

# Evaluation of Sociodemographic Features and Anxiety Levels of Pregnant Adolescent and Adult Pregnancy

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## ABSTRACT

**Objective:** In this study, it was aimed to examine some sociodemographic characteristics and state trait anxiety levels of adolescent and adult pregnant women.

**Methods:** A total of 300 pregnant women were included in the study. 132 of the pregnant women are adolescent pregnant women and 168 are non-adolescent pregnant women. The data were collected by the researcher through face-to-face interviews. Data; It consists of an information form consisting of 23 questions related to sociodemographic characteristics and reproductive health, and State and Trait Anxiety scale questions. Chi-square and student-t tests were used in the analysis.

**Results:** When the mean age at marriage was examined, it was found that adolescent pregnant women ( $16.6 \pm 0.9$ ) were much lower than non-adolescents ( $20.6 \pm 3.1$ ). All of the spouses of non-adolescent pregnant women are working, and 22.7% of the spouses of adolescent pregnant women do not have a job. The rate of consanguineous marriage in adolescent pregnant women was found to be 28%. The mean of the state and trait anxiety scale is inversely proportional to the education level of the participants, and the mean of the scale decreases as the education level increases. The rate of not completing primary school was quite high in adolescent pregnant women and it was determined as 43.2%. This rate is 4.2% in non-adolescent pregnant women.

**Conclusion:** Higher anxiety is observed due to the low level of education of pregnant adolescents who have not yet completed their own development.

**Keywords:** Adolescent Pregnancy, Anxiety, Conditional Anxiety, Chronic Anxiety

## Ergen ve Erişkin Gebeliklerin Sosyodemografik Özellikleri ve Kaygı Düzeylerinin Değerlendirilmesi

### ÖZET

**Amaç:** Bu çalışmada adolesan ve yetişkin gebelerin bazı sosyodemografik özelliklerinin ve durumluk süreklilik kaygı seviyelerinin incelenmesi hedeflenmiştir.

**Yöntem:** Çalışmaya toplam 300 gebe dâhil edildi. Gebelerin 132'si adolesan gebeler, 168'i ise adolesan olmayan gebelerdir. Veriler araştırmacı tarafından yüz yüze görüşme yoluyla toplanmıştır. Veri; Sosyodemografik özellikler ve üreme sağlığı ile ilgili 23 sorudan oluşan bilgi formu ile Durumluk ve Sürekli Kaygı ölçeği sorularından oluşmaktadır. Analizlerde ki-kare ve Student-t testleri kullanıldı.

**Bulgular:** Ortalama evlenme yaşı incelendiğinde adolesan gebelerin ( $16.6 \pm 0.9$ ) ergen olmayanlara göre ( $20.6 \pm 3.1$ ) çok daha düşük olduğu bulundu. Ergen olmayan gebelerin eşlerinin tamamı çalışıyor ve Adolesan gebelerin eşlerinin %22.7'si işsizdir. Adolesan gebelerde akraba evliliği oranı %28 olarak bulundu. Durumluk ve sürekli kaygı ölçeğinin ortalaması, katılımcıların eğitim düzeyi ile ters orantılı olup, eğitim düzeyi arttıkça ölçeğin ortalaması azalmaktadır. Adolesan gebelerde ilkökulu bitirmeme oranı oldukça yüksekti ve %43.2 olarak belirlendi. Ergen olmayan gebelerde bu oran %4.2'dir.

**Sonuç:** Henüz kendi gelişimini tamamlayamamış olan adolesan gebenin eğitim seviyesinin düşük olması nedeniyle daha yüksek kaygı görülmektedir.

**Anahtar Kelimeler:** Adolesan Gebelik, Anksiyete, Durumluk Kaygı, Sürekli Kaygı

**T**he World Health Organization (WHO) adolescence is defined as the life between childhood and adulthood between the ages of 10-19. Adolescence is a period of physical, cognitive and psychosocial change and growth. It is an important phase in which the foundations of health are laid. This stage is a stage that should be considered because it is a stage in which young people interact with the environment and are affected cognitively. Adolescent pregnancy is defined as the pregnancy of people between the ages of 10-19 (1,2).

