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Socio-Demographic, Pregnancy and Birth Characteristics of Adolescent Mothers/ *Adölesan Annelerin Sosyo-Demografik, Gebelik ve Doğum Özellikleri*

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Abstract:

Introduction: Adolescence is considered the transition period from childhood to adulthood. Pregnancy at an early age is encountered for various reasons, along with the sexuality that begins in this period. Having a child at an early age carries a high risk for both mother and baby.

Objective: This study was conducted to determine adolescent mothers' socio-demographic, pregnancy, and birth characteristics in Bartın province.

Method: The study was conducted as cross-sectional and descriptive. 89 adolescent women who gave birth between August and December 2008 in Bartın province constituted the population. Data were collected through a survey created by the researchers in line with the literature. SPSS 15.0 package program was used to evaluate the data. Mean and percentage were used in statistical evaluation.

Results: It was determined that 83% of the adolescent mothers, whose average age was 18, 3 ±0.73 years, were older adolescents, 15% had primary school education or lower, 98% were housewives and worked unpaid in family businesses, and 14% did not have any social security. While 54% of the mothers live in the nuclear family before marriage, 78% live in the extended family after marriage. It was observed that 52% of the adolescent mothers got married by escaping, and 87% had adolescent marriages. It was determined that most adolescent mothers did not receive any information about family planning methods before marriage and did not use pre-pregnancy family planning methods. It was observed that 65% of the adolescent mothers had health problems during their pregnancies, 21% of the babies born had health problems postpartum, 16% of the babies were prematüre, and 8.9% had low birth weight.

Conclusion: Adolescent mothers should receive family planning information and counseling to prevent adolescent pregnancies, an essential maternal and child health risk group. In primary care studies, it is thought that the risks to maternal and infant health will be reduced by planning appropriate reproductive health services for adolescents.

Keywords: adolescent, pregnancy, marriage, birth, risk factors.

Özet:

Giriş: Adölesan dönem, çocukluktan erişkinliğe geçiş dönemi olarak kabul edilir. Bu dönemde başlayan cinsellikle beraber çeşitli nedenlerden dolayı erken yaşta gebeliklere rastlanmaktadır. Erken yaşta çocuk sahibi olmak hem anne, hem de bebek için yüksek risk taşımaktadır.

Amaç: Bu araştırma Bartın İlinde yaşayan doğum yapmış adölesan annelerin sosyo-demografik, gebelik ve doğum özelliklerini belirlemek amacıyla yapılmıştır.

Yöntem: Araştırma kesitsel ve tanımlayıcı olarak yürütülmüştür. Bartın ili genelinde, 2008 yılı Ağustos –Aralık ayları arasında doğum yapan 89 adölesan kadın evreni oluşturmuştur. Veriler araştırmacılar tarafından literatür doğrultusunda oluşturulan anket aracılığıyla toplanmıştır. Verilerin değerlendirilmesinde SPSS 15.0 paket programı kullanılmıştır. İstatistiksel değerlendirmede ortalama ve yüzde kullanılmıştır.

Bulgular: Yaş ortalaması 18,3 ±0.73 yıl olan adölesan annelerin %83 ünün ileri yaş adölesan, %15 inin ilkokul ve altı öğrenim düzeyine sahip olduğu, % 98 inin ev hanımı ve aile işlerinde ücretsiz olarak çalıştığı, %14 ünün herhangi bir sosyal güvencesi olmadığı saptanmıştır. Annelerin evlilik öncesi %54 ü çekirdek ailede yaşıyorken, evlilik sonrası %78 i geniş ailede yaşamaktadır. Adölesan annelerin %52 sinin kaçarak evlendiği ve %87 sinin yakınlarının da adölesan evlilik yaptığı görülmüştür. Adölesan annelerin çoğunluğunun evlenmeden önce aile planlaması yöntemleri hakkında hiç bilgi almadığı ve gebelik öncesi aile planlaması yöntemi kullanmamış olduğu saptanmıştır. Adölesan annelerin %65 inin gebeliklerinde sağlık sorunu yaşadığı, doğan bebeklerin %21 inde doğumdan sonraki dönemde sağlık problemi olduğu ve bebeklerin %16 sının prematür, %8.9 unun düşük doğum ağırlıklı olduğu görülmüştür.

Sonuç: Anne ve çocuk sağlığı açısından önemli bir risk grubunu oluşturan adölesan gebelikleri önlemek için adölesan kadınların aile planlaması bilgisi ve danışmanlığı almaları gerekmektedir. Birinci basamak çalışmalarında adölesanlara yönelik uygun üreme sağlığı hizmeti planlamasının yapılmasıyla anne ve bebek sağlığına yönelik risklerin azaltılacağı düşünülmektedir.

