinin incelenmesi. Psikiyatri Hemşireliği

Dergisi. 2010;1:71.
9. Selvi P. Sivas ilinde yapılacak saha araştırmalarında kullanılmak üzere çeşitli sayı ve nitelikte örnekleme planının geliştirilmesi (Yüksek lisans tezi). Sivas, Cumhuriyet Üniversitesi. 2008.
10. Eser E, Fidaner H, Fidaner, C, Eser SY, Eser E, Göker E. Psychometric properties of the WHOQOL-1OO and WHOQOL-BREF. Psychiatry Psychology Psychopharmacology Journal. 1999;7:23–40.
11. Altıparmak S. Gebelerde sosyodemoğrafik özellikler, özbakım gücü ve yaşam kalitesi ilişkisi. TAF Preventive Medicine Bulletin. 2006;5:416-23.
12. Altıparmak S, Yanıkkerem E, Karadeniz G. Gebelerde sosyodemoğrafik özellikler, gebelik sorunları ile yaşam kalitesi ilişkisi. Klinik Bilimler&Doktor. 2005;11:536-42.
13. Bai G, Raat H, Jaddoe VWV, Mautner E, Korfage IJ. Trajectories and predictors of women's health-related quality of life during pregnancy: A large longitudinal cohort study. PLoS ONE. 2018;13(4):e0194999.
14. Abbaszadeh F, Baghery A, Mehran N. Quality of life among pregnant women. Journal of Hayat. 2009;15:41-8.
15. Çalıkoğlu EO, Akcay HB, Kavuncuoglu D, Tanriverdi EÇ, Yerli EB, Salcan S. Erzurum il merkezinde yaşayan üçüncü trimester gebelerin sosyodemografik özellikleri ve yaşam kaliteleri. Fam Pract Palliat Care. 2018;3:33-8.
16. Singh S, Kaur R, Singh S. Relationship of parity and health related quality of life among women. Human Biology Review. 2015;4:159-66.
17. Marchetti D, Carrozzino D, Fraticelli F, Fulcheri M, Vitacolonna E. Quality of life in women with gestational diabetes mellitus: A systematic review. J Diabetes Res. 2017;12:ID 7058082.
18. Calou CGP, De Oliveira MF, Carvalho FHC, Soares PRAL, Bezerra RA, De Lima SKM, et al. Maternal predictors related to quality of life in pregnant women in the Northeast of Brazil. Health Qual Life Outcomes. 2018;16:109.
19. Hedman C, Pohjasvaara T, Tolonen U, Suhonen-Malm AS, Myllyla VV. Effects of pregnancy on mothers' sleep. Sleep Med. 2002;3:37–42.
20. Calou CGPP, Pinheiro AKB, Castro RChMB, Oliveira MFD, Aquino PDS, Antezana, FJ. Health related quality of life of pregnant women and associated factors: an ıntegrative review. Health Promot Pract. 2014;6:2375-87.
21. Lau Y, Yin L. Maternal, obstetric variables, perceived stress and health-related quality of life among pregnant women in Macao, China. Midwifery. 2011;27:668-73.
22. Ali A. Relationship between unwanted pregnancy and health-related quality of life in pregnant women. Journal of the College of Physicians and Surgeons-Pakistan: JCPSP. 2016;26:507.
23. Kara M, Çağlayan EK, Karaçavuş S, Erdoğan Y. Yozgat ilinde yaşayan gebelerin sosyoekonomik ve demografik faktörler açısından değerlendirilmesi, Cumhuriyet Tıp Derg. 2012;34:158-63.
24. Ramírez-Vélez R. Pregnancy and health-related quality of life: a cross sectional study. Colombia Médica. 2011;42:476-81.
25. Agampodi SB, Wickramasinghe ND, Horton J, Agampodi TC. Minor ailments in pregnancy are not a minor concern for pregnant women: a morbidity assessment survey in rural Sri Lanka. PLoS ONE. 2013;8:e64214.
26. Sawyer A, Ayers S, Smith H. Sidibeh J, Nyan O, Dale J. Women's experiences of pregnancy, childbirth, and the postnatal period in The Gambia: a qualitative study. Br J Health Psychol. 2011;16:528-41.
27. Koç Ö, Özkan H, Bekmezci H. Annelik rolü ve ebeveynlik davranışı arasındaki ilişkinin değerlendirilmesi. İzmir Dr. Behçet Uz Çocuk Hast. Dergisi. 2016;6:143-50.