11% of births worldwide occur as a result of adolescent pregnancy. Complications of pregnancy develop in 23% of adolescents compared to non-adolescent women. And more than 90% of this occurs in developing countries(3).

Growth retardation, early and miscarriage risk, and neonatal death are among the risky outcomes that adolescent women frequently encounter during pregnancy (4).

Some risks arise due to the fact that adolescent pregnant women do not reach both physiological and psychological maturity. (5-7). According to 2018 TDHS data, it was determined that 4% of women in the 15-19 age group started to give birth to children (8).

Fear can be expressed as the anxiety of our body and mind in the face of a non-objective threat or danger. Encountering a frightening situation or an unusual object, internal and external conflicts, and difficulties in making decisions may cause anxiety (9).

Pregnancy and childbirth are a very important and unforgettable process for a woman. This process is much more important for adolescent pregnant women. As adolescents try to cope with the changes they experience without fully completing their own development, this situation will become more complicated when pregnancy is added. Adolescence is the transition period of the individual from childhood to adulthood with psychological, biological and social changes.

During this transition period, adolescent pregnant women experience much more anxiety than other pregnant women. Adolescent pregnancy is very important for public health. It is necessary and important to prevent early marriages and to minimize adolescent pregnancies as much as possible. In the study carried out; It was aimed to determine the sociodemographic characteristics, state and trait anxiety levels of pregnant adolescents and

non-adolescents in Melikgazi Health Group Presidency Region.

## MATERIALS AND METHODS

In this study, it was aimed to examine the sociodemographic characteristics and anxiety levels of adolescent and adult pregnant women. The research was carried out in 2008 in Istikbal Health Center, Yıldırım Beyazıt Health Center and Ahmet Gündeş Health Center Region, which are affiliated to Kayseri Melikgazi Health Group Presidency. A total of 2100 births took place in this region of health centers in 2007. By taking the adolescent pregnancy frequency of 10% (10) and the minimum acceptable value of 5%, it was calculated that 138 individuals should be recruited for the 95% confidence interval with the Epi Info 6.0 program. Pregnant women aged 19 and under were evaluated for adolescent pregnant women. It was planned to include an equal number of control groups in the research group from pregnant women who were not adolescents from the same region. Verbal consent was obtained by informing the pregnant women about the study. The questionnaire form was filled by the researcher by giving it to the pregnant women. Two forms were used to collect data in both groups. The first form consists of 11 questions about the sociodemographic characteristics of pregnant women, and the questions about reproductive health are made up of 12 questions and it is a questionnaire containing 23 questions in total. The second form is Spielberg et al. (11) state and trait anxiety scale. The scale determines state and trait anxiety levels. Each of the scales consists of two separate questions of 20 items. The analysis of the data was made with a computer using the SPSS package program. In the data, the numbers are in percentages; The means are given together with the standard deviations. Student t-test and one-way anova test were applied in the statistical comparison of the information in the data form and the scale scores. Chi-square test was used to compare qualitative data. A value of  $p < 0.05$  was considered statistically significant.

## RESULTS

A total of 300 pregnant women, 132 adolescents and 168 non-adolescents, were included in the study. The mean age of pregnant adolescents is  $17.4 \pm 0.5$ , and the mean age of non-adolescent pregnant women is  $26.0 \pm 5.1$ . The difference between the mean ages of the two groups was statistically significant ( $t=21.817$ ,  $p < 0.001$ ). While

the mean age at marriage was  $16.6 \pm 0.9$  in the adolescent group, it was  $20.6 \pm 3.1$  in the non-adolescent group. The difference between the mean age at marriage was found to be statistically significant ( $t=16.182$ ,  $p<0.001$ ). The mean age at first gestation was  $17.1 \pm 0.8$  in the adolescent group; In the non-adolescent group, it was found to be  $21.0 \pm 3.0$ , and the difference between the groups was statistically significant ( $t=16.324$ ,  $p<0.001$ ). It is the first pregnancy of all adolescent pregnant women. While it was the first pregnancy of 35.7% of the non-adolescent group, it was the second or more pregnancy of 64.3% ( $P<0.001$  with Fisher exact chi-square test).