Anahtar kelimeler: adölesan, gebelik, evlilik, doğum, risk faktörleri.

1. Introduction

Adolescence is considered the transition period from childhood to adulthood, and in this period, the child reaches physical, psychological, and social maturity (Köseoğlu Aydenk and Çeleci Tayfur, 2017). In this period, physical development takes place before psychological and social maturation. Sexual life begins with the adolescent's self-discovery and development of sexual personality and roles (Özcebe, 2002).

The issue of child marriages and pregnancies is a global problem rather than a local one (Çelebi and Piyal, 2022; Ergöçmen et al., 2020). Worldwide, one in five girls gives birth by the age of 18. This figure rises to over one in three girls in the world's poorest regions. Globally, the adolescent birth rate has fallen over the years. It decreased from 64.5 births per 1000 women (15-19 years) in 2000 to 41.3 births per 1000 women in 2023. However, there are inequalities in the rates of change between regions. There are also significant differences in levels between and within countries. The estimated adolescent birth rate in the WHO African Region is 97 per 1000 adolescent girls in 2022, compared to 13.1 per 1000 adolescent girls in the European Region (WHO, 2023). According to the 2021 data from the Turkish Family Structure Survey conducted by the Turkish Statistical Institute, the age of first marriage of 24.2 percent of women in our country are under the age of 18 (Turkey Family Structure Research, 2021). According to Turkey Demographic and Health Survey (TDHS) 2018 data, it is seen that 4% of women in the 15-19 age group have started fertility behavior. Three percent of these women have a live birth, and 1 percent are pregnant with their first child at the time of the survey. The percentage of women who start to have children during adolescence shows regional differences; This rate, which was 2% in the West, was 7% in the South (TDHS, 2018). This situation constitutes a critical health problem in our country, like others. As in the whole world, the causes and consequences of adolescent pregnancies are considered necessary in our country, and studies on this subject are increasing.

Pregnancy at an early age is encountered for various reasons, along with the sexuality that begins in this period. Traditional structure, family structure, low level of education of the adolescent and his family, low socio-economic status, transportation difficulties, insufficient information on sexual/reproductive health by school and family, insufficient information about family planning methods, and inability to access services factors such as affect the frequency of adolescent pregnancy (Şolt & Yazıcı, 2015). Again, in some societies, early marriages and adolescent pregnancies are encountered by families to prevent their daughters from having sexual intercourse outside of marriage (Boran et al., 2013).

Pregnancy at an early age carries significant risks for the health of both mothers and babies (Ergöçmen et al., 2020). Those who are pregnant during adolescence cannot reach health services adequately, and they cannot benefit from prenatal care, healthy birth, and postnatal care services sufficiently. It is observed that the rate of birth and postpartum complications is high in adolescents due to the lack of antenatal care and poor preparation for birth and parenthood. Compared to women aged 20-23, it is seen that the risk of maternal mortality and morbidity is higher in women aged 15-19 (Barut, 2018; Doğa Seçkin et al., 2016). In adolescent pregnancy and childbirth, In addition to obstetric problems such as preeclampsia, anemia, infection, insufficient weight gain, premature rupture of membranes, malpresentation, prolonged delivery,

fetal problems such as congenital malformation, premature birth, intrauterine growth retardation and low birth weight increase, postpartum breastfeeding problems, infection and the healthy development of the newborn are affected, and negative changes are observed in the physical and mental health of the mother (Ganchimeg et al., 2014; Gör Uslu & Çoban, 2020; Kut A et al., 2016; Maheshwari et al., 2022).
Adolescent pregnancies are still an essential problem in our country. Although the number of studies on this issue is increasing, it is essential to conduct more studies to see the problem's results and provide guidance for its solution. This study was conducted to determine the socio-demographic, pregnancy, and delivery characteristics of adolescent mothers who gave birth in Bartın Province.

2. Material and Method

2.1. Type of Research

The study was cross-sectional and descriptive.

2.2. Population and Sample of the Research

According to Bartın Health Directorate data, 2231 women gave birth in 2007, and 207 (9%) were given to adolescent mothers aged 19 and under. As of September 2008, out of a total of 1059 pregnant women, 114 pregnant women were adolescents between the ages of 15-19 (11%). 89 adolescent mothers living in Bartın who gave birth between August and December 2008 constituted the universe. It is aimed at reaching the whole population.

