

RATE OF CONSANGUINEOUS MARRIAGE, CAUSES, EFFECTS ON WOMEN'S AND CHILDREN'S HEALTH

AKRABA EVLİLİĞİNİN ORANI, NEDENLERİ, KADIN VE ÇOCUK SAĞLIĞINA ETKİLERİ

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ABSTRACT

Objective: With this study, it was aimed to investigate the rate of consanguineous marriage, causes and effects on women's and children's health.

Methods: 508 women were reached through social media on the digital platform that met the inclusion criteria of the research. The analyzes of the research were made using the SPSS 24 program and the statistical significance level was evaluated as $p < 0.05$.

Results: It was found that of women, 21.9% consanguineous marriage, 14% cousin marriage, It was found that the rate of infant death, stillbirth, miscarriage, number of pregnancy and having a health problem in their child was higher in women who had consanguineous marriages. It was determined that the participants' children had nearly 35 different permanent/chronic diseases. Additionally, 64% of women stated that they did not decide on consanguineous marriage. 3% of consanguineous women stated that they had a stillbirth and 2.4% of their children died between 0-12 months.

Conclusion: It can be said that almost one out of five women is consanguineous, half of the women who have consanguineous marriages are decided by their families, and they have negative effects on their health in consanguineous women and their children.

Keywords: Consanguineous marriage, Reasons of consanguineous marriage, Women and children health

ÖZET

Amaç: Bu çalışma ile akraba evliliklerinin oranı, nedenleri ve kadın ve çocuk sağlığına etkilerinin araştırılması amaçlandı.

Gereç ve Yöntem: Araştırmaya dâhil edilme kriterlerini karşılayan dijital platformda sosyal medya üzerinden 508 kadına ulaşıldı. Araştırmanın analizleri SPSS 24 programı kullanılarak yapılmış olup istatistiksel anlamlılık düzeyi $p < 0,05$ olarak değerlendirilmiştir.

Bulgular: Kadınların %21,9'unun akraba evliliği, %14'ünün kuzen evliliği olduğu, bebek ölümü, ölü doğum, düşük, gebelik sayısı ve çocuğunda sağlık sorunu yaşama oranının, hamile olan kadınlarda akraba evliliklerinde daha fazla olduğu belirlendi. Katılımcıların çocuklarında 35'e yakın birbirinden farklı kalıcı/kronik hastalık olduğu tespit edildi. Ayrıca kadınların %64'ü akraba evliliğine kendisini karar vermediğini belirtti. Akraba evliliği yapan kadınların %3'ü ölü doğum yaptığını ve %2.4'ünün çocuğunun 0-12 aylar arasında öldüğünü belirtti.

Sonuç: Neredeyse her beş kadından birinin akraba evliliği yaptığı, akraba evliliği yapan kadınların yarısının aileleri tarafından kararlaştırıldığı, akraba evliliği yapan kadınların ve çocuklarının sağlıklarını olumsuz etkilediği söylenebilir.

Anahtar Kelimeler: Akraba evliliği, akraba evliliği nedenleri, kadın ve çocuk sağlığı.

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INTRODUCTION

Marriage between individuals from a common ancestor is called consanguineous marriage. Consanguineous marriage is studied at two levels; Marriages made by couples whose parents are siblings are called first degree consanguineous marriages (cousin marriages), and marriages made by couples whose grandparents are siblings are called second degree consanguineous marriages (Sevinç and Yavaş Çelik, 2016a). It is known that the countries with the highest rate of consanguineous marriages in the world are in the Middle East geography (Hamamy, 2012). Our country is also located in this geography, this rate has been determined as 24% in our country and it is reported that the rate of consanguineous marriages in our country is quite high in studies (Mayda et al., 2010; Çaha and Altınkoz, 2021; Sevinç and Yavaş Çelik, 2016b; TPHS, 2018). According to the regions in our country, the rate of consanguineous marriage is given as 43% in the Southeastern Anatolia region, 32% in the Mediterranean region, and 25% in the Central Anatolia region, respectively (TPHS, 2018). In addition, it is reported that consanguineous marriage is common in people who marry at a young age and have a low education level in our country (Boran et al., 2013; Erdem et al., 2018; Dayıoğlu et al., 2019; Goundali et al., 2022).