The status of receiving prenatal care in adolescent and non-adolescent pregnant women is given in Table 1.

The distribution of pregnant and non-adolescent pregnant women according to the place where prenatal care is taken is given in Table 2.

While the rates of receiving antenatal care from a private physician did not differ between adolescent and non-adolescent pregnant women, it was determined that the health center and delivery house were used at a higher rate by adolescent pregnant women for prenatal care.

Some sociodemographic conditions of the participants are given in Table 3.

The results of state and trait anxiety mean scores between pregnant adolescents and non-adolescents are given in Table 4.

Although the mean anxiety score is high in adolescents, the difference is not statistically significant.

Status of receiving antenatal care	Adolescent		Not Adolescent		Total	
	n	%	n	%	n	%
Received	119	90,2	134	79,8	253	84,3
Not Received	13	9,8	34	20,2	47	15,7
Total	132	100,0	168	100,0	300	100,0

Table 2. Place of Prenatal Care in Pregnant Adolescents and Non-Adolescents

Place of prenatal care	Adolescent (n=132)		Not Adolescent (n=168)		X <sup>2</sup>	p
	n	%	n	%		
Health center	111	84,1	101	60,1	20,492	<0.05
Birth house	104	78,8	12	7,1	159,993	<0.05
Private physician	44	33,3	65	38,7	0,917	>0.05

\*Fisher exact chi-square test result

## DISCUSSION

Getting prenatal care is of key importance in assessing the health of the baby and the mother and in ending the birth in a healthy way. In our study, it was determined that adolescent pregnant women received more prenatal care (Antenatal care) than non-adolescent pregnant women. The study conducted by Gör Uslu and Çoban in 2020 (12) supports our study, and it was reported that 95.2% of adolescent pregnant women received prenatal care. Fulpagare et al. In the study they conducted in 2019 (13), it was determined that adolescent pregnant women received more prenatal care compared to adult pregnant women. When other studies in the literature were examined, it was found that adolescent pregnant women received antenatal care less frequently than adult pregnant women, and the findings were contrary to our study (14-16). As it can be seen in Table 2, when the place where prenatal care is taken is examined, it is seen that there is no significant difference between adolescent pregnant women and adult pregnant women in the frequency of giving birth at a private physician, but adolescent pregnant women often prefer the maternity hospital. In the study conducted by Mutlu (17), it was found that 84.5% of pregnant women were followed up in a private hospital and all of them were followed up by a doctor. 74.1% of the pregnant women gave birth in a private hospital.

Table 3. Some Sociodemographic Conditions of Pregnant Adolescents and Non-Adolescents							
	Adolescent		Not Adolescent		Toplam		
	n	%	n	%	n	%	
<b>Educational status</b>							
Did not complete primary school	57	43,2	7	4,2	64	21,3	X <sup>2</sup> =99,29 p<0,01
Primary school graduate	75	56,8	102	60,7	177	59,0	
High school and above	0	0,0	59	35,1	59	19,7	
<b>Social security</b>							
Yes	117	88,6	159	94,6	276	92,0	X <sup>2</sup> =3,623 p>0,05
No	15	11,4	9	5,4	24	8,0	
<b>Kinship</b>							
Yes	37	28,0	24	14,3	61	20,3	X <sup>2</sup> =8,621 p<0,05
No	95	72,0	144	85,7	239	79,7	
<b>co-occupation</b>							
Unemployed	30	22,7	0	0,0	30	10,0	X <sup>2</sup> =45,442 p<0,05
Worker	51	38,6	98	58,3	149	49,7	
Officer	8	6,1	17	10,1	25	8,3	
Tradesmen	43	32,6	53	31,6	96	32,0	
<b>Spouse education</b>							
Did not complete primary school	18	13,6	0	0,0	18	6,0	X <sup>2</sup> =45,442 p<0,05
Primary school graduate	57	43,2	93	55,4	150	50,0	
High school and above	57	43,2	75	44,6	132	44,0	
<b>Total</b>	<b>132</b>	<b>100,0</b>	<b>168</b>	<b>100,0</b>	<b>300</b>	<b>100,0</b>	