2.3. Data Collection Method in Research

The data of the study was collected by applying a survey of adolescent mothers through face-to-face interviews between April and May 2009, approximately six months after the birth date of their babies. The data were collected by health professionals working in family health centers where 89 adolescent mothers were registered throughout Bartın province.

The data were collected through the "Socio-Demographic, Pregnancy, and Birth Characteristics of Adolescent Mothers Survey Form," which was created by the researchers in line with the literature (Özcece, 2002; Demirgöz and Canbulat, 2008; Başer, 2000; Gökçe et al., 2007; İmir et al., 2007; Yücel, 2003; Tezcan, 2003). The form consists of 58 questions asking adolescent mothers about their socio-demographic characteristics (age, place of birth, place of residence, education level, job, social security, marital status, consanguineous marriage, spouse's age, education level, spouse's job, income level, number of spouses, people living at home and their own families, etc.), fertility, prenatal care, and birth-related information.

2.4. Evaluation of Data:

The SPSS 15.0 package program was used in data analysis, and percentage distributions were obtained.

2.5. Ethical Approval

The article contains data from a cross-sectional descriptive study planned before October 2013. In line with ISAJE and COPE guidelines, ethics committee approval was not obtained at the time the study was planned. All women were informed about the purpose and procedure of the study. consent was obtained from women over the age of 18 who volunteered to participate in the research and from their legal representatives for those under the age of 18. In addition, women were informed that they could leave the study anytime.

3. Findings

It was determined that 74 (83.1%) of the mothers who were adolescents during their pregnancies in 2008 were advanced-age adolescents, and the average age of all adolescent mothers was 18. When the educational status was examined, It was determined that 3.4% were illiterate, 11.4% were primary school graduates, 73.9% were secondary school graduates, and 11.4% were high school graduates. While 97.8% of adolescent mothers work unpaid as housewives and in family affairs, only 2.2% work in an income-generating job. Looking at the spouses of the adolescents, It was determined that 4.5% were under the age of 20, and 44.9% were in the 20-24 age group. When the educational status of the spouses is examined, It was determined that 30.3% of them had primary school education, and 66.3% had secondary school or higher education. When the spouses' occupations were examined, 19.1% were not working in any job. It was determined that 56.2% of them worked regular jobs with social security, and 16.9% worked irregular jobs without social security. Considering the social security status, 13.5% had no social security. It was observed that 93.3% of the adolescent mothers were legally married, 6.7% were living without a civil marriage, and close consanguineous marriages with their spouses were not detected (Table 1).

When we look at the place of birth of the mothers, it was determined that 88.8% of them were born in Bartın province, and 69.7% of them were born in rural areas. When we look at the region where adolescent mothers lived until the age of 12, it was determined that 85.4% of them lived in Bartın Province, and 75.3% of them lived in rural areas until the age of 12 (Table 1).

When their thoughts on their economic situation were examined, it was determined that 88.7% of them evaluated the economic status of their families before marriage as medium and above, and 85% of them evaluated the economic status of their current families as medium and above. While 53.9% of adolescent mothers live in a nuclear family before marriage, 77.5% live in an extended family after marriage. When the educational status of the parents of adolescent mothers is examined, 40.3% of the mothers never went to school, 57% were primary school graduates, and 3.3% were secondary school or higher school graduates. It was determined that 12.3% of the fathers never went to school, 70.8% were primary school graduates, and 16.8% were secondary school or higher education graduates.

It was determined that 65.2% of adolescent mothers were married under 18. However, it was determined

that 62.4% of these mothers wanted to get married between 20-24. It was observed that 74.2% of the adolescent mothers evaluated the age at which they got married as early. It was observed that 61.8% of the families of adolescent mothers evaluated it as early, and 59.1% of the people living around them as early. It was determined that 66.3% of the adolescent mothers got married because they loved their spouses, 16.9% of them got married to get rid of the problems in the family, and 11.2% of them got married with the desire of the family.

It was observed that 75.3% of mothers who married early were satisfied with their marriage. When the reasons for satisfaction are examined, It has been observed that 43.8% of them are satisfied because they love their spouse, 33.3% have children, and 35.4% are happy because they do not have any problems. It was observed that 36.4% of the dissatisfied people thought they got married early, 18.2% were not satisfied due to financial difficulties, and 9.1% were not satisfied due to conflict in the family.

