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Determination of Quality of Life and Affecting Factors in Pregnant Women

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Abstract:

Background: The physiological and psychosocial changes in pregnant women can affect the quality of life. Increasing the quality of life of mother and infant in pregnancy is important to prevent some risks from occurring

Objective:

The research was conducted to measure the quality of life in pregnant women and examine the factors related to quality of life.

Method:

The sample of this study consisted of 392 pregnant women who had no communication problems and who were at 10 weeks and more of gestation and who came to Sivas State Hospital Obstetrics and Gynecology Clinic between April 15-May 24, 2013. The data was collected using the questionnaire form (31 questions) and the SF-36 quality of life scale. Average, standard deviation, percentage, independent two sample t-test, Anova tests were used in the evaluation of data (SPSS 14 package program) and statistical significance was examined at 0.05 significance level.

Results:

Average scores of the quality of life subscale are 54.20 for physical function, 42.85 for physical role, 35.53 for pain, 47.44 for social function, 53.27 for general health, 48.63 for emotional role, 54.29 for mental health and 54.68 for vitality. In terms of pain subscale scores, the difference between the risky and non risky pregnant women was statistically significant ($p < 0.05$). The difference between the physical role, pain and emotional role subscale scores of the pregnancies with and without the risk of the current pregnancy was statistically significant ($p < 0.05$). The average subscale scores for the current and the unaffected pregnancies are 33.50-48.65 for the physical role, 38.20-33.88 for the pain, and 42-52.75 for the emotional role. The average pain score was found to be 39.48 at pregnant women who were at risk in obstetric area and 34.23 at pregnant women who were not at risk.

Conclusion:

According to the results of the research, the best health indicator from the quality of life subscales is the vitality, while the worst health indicator is pain. The quality of life of pregnant women who have risks in the current pregnancy is affected negatively.

Key Words: Pregnant, woman, health, quality of life.

INTRODUCTION

Pregnancy is a part of life, and for women and family it is an important life experience. Women experience a variety of physiological and psychological changes although they affect their experiences at different levels from the onset of pregnancy [1-3]. These physiological and psychosocial changes in pregnant women can affect the quality of life [4].

The quality of life is an expression of individual well-being and a subjective satisfaction in different areas of life [5,6]. The quality of life indicators are discussed in two ways: objective (physical well-being and effectiveness, self-care, action, role effectiveness, etc.) and subjective (psychological, social, material well-being, etc.) [7]. Quality of life aims at determining to what extent people are satisfied with their physical, psychological and social functions, and to what extent they are disturbed by the presence or absence of the features of these aspects of their lives [8,9].

Increasing the quality of life of mother and infant in pregnancy, which is a natural and physiological process, is important to prevent some risks from occurring. Preventing these risks can only be achieved by evaluating the quality of life of the pregnant woman. Thus, it can be determined how

much women are satisfied with their physical, psychological and social functions and how much they feel discomfort from the presence or absence of features related to these aspects of their lives [10,11]. In this respect, midwives and nurses have important responsibilities in monitoring and care of pregnant women, evaluation of health problems, identification of risky situations, advance referral and treatment, care and improvement of quality of life. When fulfilling these responsibilities and planning the care, the midwife/nurse needs to know what health problems the pregnant patients experienced and how these health problems affected their quality of life [12]. It is also stated that the birth of pregnant women with low quality of life in pregnancy may be adversely affected and the possibility of low birth weight infant may increase [13,14]. Despite the importance of this issue, it is observed that there are not enough studies on the quality of life and affecting factors in our country and in the world. The aim of the study was to measure the quality of life in pregnant women and examine the factors related to quality of life.

METHODS

Study design:

This was a descriptive study.

Participant:

The population of this study consisted of pregnant women who applied to the Obstetrics and Gynecology Polyclinic of a state hospital within a year. The study sample consisted of 392 pregnant women who came between April 15 and May 24, 2013.

