



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

Determination of Anxiety Levels of Pregnant Women Living in Rural Areas

Kırsal Kesimde Yaşayan Gebelerin Kaygı Düzeylerinin Belirlenmesi

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Abstract:

The research was planned as a descriptive and cross-sectional to determine the anxiety levels of pregnant women living in a village in a region located in the Mediterranean Region of Turkey. The research took part between December 2020 and April 2021 with 230 women who were 16, 22, and 35 weeks pregnant. Data collection tools consist of the "Pregnant Identification Form" and "Cambridge Anxiety Scale (CAS)." The data were assessed by number, percentage, mean, standard deviation analysis of variance, Kruskal Wallis H, and Mann Whitney U tests in a computer environment. A statistically significant difference was determined between the age group of the spouses of the pregnant women, household size, income status and the number of pregnancies at 16 weeks of pregnancy, and the mean scores they got from the CAS ($p<0,05$). All pregnant women at 16, 22, and 35 weeks who stated that they had a risky situation in their current pregnancy had mean CAS scores that were statistically significantly higher than those who stated that there was no risky situation in their pregnancy ($p<0,05$). Consequently, it was observed that as the week of pregnancy increased, the anxiety level increased as well, and there were some variables that increased anxiety in pregnant women. Health professionals should determine the situations causing anxiety in pregnant women and act sensitively accordingly and provide training and consultancy services.

Keywords: Pregnancy, Anxiety, Rural Area

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Öz:

Araştırma Türkiye'nin Akdeniz Bölgesinde yer alan bir ilin bir ilçesindeki köylerinde yaşayan gebelerin kaygı düzeylerini belirlemek amacıyla tanımlayıcı ve kesitsel olarak planlanmıştır. Araştırma Aralık 2020-Nisan 2021 tarihleri arasında 16., 22. ve 35. haftada olan 230 gebeyle yapılmıştır. Veri toplama araçları "Gebe Tanıtım Formu" ve "Cambridge Kaygı Ölçeği (CKÖ)" nden oluşmaktadır. Veriler bilgisayar ortamında sayı, yüzde, ortalama, standart sapma varyans analizi, Kruskal Wallis H ve Mann Whitney U testi ile değerlendirilmiştir. Gebeliği 16. haftada olan gebelerin eşlerinin yaş grubuyla, ev halkı hane sayısı, gelir durumlarıyla ve gebelik sayısı ile CKÖ'nden aldıkları puan ortalamaları arasında istatistiksel olarak anlamlı düzeyde farkın olduğu tespit edilmiştir ($p<0,05$). Şu anki gebeliğinde riskli durumu olduğunu ifade eden 16., 22. ve 35. haftada olan tüm gebelerin CKÖ puan ortalamaları gebeliğinde riskli durum olmadığını ifade edenlere göre istatistiksel olarak anlamlı düzeyde yüksek olarak bulunmuştur ($p<0,05$). Sonuç olarak gebelik haftası arttıkça gebelerin kaygı düzeyinin arttığı ve gebelerde kaygıyı arttıran bazı değişkenlerin olduğu görülmüştür. Sağlık çalışanları, gebedeki kaygıya sebep olan durumları belirleyip ona göre duyarlı davranmalı, eğitim ve danışmanlık hizmeti vermelidir.

Anahtar Kelimeler: Gebelik, Kaygı, Kırsal Bölge

Introduction

Women are exposed to many factors that can cause anxiety and stress throughout their pregnancies (Gunay, 2013). Physical and anatomical problems caused by pregnancy can negatively affect the quality of life of pregnant women and, accordingly, cause anxiety. Studies conducted have shown that the severity of nausea and vomiting, stomach problems, or back pain throughout pregnancy has a negative impact on quality of life. During this time period, the factors that affect the attitude and adjustment to pregnancy are women's health, education, maturation, and cultural level, marital adjustment, being ready to be a mother, and people around the pregnant woman who affect her positively or negatively, planned pregnancy, the changes that will occur due to pregnancy, and the lack of correct and sufficient information necessary regarding birth (Can, Yılmaz, Cankaya and Kodaz, 2019).

Besides having children, being a mother gives women different happiness and pride. The pregnant woman and her family have different experiences during this period. Even though this experience gives happiness, the psychological and physical diseases seen in the birth and postpartum period can negatively affect life. This arouses anxiety in pregnant women (Gunay, 2013; Kucukkaya, Dindar, Ercel, and Yılmaz, 2017).