It was observed that 51.7% of adolescent mothers got married by running away, and 29.2% got married by making friends. When the reasons for the marriage of those who run away are examined, 43.5% of them stated that they got married in this way because their families were against their marriage, 28.3% because they loved it, and 15.2% were getting rid of their family pressure. Early marriage was found in the relatives of 86.5% of adolescent mothers. The presence of early marriage was determined in the mothers of 41.6% of the adolescent mothers and the sisters of 23.6%. It was observed that 55.6% of the sisters who got married early became friends, and 27.8% got married by running away. It was observed that relatives of adolescent mothers who married at an early age married at the age of 16-18 on average.

The average age of menarche of adolescent mothers is 13.35, and the average age of marriage is 17.12. The first gestational age was found to be 17.51. It was observed that they married an average of 3.5 years after menarche and became pregnant within the first year of marriage. It was seen that 26.1% of the adolescent mothers were below the mean age at menarche. Considering the first gestational age, It was determined that 46.1% of them were pregnant under the age of 18.

Table 1. Sociodemographic characteristics of the adolescent mothers included in the study

Characteristics	N	%
Age (n=89)		
16-17	15	16.9
18-19	74	83.1
Education (n=88)		
Illiterate	3	3.4
Primary school	10	11.4
Secondary school	65	73.9
High school	10	11.4
Job (n=89)		
Work unpaid in family affairs and housewives	87	97.8
Employee	2	2.2

Table 1. (cont.) Sociodemographic characteristics of the adolescent mothers included in the study

Characteristics	N	%
Husband's age (n=89)		
18-19	4	4.5
20-24	40	44.9
25-29	38	42.7
30-34	4	4.5
35-37	3	3.4
Husband's education (n=89)		
Illiterate	1	1.1
Primary school	27	30.3
Secondary school	37	41.6
High school	22	24.7
University	2	2.2
Husband's job (n=89)		
Worked regular jobs	45	56.2
Working in any job	17	19.1
Worked irregular jobs without social security	15	16.9
In the military	7	7.9
Small business	4	4.5
Officer	1	1.1
Consanguineous marriage (n=89)		
No	88	98.9
Yes (not first degree)	1	1.1
Marriage status (n=89)		
Legally married	83	93.3
Unmarried	6	6.7
Social security (n=89)		
No	12	13.5
Yes	77	86.5
City of birth (n=89)		
Bartın	79	88.8
Other	10	11.2
Characteristics of the region of birth (n=89)		
Rural	62	69.7
City	27	30.3
Province lived until age 12 (n=89)		
Bartın	76	85.4
Other	13	14.6
Characteristics of the region where one lives (n=89)		
Rural	67	75.3
City	22	24.7
Economic situation after marriage (n=87)		
Very good	8	9.2
Good	31	35.6
Middle	35	40.2
Bad	10	11.5
Too bad	3	3.4
Economic situation before marriage (n=89)		
Very good	5	5.6
Good	48	53.9
Middle	26	29.2
Bad	9	10.1
Too bad	1	1.1
Family type after marriage (n=89)		
Nuclear family	20	22.5
Extended family	69	77.5

Table 1. (cont.) Sociodemographic characteristics of the adolescent mothers included in the study

Characteristics	N	%
Family type before marriage (n=89)		
Nuclear family	48	53.9
Extended family	41	46.1

It was determined that 58.4% of adolescent mothers received no information about family planning methods before marriage, and 78.7% did not use them before pregnancy. It was observed that 82.0% of them used the postpartum family planning method, and 76.7% used the effective family planning method. It was determined that before marriage, adolescents received information about family planning methods mostly from school (48.6%), written and visual media (35.1%), and friends (32.4%). It was observed that only five people received information from health professionals. Considering the use of methods before and after pregnancy in 2008, It was seen that before pregnancy, the condom was in first place at 57.9%, and the withdrawal method was in second place at 26.3%. Notably, after delivery, the condom is again in first place with 54.8%, and withdrawal is in second place with 23.3% (Table 2).

Table 2. Adolescent mothers' knowledge about family planning methods before marriage and their use of methods after marriage

Characteristics	N	%
State of knowledge before marriage (n=89)		
Yes	37	41.6
No	52	58.4
Information source (n=37)		
School	18	48.6
Press	13	35.1
Friend	12	32.4
Family	6	16.2
Health professionals	5	13.5
Internet	3	8.1
Use of family planning method before pregnancy (n=89)		
Not used	70	78.7
Used	19	21.3
The method he used (n=19)		
Condom	11	57.9
Coitus İnterruptus	5	26.3
Oral Kontraseptif	3	15.8
Use of postpartum family planning method (n=89)		
Uses	73	82.0
Not using	16	18.0
The method he used (n=73)		
Condom	40	54.8
Coitus İnterruptus	17	23.3
IUD (İntra Uterine Device)	8	11.0
Injection	5	6.8
Oral Kontraseptif	2	2.7
Tubligation	1	1.4
Method users (n=73)		
Effective method	56	76.7
İneffective method	17	23.3