Setting of study:

The study was conducted at Sivas State Hospital Obstetrics and Gynecology Clinic.

Data Collection:

The research data was collected by 'Pregnant Identification Form' and 'SF-36 Quality of Life Scale' with 31 questions developed by the researchers.

Pregnant Identification Form: This form is based on the socio-demographic data (age, education level, number of family members, income status), previous marriage and health data (marital year, smoking and alcohol use), obstetric data (marital year, number of pregnancies, number of births, the number of abortus if any, the number of abortions if any, the number of living children, the number of stillbirths if any, the age of the youngest child), current pregnancy related data (gestational week, planning status, medication use, problems experienced, taking pregnancy follow-ups and hospitalization status, feelings about pregnancy and getting support in pregnancy).

SF-36 Quality of Life Scale: The SF-36 Quality of Life Scale is an individual assessment scale set by the Ware in 1992 [15] for use in clinical practice and research, evaluation of health policies and general population studies. The validity and reliability study in Turkey was made by Kocyigit *et al.* in 1999 [16]. Internal consistency was measured for reliability and Cronbach alpha coefficients for each subscale ranged from 0.7324 to 0.7612. Although the validity-reliability of the Turkish population was based on those with chronic illness, in essence, it was done to describe the health status of people, and to describe the health changes associated with minor health status in society. The scale consists of 36 items and provides 8 dimensional measurements. There were no significant differences in physical function (10 items), social function (2 items), physical role (4 items), role limitations due to emotional problems (3 items), mental health (5 items), vitality (4 items) and general perception of health (5 items). All expressions in the scale are evaluated considering the last 4 weeks. In addition, apart from the above items, there is a substance in the last 12 months on the scale that includes the perception of change in health ("How do you generally find your current health compared to a year ago?"). This item is not taken into account when evaluating the scale. SF-36 is scored in a way that as each health field score increase, health-related quality of life increase. All dimensions of quality of life as well as global quality of life can be evaluated with the scale. Each subscale's score ranges

from 0 to 100, global score is between 0 and 100. 0 is the worst health, 100 is the best health condition.

Questionnaire form and SF-36 quality of life scale were filled out using face-to-face interview technique. Questionnaire and the scale took about 15-20 minutes to complete.

Ethical considerations:

Before starting the research, permission was obtained from Sivas State Hospitals Association for Sivas State Hospital and from Cumhuriyet University Non-Interventional Clinical Research Ethics Committee (dated 29.05.2013 and numbered 302). Pregnant women who accepted the research criteria (no communication problem, 10 weeks and over pregnancy) were informed about the purpose and content of the study and their written consents were taken. In order for the data to be obtained correctly, it is stated that it is not obligatory to specify the name in the data collection form except for the confirmation form, and all kinds of information will remain hidden.

Data analysis:

The data obtained from the study was evaluated using SPSS 14.0 package program. Average, standard deviation, percentage, independent two sample t-test, Anova tests were used in the evaluation of data. Statistical significance was examined at 0.05 significance level.

RESULTS

39.5% of the pregnant women were in the 22-26 age group, 87% were housewives, 3.1% were illiterate, 74.2% were in the small family type, 77.1% had equal income and expense level and 57.9% were married for 1-5 years. The number of pregnancies of 63.6% pregnant women, the number of births of 79.1%, the number of abortus of 26.4%, the number of abortions of 5.6%, the number of children of 81.1%, and the number of stillbirths of 7.6% are 1 or 2. 64.9% of pregnant women's youngest child is between 1-5 ages.