The meaning of the word anxiety is expressed as the psychological tension as a consequence of being in an unreal, stressful environment or stress in person (Kocak and Ege, 2016). The presence of the baby growing in the mother's womb every day, the risks that may arise at birth, the physiological changes in pregnancy, and the psychological changes caused by the hormones are the sources of anxiety. Some pregnant women easily adapt to the problems that arise during this period, while some have mild, moderate, and severe problems (Gunay, 2013; Kaplan, Bahar, and Sertbas, 2017; Tepebas, 2019). More than 20% of pregnant women are concerned both about their own health and also the health and well-being of their developing babies. Anxieties are experienced during pregnancy can significantly affect both maternal and infant health (Akbas, 2018).

Petersen et al. (2009) identified the following situations that caused the most anxiety: labor, something wrong with

the baby's health, taking care of the newborn baby, getting to the hospital for pregnancy controls and delivery, and the possibility of early and prolonged labor contractions (Petersen, Paulitsch, Guethlin, Gensichen and Jahn, 2009). Öhman et al. (2003) stated in their study that the cause for concern for 32% of women in maintaining the baby's health, for 28% is giving birth, and 17% is the possibility of miscarriage. (Öhman, Grunewald and Waldenström, 2003). The anxieties and worries about being within reasonable limits, socio-economic conditions and self-concept, and the family's existing social support system are seen among the factors that affect the adoption of pregnancy and coping with the changes seen in this process (Can et al., 2019). It is an undesirable way of life for pregnant women to be anxious during pregnancy and the postpartum period. Anxiety-causing factors in pregnant women should be determined, and actions to be taken accordingly should be determined (Akbas, 2018; Gunay, 2013; Kucukberber, 2017) because the anxiety experienced in pregnancy upsets the mother-to-be and causes complications such as false uterine contractions (Kugu and Akyuz, 2001). It has been determined in the studies that the anxiety experienced during pregnancy causes the prolongation of labor contractions the most. Besides, factors such as not having the strength and ability to deliver normally, fear of failure, long labor contractions, and the concern of harming the baby lead pregnant women to c-section delivery (Ust and Pasinlioglu, 2015).

According to the results of the literature reviewed, it is seen that it is important to determine the level of anxiety during pregnancy and the situations that cause anxiety, and that the anxiety experienced is a factor that can negatively affect both the expectant mother and the health of the baby. It is stated that some anxiety states experienced during pregnancy affect the expectant mother's compliance with the pregnancy process, cause complications such as false uterine contraction, and that expectant mothers tend to cesarean delivery due to prolonged labor contractions. The earlier the conditions that cause anxiety during pregnancy are identified, the sooner healthy interventions can be implemented accordingly. Determination of anxiety levels of pregnant women is considered important for the pregnant women in terms of ensuring the mother's bonding and adaptation status with the baby, both during pregnancy and in the postpartum process of becoming a family or for

the person who will newly join the family. It is important to do research on the anxiety levels of pregnant women and to determine the anxiety-causing factors. It is important to investigate the relationship between anxiety and these factors that cause anxiety during pregnancy. This research is directed to women living in villages in a district of a province in the Mediterranean Region of Turkey with the purpose of determining the anxiety levels of pregnant women. Accordingly, the main problem question of the research is as follows: What is the anxiety level of pregnant women according to gestational weeks, and what factors increase anxiety?

The sub-problem questions of the research are:

What is the effect of increasing gestational week on the anxiety level of pregnant women?

Does the age of pregnant women and their spouses affect the anxiety level of pregnant women according to gestational weeks?

Does the number of households affect pregnant women's anxiety level according to gestational weeks?

Does the number of pregnancies affect the anxiety level of pregnant women according to gestational weeks?

Does the current pregnancy's risky status affect pregnant women's anxiety level according to gestational weeks?.

Methods

Type, Universe and Sample of the Research

The descriptive- cross-sectional study was planned to be applied to pregnant women who were followed up in the health houses of a district of a province in the Mediterranean Region of Turkey. Descriptive research is to describe the situation or event that is being studied. Cross-sectional research is the study of the relationship between events, in particular, to explain, describe or describe the state of affairs at a fixed or defined point in time (Nahcivan, 2014). Due to the pandemic, health house staff in the district joined the filiation team at the District Health Directorate. As the health houses were closed because of this reason, the research was carried out between December 2020 and April 2021 in the Family Health Centers (FHC), where the pregnant women in those villages are affiliated.

All pregnant women living in villages in one of the districts of the province where the study was conducted constituted the universe of the research. 230 pregnant women who live in rural areas, have no communication problems, and are citizens of the Republic of Turkey constituted the sample of the research.