Tablo 4. State and trait anxiety mean scores between pregnant adolescents and non-adolescents.					
Status		n	Ortalama ± SS	t	p
		Adolescent	132	43,9 ± 7,9	1,841
Not Adolescent	168	42,1 ± 8,7			
Continuity	Adolescent	132	43,9 ± 7,0	1,731	>0,05
	Not Adolescent	168	42,5 ± 7,4		

In our study, as can be followed from Table 3, when some sociodemographic statuses of pregnant adolescents and non-adolescents were examined, it was determined that there was a significant difference between the education levels of pregnant adolescents and adult pregnant women, and 43.2% of pregnant adolescents did not graduate from primary school. When the kinship status with the spouse was examined, 28% of the adolescent pregnant women

had consanguineous marriages, and this rate was found to be 14.3% in adult pregnant women. The difference was found to be statistically significant. When evaluated in terms of spouse occupation, 22.7% of spouses of adolescent pregnant women do not have any job, while spouses of adult pregnant women are not unemployed (p<0.05). In the study conducted by Oğuz in 2018, it was reported that 1.4% of adolescent pregnant women and 5% of adult pregnant women were illiterate. While 20.5% of adolescent pregnant women do not have any social security, this rate was found to be 5.5% in adult pregnant women (18). In our study, it was determined that although the state and trait anxiety mean scores of adolescent pregnant women were higher than the non-adolescent group, the difference was not statistically significant. Among the reasons why adolescent pregnant women and their spouses have lower education and socioeconomic levels compared to adult pregnant women, they experience more economic difficulties, and the fact that they have not yet fully completed their own development can be counted among the reasons why their state and trait anxiety mean scores are high.

When the literature was searched, it was stated that women with low socio-economic status during pregnancy showed more frequent depressive symptoms. (19,20). Akbas et al. Contrary to our study, there was no relationship between income level and depression and anxiety in their study (21). In the study conducted by Can and Çakır on pregnant women, it was determined that the depression and anxiety scores decreased when the monthly income was high (22).

## CONCLUSION

In this study, in which the sociodemographic characteristics and state trait anxiety levels of adolescent and non-adolescent pregnant women were evaluated; Average monthly income is higher in non-adolescent pregnant women. While 22.7% of the spouses of pregnant adolescents are unemployed, there are no unemployed spouses of non-adolescent pregnant women. The education level of spouses of non-adolescent pregnant women is higher. The rate of consanguineous marriage is higher in adolescent pregnant women. The rate of those who do not have social security is higher in adolescent pregnant women. 43.2% of pregnant adolescents and 4.2% of non-adolescents did not complete primary school. Prenatal care is higher in adolescent pregnant women. Adolescent pregnant women need information, guidance, help and support about pregnancy and childbirth. Pregnancy, which causes many difficulties in every period of a woman's life, affects the person physically and psychologically in a very negative way, especially if it is experienced in adolescence. A pregnancy and parenting program should be established for adolescent mothers and adolescent fathers, and they should be informed about education, employment, paternity skills and contraception.