It was observed that 82.0% of the adolescent mothers included in the study had their first pregnancy, and 88.8% had a live birth. It was seen that 5.6% of adolescent mothers had abortions, and 2.2% had abortions intentionally. It was observed that 2 (2.2%) of the mothers who gave birth lost their baby on the 1st and 5th days due to perinatal asphyxia. When the birth intervals of adolescent mothers were examined, It was determined that 50.0% of those with a second birth gave birth before two years, and all of those with a third birth gave birth again 12 months after the second birth. The ratio of adolescent mothers who decided their first pregnancies by themselves and their spouses was 80.9% and 78.7%, respectively. It was seen that 50.0% of the 16 adolescent mothers who became pregnant for the second time were planned at the request of themselves and 66.7% of them at the request of their spouses. It was determined that 33.3% of the four adolescent mothers who became pregnant for the third time were due to family wishes, and 66.7% were unplanned pregnancies. It was observed that 98.9% of the mothers who gave their first birth received prenatal care, and 100% of the mothers who gave their second and third births received prenatal care. It was determined that the mothers received the most prenatal care from the primary health care institution in the first pregnancy (92.0%), the second pregnancy (85.7%), and the third pregnancy (100%) (Table 3).

Table 3. Prenatal care status of adolescent mothers

Characteristics	First pregnancy		Second pregnancy		Third pregnancy	
	N	%	N	%	N	**%**
Status of receiving prenatal care (n=89)						
Never received	1	1.1	-	-	-	-
1-4 times	20	22.5	2	14.3	-	-
5 and more	68	76.4	12	85.7	3	100.0
The institution receiving care (n=88)*						
Family Health Center	81	92.0	12	85.7	3	100.0
Hospital	76	86.4	10	71.4	3	100.0
Private hospital	31	35.2	5	35.7	-	

Only 9.0% of adolescent mothers had a chronic disease. 65.2% of adolescent mothers had health problems during their pregnancies. It was determined that 93.2% of those with health problems experienced this problem in their first pregnancy. Urinary tract infection (58.6%), hyperemesis (56.9%), risk of premature birth (25.9%), edema (19.0), and preterm premature rupture of membranes (12.1%) were the most common health problems in the pregnancies of adolescents participating in the study. The health problems of 72.4% of those who had health problems were intervened (Table 4).

Table 4. Adolescent mothers' health problems during pregnancy

Characteristics	**N**	%
The state of having health problems during pregnancy (n=89)		
Had a problem	58	65.2
No problems	31	34.8
Order of pregnancy with health problems (n=58)*		

In the first pregnancy	54	93,1
In the second pregnancy	6	10,3

Table 4. (cont.) Adolescent mothers' health problems during pregnancy

Characteristics	N	%
Health problems during pregnancy (n=58)**		
Urinary tract infection	34	58,6
Hyperemesis	33	56,9
Risk of premature birth	15	25,9
Edema	11	19,0
Preterm prematüre rupture of membranes	7	12,1
Amniotic fluid anomaly	5	8,6
Vaginal bleeding	3	5,2
Hypertension	2	3,4
Other	2	3,4
Intervention status for health problem (n=58)		
Intervened	42	72.4
Untreated	16	27.6
Interventions for health problems (n=42)**		
Medication	24	57.1
Hospitalization	16	38.1
Other	3	7.1

Of the adolescent mothers who had their first birth, 15.7% had it before completing the 37th week of pregnancy. It was observed that all of those who had their second and third births gave birth after 37 weeks of pregnancy. It was determined that the method of birth in 71.9% of first births, 70.0% of second births, and 50.0% of third births was vaginal birth. It was determined that 46.1% of the adolescent mothers had problems in their first birth and that the adolescent mothers who had problems at birth had the most premature births (15.7%), prolonged labor pain (14.6%), difficult birth (5.6%), cord entanglement (3.4%). (Table 5).

During pregnancy, 6.7% of adolescent mothers had health problems in their babies. The identified health problems were growth retardation (33.2%), Down syndrome (16.7%), cleft palate and lip (16.7%), hole in the heart (16.7%), and low birth weight (16.7%). It was observed that problems were detected in the first pregnancies of mothers whose babies were found to have health problems. Health problems were detected in 21.0% of babies born postnatal. The most common health problems were jaundice (26.3%), respiratory distress (26.3%), ear and hearing anomalies (10.5%), and death due to perinatal asphyxia (10.5%). 94.7% of these problems were seen in the first postnatal baby. 91.1% of infants at first births were born at normal birth weight, and 8.9% had low birth weight.