Pregnant women were included in the study by simple random sampling method, which is used when the individuals in the population are homogeneously distributed in terms of some important socio-demographic characteristics (age, gender, socio-economic status, etc.) and do not show clusters (Tezcan, 2017). In the literature, it is stated that the inclusion of at least 5 - 10 times the number of participants in the sample is sufficient to determine the sample size (Akgul, 2005; Esin, 2014; Saritepeci, 2018). A total of 80 pregnant women with at least 5 times the number of items in the 16-item scale administered at 16 weeks of gestation were included in the study. The scale applied at the 22nd week of pregnancy consists of 17 items, and 90 pregnant women who were

approximately 6 times the number of items were included in the study. The scale applied at the 35th week of pregnancy consists of 17 items, and an additional 11-item form is applied, where in 60 pregnant women, who were approximately 6 times the number of items in the scale, were included in the study. In the comparison of the 11-item scale with some socio-demographic characteristics of expectant mothers at 35 weeks of gestation. It is not included in the tables because there is no statistical significance.

Ethical Aspect of the Research

Verbal consent was obtained from the pregnant women who volunteered to participate in the study. Approval was obtained with the decision number 2020/052 from the Hasan Kalyoncu University Faculty of Health Sciences Non-Interventional Research Ethics Committee and the date of 23.07.2020 for the research to be carried out. Written permission was obtained from Kahramanmaraş General Directorate of Public Health.

Data Collection Tools

The data of the study were collected using the "Pregnant Identification Form and Cambridge Anxiety Scale (CAS)."

The pregnant information form consists of 31 questions that introduce the socio-demographic characteristics of pregnant women, their marriage and childbearing status and information about their obstetric history.

Cambridge Anxiety Scale; To determine general concerns about pregnancy and the baby to be born, its validity and reliability were established in a study conducted in 2003 by CAS, Green, Kafetsios, Statham and Snowdon (Green et al., 2003). It has been predicted that CAS can be used safely to measure anxiety in pregnancy (Petersen et al., 2009). The validity and reliability study on Turkish pregnant women was conducted by Gunay and Gul (2015). The scale is administered at the 16th, 22nd, and 35th weeks of pregnancy and at the 6th postpartum week. As the study was conducted on pregnant women, the postpartum scale was not included in the study (Gunay and Gul, 2015). Nevertheless, a problem occurred in following up the pregnant women included in the study at the 16th pregnancy week due to the pandemic when they reached the 22nd and 35th pregnancy weeks, and since the scale was applied independently according to the pregnancy week, CAS was applied to different pregnant women who were at 16, 22 and 35 weeks.

This Likert-type scale is graded according to a 6-point system (0 no anxiety, 1 very little anxiety, 2 a little anxiety, 3 moderate anxiety, 4 quite anxiety, 5 very much anxiety). It is observed that the higher the score on the scale, the higher the anxiety. A total score is not taken on the scale (Gunay and Gul, 2015).

Collection of Data

In the whole FHC that is connected to a district of the province where the research was conducted, there are 36 villages. The FHC was interviewed, and the pregnant women living in these villages were contacted over the phone; they used to call their assigned pregnant women with the help of FHC staff. Data were collected between 08.00 and 17.00 on weekdays. Data collection tools were applied for an average of 20 minutes to the pregnant women.

Analysis of Data

For database creation and statistical analysis, SPSS (Statistical Package for Social Sciences) package program was used. The results were assessed at the 95% confidence interval at the level of significance of $p < 0,05$. The number-percentage distribution of the data regarding the introductory characteristics of the pregnant women participating in the research was made. The suitability of the numerical variables to the normal distribution was assessed with the Kolmogorov-Smirnov test in the statistical analysis. For those that did fit the normal distribution, parametric t-tests and analysis of variance were used in independent groups and for values that did not fit, non-parametric Kruskal Wallis H and Mann Whitney U tests were used.

Results

It was found that 34,3% of the pregnant women participating in the study were between the ages of 18-25, 34,3% were secondary school graduates, 95,7% did not have a job, 65,2% had a child between 1-2 children, and 93,9% did not have a chronic disease. The mean age of the pregnant women was determined to be $28,23 \pm 5,95$ (minimum 18, maximum 44). The number of people living in the house of 67,4% of the pregnant women was determined to be between 1-4 people, and 52,6% of them stated an economic status as having less income than their expenses (Table 1).