When we look at the risks in the current pregnancy, 1.3% of pregnant women had multiple pregnancy, 2.3% were younger than 18 years, 6.9% were over 35 years old, 5.6% had Rh incompatibility, 5.9% had vaginal bleeding, 1.3% had pelvic mass, 2.6% had blood pressure above 90 mmHg and 23.2% had anemia. When we look at the risks in the obstetric area, 11.2% of pregnant women had stillbirths in their previous pregnancies, 5.4% had preterm delivery, 3.3% had 3 or more abortus, 1.8% had infants with anomaly, 7.1% had less than 2.500 grams of baby weight, 2.6% had more than 4500 grams of baby weight, 2% of them were hospitalized due to high blood pressure or preeclampsia during their last pregnancy, and 1.3% had undergone reproductive organ operation. When we look at the risks in general medical history, 1% of pregnant women had renal disease, 0.8 had cardiovascular disease, 3.8% had thyroid disease, 0.3% were thalassemia carriers, and 1.8% had cigarette and alcohol addiction.

Table 1: Distribution of average scores of pregnant women according to subscales

	n	Minimum	Maximum	X	SD
Physical function	392	0,00	100,00	54,20	26,67
Physical role	392	0,00	100,00	42,85	42,19
Pain	392	0,00	90,00	35,53	20,32
Social function	392	0,00	87,50	47,44	15,37
General health	392	5,00	90,00	53,27	10,48
Emotional role	392	0,00	100,00	48,63	42,75
Mental health	392	0,00	100,00	54,29	12,80
Vitalness	392	10,00	100,00	54,68	14,64

Table 1 shows the quality of life subscale average scores that vitalness is 54.68, mental health is 54.29, physical function is 54.20, general health is 53.27, emotional role is 48.63, social function is 47.44, physical role is 42.85, pain is 35.53.

Table 2: Distribution of quality of life subscale average scores of pregnant women according to their current pregnancy risk

	Current pregnancy risk	n	X	SD	t	p
Physical function scale score	risk	150	53,26	27,28	-0,55	0,58
	no risk	242	54,79	26,33		
Physical role scale score	risk	150	33,50	40,84	-3,50	0,00*
	no risk	242	48,65	42,06		
Pain scale score	risk	150	33,88	20,16	2,05	0,04*
	no risk	242	38,20	20,36		
Social function scale score	risk	150	48,16	15,75	0,72	0,46
	no risk	242	47,00	15,15		
General health scale score	risk	150	54,43	10,35	1,72	0,08
	no risk	242	52,56	10,51		
Emotional role scale score	risk	150	42,00	42,02	-2,43	0,01*
	no risk	242	52,75	42,77		
Mental health scale score	risk	150	54,10	13,12	-0,23	0,81
	no risk	242	54,41	12,61		
Vitalness scale score	risk	150	55,23	14,76	0,58	0,55
	no risk	242	54,33	14,58		

Table 2 shows that the difference between the physical role, pain and emotional role subscale average scores of the pregnant women with and without risk in the current pregnancy is statistically significant ($p < 0.05$). The average

subscale scores of pregnant women with and without risk in the current pregnancy are 33.50-48.65 for the physical role, 33.88-38.20 for the pain, and 42-52.75 for the emotional role, respectively.

Table 3: Distribution of quality of life subscale average scores of pregnant women according to their obstetric risks

	Obstetric risk	n	X	SD	t	p
Physical function scale score	risk	97	50,36	26,37	-1,64	0,10
	no risk	295	55,47	26,70		
Physical role scale score	risk	97	40,20	40,27	-0,71	0,47
	no risk	295	43,72	42,84		
Pain scale score	risk	97	34,23	21,85	2,21	0,02*
	no risk	295	39,48	19,65		
Social function scale score	risk	97	47,03	17,65	-0,30	0,76
	no risk	295	47,58	14,58		
General health scale score	risk	97	53,04	10,32	-0,25	0,79
	no risk	295	53,35	10,55		
Emotional role scale score	risk	97	44,32	42,14	-1,14	0,25
	no risk	295	50,05	42,93		
Mental health scale score	risk	97	53,07	10,82	-1,08	0,27
	no risk	295	54,69	13,37		
Vitalness scale score	risk	97	53,55	14,50	-0,87	0,38
	no risk	295	55,05	14,69		

Table 3 shows that only the difference between the risk and the non-risk pregnant women is statistically significant ($p < 0.05$). The average pain scale score has been found to be 34.23 at pregnant women with risk in obstetric area, while the pain score at the non-risk pregnant women has been found to be 39.48. In addition, the difference between the average scores of the quality of life subscale scores according to sociodemographic characteristics and general medical risks of the pregnant women is not statistically significant ($p > 0.05$).