Table 5. Characteristics of the births of adolescent mother

	First birth		Second birth		Third birth	
Characteristics	**N**	**%**	**N**	**%**	**N**	**%**
Birth week (n=89)						
Under 37 weeks	14	15.7	-	0.0	-	0.0
37 weeks and above	75	84.3	10	100.0	2	100.0
Where the births took place (n=89)						
At hospital	89	100.0	10	100.0	2	100.0

The way of birth (n=89)						
Vaginal birth	64	71.9	7	70.0	1	50.0

Table 5. (cont.) Characteristics of the births of adolescent mother

Characteristics	First birth		Second birth		Third birth	
	N	%	N	%	N	%
Cesarean section	25	28.1	3	30.0	1	50.0
Problem occurrence at birth (n=89)						
No problem	48	53.9	10	100.0	2	100.0
Problem occurred	41	46.1	-		-	
Problems occurring at birth (n= 41)						
Premature birth	14	15.7	-		-	
Prolonged labor pains	13	14.6	-		-	
Difficult birth	5	5.6	-		-	
Cord entanglement	3	3.4	-		-	
Breech arrival	2	2.2	-		-	
Fetal stress	2	2.2	-		-	
Other	5	5.6	-		-	

It was determined that 96.6% of the mothers who gave birth to their first newborn fed their babies with breast milk after birth, and 73.6% started feeding within the first hour. It was determined that all mothers who gave birth to their second and third babies fed their babies with breast milk after birth. It was observed that 87.5% of the mothers who gave birth to their second baby and all of the mothers who gave birth to their third baby started feeding within the first hour. Two babies (2.2%) could not receive breast milk because they died in the incubator. It was observed that adolescent mothers took care of their babies themselves (88.5%), family members (49.4%), and their spouses (26.4%).

64.8% of adolescent mothers plan to become pregnant again in the future. It was observed that 71.3% of the mothers wanted to have two children. It was determined that the mothers wanted a future pregnancy because they wanted a sibling for their child (72.1%), their spouse wanted one (14.0%), and a child of the other sex. For mothers who do not plan to conceive in the future, It was observed that they did not think of having enough children (56.5%), difficulties in caring for the baby and economic reasons (26.1%), difficulty in pregnancy and delivery (8.7), and a small (8.7) baby.

4. Discussion

The average age of the adolescent mothers in this study is 18. It was determined that most adolescents and their spouses were at secondary school and above education level, and their parents were at a lower education level than themselves. In this study, most adolescent mothers were born in the rural area of Bartın province and lived in the same province and rural area before marriage. According to TDHS 2018 data, women living in rural areas start getting pregnant at an earlier age than women living in urban areas. Despite the passage of time, this situation continues in the 2018 data. Our research data are similar to the data of Türkiye. Most adolescent mothers are housewives, 19.1% of their spouses are unemployed, and 13.5% do not have social security. It has been determined that most household income is above the

minimum wage, and the per capita income of the family where 59.6% live is above the average per capita income. Similar findings were obtained in a study by Gör Uslu and Çoban (2020). It was determined that the average age of the adolescent mothers was 18 years; 59.9% were secondary school graduates, and 98.1% were housewives. The same study determined that 71.0% of the mothers perceived their income as less than their expenses, and 61.4% had social security from SSI. It has been determined that 55.6% of the spouses of adolescent mothers are secondary school graduates, 54.1% are workers, and 1.4% are not working, similar to our study (Gör Uslu & Çoban, 2020). Notably, most adolescent mothers have a secondary school or higher education level, and the illiteracy rate is low. It is seen that the working status of the women in our study is similar to the working rates of the women in the other study. It is thought that adolescent pregnancies that occur after adolescent marriages negatively affect women's participation in working life.

The majority of marriages are civil marriages, and 77.5% of them live in extended families. They generally escaped voluntarily and married early, and most were satisfied with the marriage. In this study, it was observed that the family and environment of the adolescent mothers evaluated the marriage age as early. However, it is noteworthy that 86.5% of adolescent mothers also married at an early age. It has been observed that it is common for relatives of adolescents to run away and marry. According to the data from the Turkish Statistical Institute, In our country, 5.3% of marriages occur through elopement/kidnapping (Turkey Family Structure Research, 2021). In a study conducted by Alptekin (2022) in Trabzon province, it was reported that elopement marriage occurred most at the age of 17-18 and that elopement marriage continued to be expected for three generations. The fact that other women in the family, as role models, do not attach importance to education and marry at a young age and run away paves the way for young girls to marry at an early age. It is thought that adolescents are affected by this behavior in their immediate environment and the society they live in. It is thought that this type of marriage also causes teenage pregnancy.