Table 1. Socio-demographic Characteristics of Pregnant (n=230)

	n	%
The age group of pregnant women		
18-25	79	34,3
26-30	76	33,0
≥ 31	75	32,7
Education Status of Pregnant Women		
Literate or primary school graduate	74	32,2
Secondary school graduate	79	34,3
High school or university graduate	77	33,5
Employment Status of Pregnant Women		
Yes*	10	4,3
No	220	95,7
Educational status of spouses of pregnant women		
Literate or primary school graduate	45	19,6
Secondary school graduate	79	34,3
High school or university graduate	106	46,1
Employment status of pregnant women's spouses		
Employed**		
Unemployed	217	94,3
	13	5,7
Status of having children		
First pregnancy	41	17,8
1-2 children	150	65,2
3-5 children	39	17,0
Chronic disease status		
Yes***	14	6,1
None	216	93,9
Number of Household Members		
1-4 person	155	67,4
5-8 person	75	32,6
Income Status		
Income more than expenses	27	11,7
Income equals expense	82	35,7
Income less than expenses	121	52,6
Current week of pregnancy		
16	80	34,8
22	90	39,1
35	60	26,1

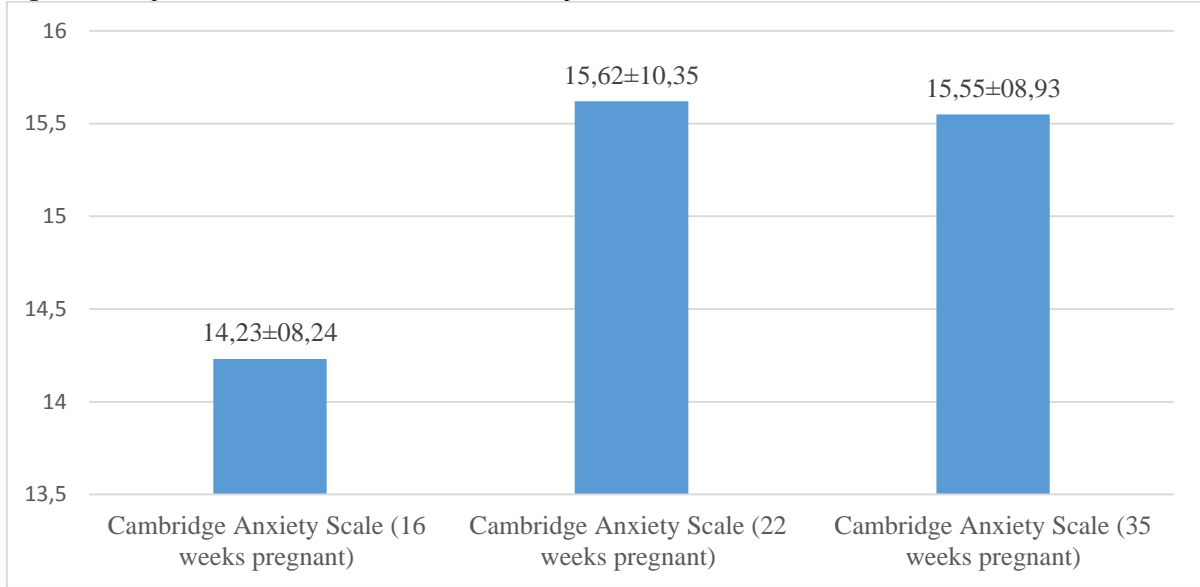
*Officer, self-employed, worker.

**Self-employed, officer, worker, working in her/his own garden/ field.

***Diabetes, hypotension, epilepsy.

The mean CAS scores of the pregnant women were compared according to their pregnancy weeks (Figure 1).

Figure 1. Comparison of Mean CAS Score in Three Groups



In the research, it was found that there was a statistically significant difference between the age group, the number of household members and income status of the spouses of the women who were 16 weeks pregnant and the mean scores they got from the CAS ($p<0,05$). It was determined that there was a statistically significant difference between

the age group, social security and income status, and duration of marriage of both pregnant women and their spouses spouses of the women who were 35 weeks pregnant and the mean scores they got from the CAS ($p<0,05$) (Table 2).