## REFERENCES

1. [https://www.who.int/health-topics/adolescent-health#tab=tab\\_1](https://www.who.int/health-topics/adolescent-health#tab=tab_1). Accessed October 24, 2021.
2. Kawakita T, Wilson K, Grantz KL, et al. Adverse maternal and neonatal outcomes in adolescent pregnancy. *Journal of pediatric and adolescent gynecology*. 2016;29(2):130-136. doi:10.1016/j.jpag.2015.08.006.
3. Ganchimeg T, Ota E, Morisaki N, et al. WHO multicountry survey on maternal newborn health research network. Pregnancy and childbirth outcomes among adolescent mothers: World Health Organization multicountry study. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2014;121:40-48. doi:10.1111/1471-0528.12630.
4. Fleming N, Ng N, Osborne C, et al. Adolescent pregnancy outcomes in the province of Ontario: a cohort study. *Journal of Obstetrics and Gynaecology Canada*. 2013;35(3): 234-245. doi:10.1016/S1701-2163(15)30995-6.
5. Amjad S, MacDonald I, Chambers T, et al. Social determinants of health and adverse maternal and birth outcomes in adolescent pregnancies: a systematic review and meta-analysis. *Paediatric and perinatal epidemiology*, 2019;33(1):88-99. doi:10.1111/ppe.12529.
6. Westenberg L, van der Klis KA, Chan A, et al. Aboriginal teenage pregnancies compared with non-Aboriginal in South Australia 1995–1999. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 2002;42(2):187-192. doi:10.1111/j.0004-8666.2002.00187.x.
7. Zhang T, Wang H, Wang X, et al. The adverse maternal and perinatal outcomes of adolescent pregnancy: a cross sectional study in Hebei, China. *BMC pregnancy and childbirth*. 2020;20(1):339. doi:10.1186/s12884-020-03022-7.
8. <https://hasuder.org.tr/turkiye-nufus-ve-saglik-arastirmasi-2018-ne-soyloyor/>. Accessed October 22, 2021.
9. Altan SN, Akçam M. Communication skills and trait anxiety of nursing senior students. *Gümüşhane University Journal Of Health Sciences*. 2021;10(3):458-464. doi:10.37989/gumussagbil.786937.
10. Bulut S, Gürkan A, Sevil Ü. Adolescent Pregnancies. *Journal of Social Policy Studies*. 2008;13(13):37-44. doi:10.21560/spcd.76503.
11. Spielberger CD, Gorsuch RL, Lushene RE. *Manual for the state-trait anxiety inventory (self-evaluation questionnaire)*. Palo Alto: Consulting Psychologists Press 1970.
12. Gör Uslu, F. Evaluation of socio-demographic characteristics and birth outcomes of adolescent mothers. (Master's thesis, Adnan Menderes University Institute of Health Sciences) 2019.
13. Fulpagare PH, Saraswat A, Dinachandra K, et al. Antenatal care service utilization among adolescent pregnant women-evidence from swabhimaan programme in india. *Frontiers in public health*. 2019;7:369. doi:10.3389/fpubh.2019.00369.
14. Turan T, Ceylan SS, Teyikçi S. Influencing factors and situation of the mothers to take regular prenatal care. *Firat Health Services Journal*. 2008;3(9):157-172.
15. Öner S, Yapıcı G, Kurt AO, et al. The sociodemographic factors related with the adolescent pregnancy. *Asian Pacific Journal of Reproduction*. 2012;1(2):135-42. doi:10.1016/S2305-0500(13)60064-0.
16. Gönenc İ, Vural ZT, Yazıcıoğlu E. Pre-pregnancy care. *Sendrom*. 2000;12:65-73.
17. Yağmur Y, Medine MÇ. The effect of health education on women's birth preferences. *Ann Health Sci Res*. 2017;6(1):7-11.
18. Oğuz B. The determination of childbirth of self-efficacy adolescent pregnant and adult pregnant (Master's thesis, Manisa Celal Bayar University Health Sciences Institute) 2018.
19. Gotlib IH, Whiffen VE, Mount JH, et al. Prevalence rates and demographic characteristics associated with depression in pregnancy and the postpartum. *J Consult Clin Psychol* 1989;57(2):269-274. doi: 10.1037//0022-006x.57.2.269.
20. Llewellyn AM, Stowe ZN, Nemeroff CB. Depression during pregnancy and the puerperium. *J Clin Psychiatry*. 1997;58(15):26-32.
21. Akbaş E, Vırt O, Kalenderoğlu A, et al. Association Between Sociodemographic Variables with the Levels of Depression and Anxiety in Pregnancy. *Archives of Neuropsychiatry*. 2008;45(3):85-91.
22. Çakır L, Can H. The Relationship of Sociodemographic Variables with Anxiety and Depression Levels in Pregnancy. *The Journal of Turkish Family Physician*, 2012; 3(2): 35-42. doi: 10.15511/tjtfp.12.00235.