Adolescents got married at an average age of 17.12, an average of 3.5 years after menarche, and became pregnant within the first year of marriage. In our study, it was determined that the majority of adolescent mothers (58%) did not receive any information about family planning methods before marriage, and (79%) did not use family planning methods before pregnancy. Although adolescent mothers did not use family planning methods before pregnancy, it was determined that 82% of them used postpartum family planning methods. It has been observed that 77% of women using family planning methods also use modern family planning methods. A study conducted in Aydın province reported that 86% of adolescent mothers did not use any method (Gör Uslu & Çoban, 2020). A study conducted in Izmir observed that 84% of pregnant adolescents did not receive information about family planning methods before marriage and 63% after marriage (Topuzoğlu & Çalı, 2002). Similar to other studies, the adolescent mothers in our study have insufficient knowledge about family planning before marriage and their use of family planning before pregnancy. However, it has been observed that the use of family planning and the choice of modern methods increase after birth. It is observed that pre-pregnancy family planning services are not used to

prevent adolescent pregnancies and these services are mainly received after birth.

It was the first pregnancy of 82%, the second pregnancy of 14%, and the third pregnancy of 5% of the adolescent mothers included in the study. It was the first pregnancy of most adolescent mothers in the study, and the rate of those who plan to become pregnant again was 65%. The number of children most of them want to have is two. Most of the first pregnancies were realized by the adolescent's will; Half of the second and third pregnancies occurred against their will. According to TDHS 2003 data, the shortest median birth interval is 23 months for women in the 15-19 age group. In the study conducted in Aydın, the average time between the previous and current pregnancies is six months (Gör Uslu & Çoban, 2020). In this study, the birth interval of 50% of the adolescent mothers was below 23 months. The short birth intervals of adolescent mothers may be due to the inadequacy of adolescent mothers' knowledge about reproductive health. Additionally, short birth intervals indicate an unmet need for family planning (Arslan et al., 2020).

It is emphasized in the literature that there is a strong relationship between complications that may occur in adolescent pregnant women and inadequate antenatal care. (Demirgöz and Canbulat, 2008). According to TDHS 2018 data, the rate of pregnancies in the 15-19 age group who did not receive any prenatal care is 5.9%. A study conducted in Aydın province reported that 95.2% of adolescent mothers received prenatal care (Gör Uslu & Çoban, 2020). The study conducted by Baş et al. (2020) reported that 69.7% of adolescent mothers lack regular prenatal care. In a study conducted by Yıldırım et al. (2005) around the time of our research, it was determined that 77% of adolescent mothers did not receive prenatal care. In this study, almost all (99%) of the adolescent mothers received prenatal care and they mostly preferred the primary health care institution as an institution. In our study, the situation of adolescent mothers not receiving prenatal care; It was higher than the Türkiye and region average and the rate found in other studies. This situation is thought to be due to the fact that the province where the employee is employed is small and healthcare personnel can easily reach people in the registered population.

It was determined that 65.2% of adolescent mothers had health problems during their pregnancies and 46% at birth. Urinary tract infection (58.6%), hyperemesis (56.9%), risk of premature birth (25.9%), edema (19.0), and preterm premature rupture of membranes (12.1%) were the most common health problems of adolescents who had problems during their pregnancy. The health problem of 72.4% of those with health problems was intervened. A study conducted in Aydın reported that 6% of adolescent mothers experienced complications at birth (Gör Uslu and Çoban, 2020). In a study conducted in Istanbul, it was reported that 29.3% of adolescent mothers experienced complications at birth (Doğa Seçkin et al., 2016). In this study, the state of having health problems was higher than the rate found in other studies.

Examining the problems experienced by the adolescent mothers during childbirth in this study, It was determined that 46.1% of them had problems, and these problems were experienced in the first pregnancy. Among the 41 adolescent mothers who were found to have problems at birth, the most problems were found to be premature birth (15.7%), prolonged labor pain (14.6%), difficult birth (5.6%), and cord

entanglement (3.4%). A study in Istanbul determined that 61.1% of adolescent pregnant women experienced problems such as prolonged delivery, and 38.9% did not. It has been determined that 56% of women in Turkey experience problems such as bleeding at birth, long-term pain, and vaginal infection (Karakaya, 2004). Compared to other studies, fewer problems were identified in this study.