Table 2. Comparison of Cambridge Anxiety Scale Mean Scores of Pregnant Women in All Weeks with Some Socio-demographic Data

Socio-Demographic Data	Cambridge Anxiety Scale Mean±S.D (16 weeks)	Significance Values	Cambridge Anxiety Scale Mean±S.D (22 weeks)	Significance Values	Cambridge Anxiety Scale Mean±S.D (35 weeks)	Significance Values
Age group of pregnant women						
18-25	12,16±06,43	$X^2=1,37^*$	14,89±09,27	$X^2=0,34^*$	11,10±08,49	$X^2=6,12^*$
26-30	14,53±08,62	$p=0,24$	16,61±10,62	$p=0,84$	17,14±07,90	$p=0,04$
≥ 31	16,69±09,21		15,03±11,33		17,23±08,99	
The age group of the spouses of pregnant women						
21-30	10,48±06,00	$X^2=15,37^*$	17,37±11,14		10,42±07,67	$X^2=6,69^*$
31-35	13,68±07,98	$p=0,001$	15,58±10,89	$X^2=1,34^*$	18,50±08,37	$p=0,01$
≥ 36	19,90±07,93		14,00±09,17	$p=0,50$	17,37±08,80	
Education Status of Pregnant Women						
Literate or primary school graduate	13,23±07,53	$X^2=0,60^*$	16,34±08,06	$X^2=2,71^*$	17,59±09,73	$X^2=1,62^*$
Secondary school graduate	14,54±08,56	$p=0,74$	15,08±08,36	$p=0,25$	13,85±08,65	$p=0,20$
High school or university graduate	14,95±08,48		15,80±12,05		13,66±07,97	
Educational status of spouses of pregnant women						
Literate or primary school graduate	15,52±10,05	$X^2=2,47^*$	16,60±08,64	$F=0,09^{***}$	17,88±08,95	$X^2=4,01^*$
Secondary school graduate	12,32±06,32	$p=0,29$	12,32±06,32	$p=0,91$	15,82±09,63	$p=0,13$
High school or university graduate	15,14±08,49		15,14±08,49		12,76±08,08	
Social security status						
Yes	13,78±07,96	$U=430,50^{**}$	15,55±10,18	$U=465,00^{**}$	13,22±09,02	$U=157,50^{**}$
None	16,06±08,87	$p=0,32$	16,08±11,89	$p=0,97$	21,00±05,55	$p=0,002$
Number of Household Members						
1-4 person	13,24±08,57	$U=548,00^{**}$	15,63±10,51	$U=730,50^{**}$	13,78±08,29	$U=326,50^{**}$
5-8 person	15,90±07,20	$p=0,04$	15,59±10,10	$p=0,86$	17,39±09,62	$p=0,13$
Income Status						
Income more or equal to expenses	11,40±08,85	$U=481,00^{**}$	16,35±10,18	$U=898,00^{**}$	10,95±07,72	$U=231,50^{**}$
Income less than expenses	16,44±07,75	$p=0,003$	15,11±10,54	$p=0,49$	17,43±08,78	$p=0,006$
Marriage period of pregnant women						
1-5 years	12,27±07,20		16,92±11,41		10,90±08,17	$F=8,67^{***}$
6-10 years	15,28±08,02	$F=2,23^{***}$	14,59±10,66	$X^2=0,98^*$	19,00±07,16	$p=0,001$
11-17 years	17,33±10,20	$p=0,11$	14,68±07,24	$p=0,61$	19,81±08,15	
Total mean CAS score	14,23±08,24		15,62±10,35		15,55±08,93	

*Kruskall-Wallis H Test, **Mann Whitney U Test, ***One-way ANOVA Test

It was found that there was a statistically significant difference between the number of pregnancies and the risky situation in the current pregnancy of the women who were 16 weeks pregnant and the mean scores they got from the CAS ($p<0,05$). It was determined that there was a statistically significant difference between the risky situation in the current pregnancy of the women who were 22 weeks pregnant and the mean scores they got from the

CAS ($p<0,05$). It was found that there was a statistically significant difference between the number of pregnancies, the situation of getting help from relatives during pregnancy and first control time of pregnant women and status of the number of follow-ups until the current pregnancy week and the risky situation in the current pregnancy of the women who were 35 weeks pregnant and the mean scores they got from the CAS ($p<0,05$) (Table 3).