DISCUSSION

For a healthy pregnancy and a healthy mother-infant, it is important that the family is able to adapt to the changes that occur in their lives with pregnancy [13,17]. For some women, pregnancy is a very important and happy event, but it may be a source of sadness for some. For this reason, it is necessary to determine the risk factors that affect women's reactions to pregnancy and compliance [4,13,17,18].

Average scores of the quality of life subscales are 54.20 for physical function, 42.85 for physical role, 35.53 for pain, 47.44 for social function, 53.27 for general health, 48.63 for emotional role, 54.29 for mental health and 54.68 for vitality. In Ozcelik's study [11], general health was 66.88, physical function was 52.95, mental health was 50.48. In Calou's study [12], it was found that physical role and social function subscale scores were higher than other subscale scores. Chang *et al.* [17] reported mental health average score as highest in pregnancy, Sonmezer *et al.* [18] and Kartal and Sayiner [19] reported general health average score as highest in pregnancy. Research data show that pregnant women feel better about themselves, especially in terms of physical function, general and mental health, and are satisfied with these aspects of their lives. It can be said that in the direction of the data, women are able to fulfill social and physical activities and they feel calm, happy, comfortable, lively and energetic in pregnancy.

Serious physiological, biological and psychological changes can be seen in pregnant women [18]. Physiological and psychological disturbances in pregnancy are important in increasing maternal, fetal and newborn mortality and morbidity risk [4]. In our study, the average subscale scores in pregnant women with and without risk was 33.50-48.65 for the physical role, 33.88-38.20 for the pain, and 42-52.75 for the emotional role, respectively. In the study of Sahsivar *et al.* [10] and Calou *et al.* [12], it was determined that the average physical function, mental health, social function and general health scores in the risky group were lower than those in the non-risk group. In Nansel *et al.*'s study [20], physical role, emotional role, social function average scores of pregnant women who were under risk due to premature birth threat were found to be lower than the normal pregnant women at the same age group. In the study of Wanda and Lisa [21] and Lau and Yin [4], similarly, the physical and emotional role scores of risky pregnant women were found to be lower than those of non-risk. Pires *et al.* [22] reported that risky pregnancies may lead to anxiety and decrease quality of life. In Chang *et al.*'s study [17] in which they studied the changes in quality of life of 358 Taiwanese women during pregnancy and their relation to obstetric factors, it was found that multiparity, previous infertility, the use of assisted reproductive techniques, etc. were effective on quality of life. It was determined that risk factors in obstetric history have had a negative impact on the quality of life [17]. In this regard, the data in our study supports the study of Chang *et al.* [17]. In our study, the average pain scale score was 34.23 in the pregnant women who had an obstetric area risk, whereas the pain scale score was 39.48 in the non-risk pregnant women. The results of the studies show that almost all aspects of life of pregnant women who are at risk in the current pregnancy are affected negatively compared to those who are not at risk in the current pregnancy. It can be said that the pregnant women who are at risk of the current pregnancy are not particularly satisfied with their physical and emotional role life aspects.

CONCLUSION AND RECOMMENDATIONS

According to the results of this research, the best health indicator from the quality of life subscales is the vitality, while the worst health indicator is pain. The quality of life of pregnant women who have risks in the current pregnancy

is affected negatively. In line with these results, it is recommended to prepare and conduct in-service training programs aimed at improving the sensitivity of midwives and nurses about the risks that affect the quality of life of the pregnant women and to provide training and counseling services about the pregnancy related health problems and to perform experimental studies showing the effectiveness of the training and counseling services provided for these risks.

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