All pregnancies of adolescent mothers were in the hospital environment, and 29% of all deliveries were by cesarean section. In a study conducted in Batman province, it was determined that 39% of adolescent mothers gave birth by cesarean section in a study conducted in Aydın province (Şirin, 2016; Gör Uslu and Çoban, 2020). In a study conducted by Çakır et al. (2021), the rate of cesarean section was reported as 38% (Çakır et al. 2021). A study in Istanbul determined that 18% of adolescent mothers gave birth by cesarean section, unlike our study findings (Doğa Seçkin et al., 2016). According to the TDHS 2018 results, The birth rate by cesarean section in adolescents under 20 is 33%. As in all age groups, the rate of cesarean section in adolescent mothers is above the rate recommended by WHO, and it is seen that it has increased over the years. According to TDHS 2018 data, 99% of births in Turkey occurred in a health institution, and 97.9% of adolescent births occurred in a health institution. This study determined that the birth rate in the health institution was higher than the Türkiye average.

In this study, health problems were determined in the babies of 6.7% of the adolescent mothers during the pregnancy period and in the babies of 21.0% in the postnatal period. The pregnancies of two of the adolescent mothers resulted in perinatal death. The perinatal death rate was found to be 22. Malabarey et al. reported that neonatal mortality was significantly higher in pregnancies under 15 (Malabrey et al., 2012).

It was determined that 16% of the adolescent mothers had preterm babies, and 9% had low birth weight babies. In many studies conducted in our country, the rate of preterm birth and low birth weight infant delivery were found to be significantly higher in adolescent mothers (Barut et al., 2018; Kırbaş et al., 2016; Çakır et al., 2021). Our data were also found to be compatible with the literature. In the literature, it is stated that as the mother's age decreases, the body does not fully develop and the nutritional deprivation between the fetus and the adolescent mother; It is emphasized that it causes the newborn to be born with low birth weight and the risk of premature birth (Rexhepi et al., 2019).

It was determined that almost all mothers gave their babies their first breast milk, and most started breastfeeding within the first hour. In the study of Gör Uslu and Çoban, it was reported that the majority of adolescent mothers started breastfeeding within the first hour (Gör Uslu and Çoban, 2020). The breastfeeding situations in our study are similar to Gör Uslu and Çoban's study results. It was determined that 49% of adolescent mothers received help from family members to care for their children.

5. Conclusion and Recommendations

Although it is said to have decreased compared to previous years, it is still seen as an important problem

for women's health.

In this context;

- Adolescents should be informed about sexual/reproductive health.
    - A free telephone advice line can be set up that adolescents can access, a website that they can access easily can be created, and counseling services can be offered via the internet. A team consisting of obstetricians, urologists, psychologists, midwife-nurse, dietitians, and social work specialists can be formed to meet the applications. In order to promote the program, the project can be promoted in all schools, public and private institutions by hanging posters, distributing brochures, and in the written and visual media. Applicant parents can also be provided with consultancy services on adolescent health, growth and development, possible problems, and solutions.
    - Youth clinics that work through peer education can be established by forming teams of young volunteers. Apart from the clinic, mobile teams can be established for educational purposes, and services can be provided to hard-to-reach groups.
- Adolescents' access to services in health institutions should be ensured.
    - Adolescent health and counseling services should be integrated into the services of primary healthcare institutions.
    - Adolescents should be included in risky groups (such as pregnant, puerperal, infant, and child) that should be followed in primary healthcare institutions. Training and consultancy services should be provided according to their needs.
    - External access should be provided to hard-to-reach groups by making home visits. Thus, his family and the environment he lives in will watch him as a whole.
    - Adolescent clinics should be opened in hospital services together with the integration into primary care, and it should be ensured that the purpose carries out the second step of the follow-up.
- In order to prevent adolescent pregnancy, public awareness should be raised through intersectoral cooperation to prevent the early marriage of girls.
- Family planning counseling should be provided to prevent adolescent pregnancy as a result of adolescent sex.
- Society should be aware of adolescent pregnancies' risks to maternal and child health.

- Training programs can be organized for the public by ensuring public participation through inter-sectoral cooperation,
- Messages can be conveyed through the press in the form of public statements.

- In order to reduce complications related to adolescent pregnancy, pregnant women should be followed up with high-risk pregnancies, and good antenatal care should be given.

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