Table 3. Comparison of Cambridge Anxiety Scale Mean Scores of Pregnant at All Weeks with Data on Pregnancy and Obstetrics History

Pregnancy and Obstetrics Data on Their Stories	Cambridge Anxiety Scale Mean±S.D	Significance Values	Cambridge Anxiety Scale Mean±S.D	Significance Values	Cambridge Anxiety Scale Mean±S.D	Significance Values
	(16 weeks)		(22 weeks)		(35 weeks)	
Number of pregnancies						
Primigravida	11,00±05,69	F=3,05*	14,91±11,38	F=0,27*	10,71±10,16	F=2,49*
2-3 times	13,35±08,59	p=0,04	15,18±10,62	p=0,76	14,03±08,82	p=0,04
4-15 times	16,93±07,97		16,95±09,49		18,18 ± 08,06	
Number of children						
First pregnancy	11,50±5,66	F=2,14*	16,87±11,34	F=0,20*	15,88±09,43	F=3,16*
1-2 children	14,14±8,87	p=0,12	15,57±10,90	p=0,81	18,29±06,62	p=0,09
3-5 children	17,46±7,11		14,46 ± 06,69		21,33±13,01	
History of miscarriage						
Yes	14,95±07,95	U=563,50**	15,17±10,44	U=597,50**	14,33±09,73	U=305,50**
None	14,00±08,26	p=0,68	17,20±10,15	p=0,31	17,11±06,48	p=0,23
The situation of getting help from relatives during pregnancy						
Getting	14,54±08,93	U=730,00**	15,13±12,49	U=833,00**	13,02±08,75	U=289,50**
No	14,02±07,63	p=0,65	15,94±08,76	p=0,25	18,37±08,35	p=0,03
Emotional state when pregnancy is learned						
Happiness	13,93±08,43	U=418,00**	16,20±10,96	U=790,50**	14,56±08,36	U=179,50**
Sadness, anxiety, fear	15,53±06,88	p=0,39	14,19±08,69	p=0,71	18,55±11,62	p=0,30
The situation of encountering a sad event in pregnancy						
Yes***	14,44±11,47	U=0,006**	17,42±09,22	U=876,00**	21,90±05,42	U=234,50**
No	14,21±07,43	p=0,93	15,28±10,57	p=0,48	13,58±09,46	p=0,06
Pregnancy planning status						
Planned	13,75±08,43	U=341,50**	15,86±11,13	U=886,00**	14,30±08,24	U=131,50**
Unplanned	16,50±06,38	p=0,12	15,16±08,83	p=0,80	20,75±11,64	p=0,09
Availability of pregnancy control when desired						
Yes	14,05±08,31	U=365,00**	15,71±10,63	U=480,00**	14,28±08,45	U=163,50**
No	15,25±07,38	p=0,56	15,07±08,83	p=0,81	19,60±10,33	p=0,08
First control time of pregnant women						
1st month	13,81±08,35	U=608,00**	16,38±11,48	U=1000,00**	12,37±08,69	U=275,50**
Between 2nd and 3rd month	15,07±07,81	p=0,27	14,70±08,86	p=0,97	18,35±08,21	p=0,01
Status of the number of follow-ups until the current pregnancy week						
1-3 or 4-7 times	13,74±07,70	U=272,00**	14,37±07,05	U=849,50**	14,16±09,84	U=226,00**
8-14 times	17,70±10,62	p=0,25	16,15±11,49	p=0,99	16,66±07,27	p=0,04
The risky situation in the current pregnancy						
Yes****	21,33±06,88	U=203,50**	22,69±08,02	U=222,50**	21,08±09,44	U=161,00**
None	12,17±07,32	p=0,001	14,42±10,26	p=0,001	13,68±08,24	p=0,01
Total mean CAS score	14,23±08,24		15,62±10,35		15,55±08,93	

*One-way ANOVA Test, **Mann-Whitney U Test

*** Spouse quits their job, learns that a relative is sick, and a relative dies.

**** Risk of miscarriage, the baby with an anomaly, getting Covid-19 during pregnancy, fibroids, over 35 years old, bleeding, placenta previa, preeclampsia during pregnancy, hypertension, risk of premature birth.

Discussion

According to Table 2, it was found that there was a statistically significant difference between the age group, the number of household members and income status of

the spouses of the women who were 16 weeks pregnant and the mean scores they got from the CAS ($p<0,05$). No statistically significant difference was found between the mean anxiety scores according to the age of the fathers in Celen's (2013) study (Celen, 2013). In Kucukberber's (2017) study, when the relationship between fathers' age

and anxiety status was examined, it was found that the anxiety status did not change in accordance with age ($p>0,05$) (Kucukberber, 2017). The reason for the research findings being different from the results of these studies is that the research is being conducted in rural areas, the education level is low, and the income situation is low. In another research, it was detected that the anxiety scores of pregnant women with an extended family were significantly higher than the scores of those with an elementary family. In the same research, it was determined mothers whose income is less than their expenses have higher anxiety levels than the others and that anxiety decreases as the income situation improves (Akbas, Virit, Kalenderoglu, Savas and Sertbas, 2008). Ustgorul and Yanikkerem (2017) explained in their study that the extended family structure and low socio-economic status are risk factors affecting depression in postpartum women (Ustgorul and Yanikkerem, 2017). In another study, it was found that the low-income level was significantly related to pregnancy anxiety (Gourounti, Anagnostopoulos, and Sandall, 2014). Research findings are similar to the literature findings.

It was found that the mean CAS score of the pregnant aged 18-25 was statistically significantly lower than the scores of the pregnant aged 26-30 and 31 years and older ($p<0,05$) (Table 2). Similarly, it was determined that the mean CAS score of the pregnant women with spouses between the ages of 21-30 was statistically significantly lower than the pregnant women who were aged 31-35, 36 years, and older ($p<0,05$). In Celen's (2013) study that researches the anxiety levels and related factors of mothers and fathers with premature babies, there was no statistically significant difference between the state and continuous anxiety mean scores according to the age of the mothers and the age of the fathers (Celen, 2013). No relationship was found between age and anxiety in the studies (Akbas et al. 2008; Kucukberber, 2017). The fact that the research findings are different from the studies in the literature is due to the lack of information about the interventions in childbirth; as it was the first pregnancy of the pregnant women studied, it is thought that they do not worry because the pregnancy is voluntary or because most of them are in the extended family structure and so will solve the problems that pregnancy will bring with the family.

The mean CAS score of the pregnant women at 35th week without social security and whose income was less than their expenses was found to be high ($p<0,05$) (Table 2). According to the 2018 data of the Turkey Demographic and Health Survey (TDHS), 68,5% of women in the 15-49 age group in rural areas do not have social security, and it has been determined that the condition of not having social security is increasing from west to east (TDHS, 2018). Income levels of people without social security generally decrease because their spouses do not work or leave their jobs. In research conducted, it was determined that the perception of anxiety is higher in pregnant women who have low income, live in villages, have difficult living conditions today, and do not get support from their relatives and spouse (Tabur, 2007). In another research, it was found that pregnant women with low annual income experience more anxiety compared to those with middle and high-income levels (Gourounti et al., 2014). In other research in the literature, it has been determined that home economics increases the anxiety level of pregnant women (Kaplan et al., 2007; Ozdemir, Kariptas, and Yalcin, 2017). In families with economic difficulties, the news of

a new baby may be met with concern, considering that it will bring economic distress before happiness (Kilcarslan, 2008). The pregnant women included in our study are living in the villages, and the spouses of the majority of them work as workers; they are engaged in gardening or animal husbandry. As a result of these reasons and the thought that the new member will affect the home economy, their financial concerns are high.

The anxiety level of primigravidas at 16th and 35th weeks of pregnancy was found to be lower than those of pregnant women at 16th and 35th weeks who were pregnant 4-15 times ($p<0,05$) (Table 3). Different from the findings of the research, it was found that anxiety is high in primigravidas (Akbas et al., 2008; Kaplan et al., 2007; Ust and Pasinlioglu, 2015). In the research carried out by Ozdemir et al. (2017), the state anxiety levels of women who had their first pregnancy were higher than those of women who had their second pregnancy (Ozdemir et al., 2017). Primigravidas, in another study, were found to be slightly more anxious than women with childbearing experience (Petersen et al., 2009). In research, while the positive emotions of women who have their first child increase, it has been observed that their positive emotions decrease as the number of children increases (Unubol, Sunar and Sayar, 2020). It can be said that having knowledge about birth and postpartum period reduces anxiety but does not make anxiety go away. The reason for being different from our study is thought to be due to educational status and social environment. The reason why the anxiety level of people who were pregnant for the first time in the study was low is due to the fact that she has just started to experience the pregnancy process, she had theoretical knowledge about pregnancy and birth, or she has not experienced the birth before.

The mean CAS scores of all pregnant women at 16, 22 and 35 weeks who stated that they had a risky situation during pregnancy were found to be statistically significantly higher than those who stated that they did not have a risky situation in their pregnancy ($p<0,05$) (Table 3). By definition, risky pregnancy is a physiological and psychosocial condition that endangers the life and health of the mother, fetus, or newborn and increases the rate of morbidity and mortality. Many things, such as systemic diseases (diabetes, hypertension, HIV), obesity, adolescent pregnancy, pregnancy over the age of 35, or multiple pregnancies, cause the situations that add the pregnant woman to the risky pregnant group (Sogukpinar, Akmese, Hadimli, Balçık and Akın, 2018). Pregnant women are concerned about the unknown, especially since the assays were done during pregnancy (Kocak and Ege, 2016). It was determined that similar results to our research findings were found in the studies conducted (Ertekin et al., 2014; Yanikkerem, Ildan, Goker and Oruc, 2012; Yılmaz and Sahin, 2019). It was determined in another study that the psycho-social health status of pregnant women who had a risky pregnancy was worse, and their anxiety and stress levels were higher (Gumusdas, Apay, and Ozorhan, 2014). Thus, we think that early detection and control of risky situations in pregnancy by primary health care workers will also control anxiety in pregnant women.

The mean CAS scores of pregnant women at 35 weeks who stated that they did not get help from their relatives during pregnancy were found to be statistically significantly higher than those who stated that they got help from their relatives ($p<0,05$) (Table 3). Being aware

of the fact that in case social support, which can affect the health of mother and baby positively or negatively during pregnancy, is insufficient, it causes psycho-social problems (Sen and Sirin, 2013). In the research done by Mermer, Bilge, Yucel, and Ceber (2010), it was found that the need for social support is high in pregnant women who have an elementary family both during pregnancy and in the postpartum period (Mermer et al., 2010). In the study, it has been found that as the social support level of pregnant women increases, sleep disturbance decreases and drug use for sleep decreases, sleep quality is better and habitual sleep efficiency is high (Dikmen, 2020). Unlike the research findings, Gourounti et al. (2014) found that there was no significant relationship between social support, prenatal anxiety and anxiety in pregnant women (Gourounti et al., 2014). In the research we carried out, there is always someone who helps because pregnant women generally have an extended family. It is thought that the anxiety of pregnant women who have an elementary family is high because they do not live in an extended family environment.

When the CAS scores of pregnant women at 16 weeks are examined, it is observed that their anxiety levels are lower than those of pregnant women at 22 and 35 weeks of pregnancy (Figure 1). In the literature, it has been proven that anxiety increases in the last trimester of pregnancy (Kitapcioglu, Yanikkerem, Sevil and Yuksel, 2008). In a study done, it was found that the factors that contribute significantly to pregnancy-related high anxiety symptoms in pregnant women are older maternal age and social and medical concerns (Akinsulore, Temidayo, Oloniniyi, Olalekan and Yetunde, 2021). In the research, it is observed that pregnant women are getting worried as the delivery approaches.

Conclusion and Recommendations

It was found that the age of the spouse being high, the number of household members being high, the income status being low, and the number of pregnancies being four or more is effective in the high level of anxiety of the pregnant women at 16 weeks ($p < 0,05$). It was determined that the anxiety levels of the pregnant women at 35th week, who were younger both for themselves and for their spouses, were low ($p < 0,05$). It was determined that the anxiety levels of all pregnant women at 16, 22 and 35 weeks who stated that they had a risky situation in their

current pregnancy were effective ($p < 0,05$). Anxiety level was also high in pregnant women at the 35th week who did not have social security, had less than their income, had four or more pregnancies, and did not receive help from their relatives during pregnancy ($p < 0,05$).

As a result, as the pregnancy week increases, the anxiety level of pregnant women increases and it is observed that there are some variables that affect anxiety in pregnant women according to the pregnancy week. Partners, relatives or health personnel of the pregnant have great responsibilities in coping with the problems caused by pregnancy and reducing anxiety. In the case of evaluating a pregnant woman, healthcare professionals should also be sensitive to distinguish between somatic symptoms and anxiety and anxiety-causing situations.

The information obtained from the research is based on the self-report of pregnant women. Due to the fact that the research coincided with the pandemic period, it was not possible to collect face-to-face data, but it was ensured that the data were collected with an intensive study by contacting the FHC phone.

Declarations

Ethics Approval and Consent to Participate

Approval was obtained with the decision number 2020/052 from the Hasan Kalyoncu University Faculty of Health Sciences Non-Interventional Research Ethics Committee and the date of 23.07.2020 for the research to be carried out.

Consent for Publication

Verbal consent was obtained from the pregnant women who volunteered to participate in the study.

Availability of Data and Materials

For database creation and statistical analysis, SPSS (Statistical Package for Social Sciences) package program was used.

Competing Interests

The author declares that no competing interests in this manuscript.

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Not applicable.

Authors' Contributions

SA and DK formed the design of the study. DK conducted the data collection phase. SA analyzed the data. SA and DK drafted the article. SA and DK wrote the report of the research, and SA revised the article according to the journal. All authors have read and approved the final version of the article.

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