Consanguineous marriage plays a major role in the formation of recessive hereditary diseases and congenital defects in society. It is also the biggest factor in the occurrence of conditions such as infertility, stillbirth, spontaneous abortions, child deaths, infant deaths, congenital malformations (Sevinç and Yavaş Çelik, 2016a). In a research conducted; It was determined that 14.3% of the women who had consanguineous marriages knew that their children had congenital anomalies before they were born. In the same study, mental retardation and psychiatric disorders, congenital defects, structural anomalies and metabolic diseases were found in families with consanguineous marriages. In addition, it was determined that 63% of the women participating in the study had abortion and 64.7% had stillbirth (Dayıoğlu et al., 2019). In another study, it was found that the total number of pregnancies, the number of live births, infant deaths and post-newborn infant deaths were higher in women who had consanguineous marriages. In addition, in this study, it was determined that the number of children with congenital diseases and later disabilities was higher in women with consanguineous marriages (İnanlı et al., 2016). According to these data, it can be said that consanguineous marriages affect the health of women and children negatively and these marriages are quite common in our country. For this reason, it is very important to investigate the reasons for consanguineous marriages in our country and their effects on women's and children's health. With this study, it was aimed to investigate the rate of consanguineous marriage, causes and effects on women's and children's health.

MATERIALS AND METHODS

Type of Study

It is a descriptive study

Place and Time of Study

The research was applied to the participants in the social media environment in three regions of our country (Mediterranean, Southeastern Anatolia and Central Anatolia) between 03.06-2020-20.04.2022.

The Population and Sample of the Study

While the population of the research consisted of all married women and children, the sample consisted of all mothers who volunteered to participate in the research that could be accessed via social media. A total of 688 participants were reached, but those women who did not volunteer to participate in the study (82), did not fill out the questionnaire completely (17), could not use social media (27) and were illiterate (47) were excluded from the study. The research was concluded with 508 participants.

Inclusion criteria in the study

- be married
- be woman
- having children
- be able to use social media
- be able to read and write
- living in Southeast Anatolia, Mediterranean, Central Anatolia
- volunteering to participate in research

Exclusion criteria from the study

- not to be married
- not having children
- be man
- not using social media or owning a vehicle that uses social media
- illiteracy
- death of first degree relative (mother, child, spouse, father, sibling) in the last three months
- experiencing psychological problems

Data Collection

The online data collection form prepared Google-Forms was sent to the participants via social media (Facebook, Instagram, WhatsApp, etc.) and the data was collected by simple random sampling method. Data Collection Tools

Question form: In this form, age, age at marriage, economic status, education level, region of residence, family type, consanguineous marriage, type of consanguineous marriage, consanguineous marriage among relatives, reasons for deciding on consanguineous marriage, the person who decided to marry the woman, the effects of marriage on working and educational life, the status of approval of consanguineous marriage, the status of being subjected to violence by the woman's spouse, the number of children, the number of pregnancies, the number of miscarriages, the number of stillbirths, the death of a child between 0-12 months, the death of a child between 13 months and 5 years of age, and the status of health problems in children were questioned.

Analysis of Data

Data analysis was done in SPSS 24.0 program. Frequency acquisition was used for descriptive analysis, and chi-square was used for comparative analysis of independent groups. Statistical significance level was evaluated as $p < 0.05$.

Ethical Aspect of Study

The study was approved by the [Kilis 7 Aralık University] Institutional Review Board (approval no. 06/2020). The research was conducted in accordance with the principles of the Declaration of Helsinki. Acknowledgment was obtained that all your patients/participants gave written informed consent

Limitations of the Study

The limitations of the study are that it was applied only in three centers, no sample selection was made, that the data could not be collected face-to-face due to the COVID-19 pandemic, and that the survey was generalizable.

RESULTS

It was found that of women 58, % were between 36-69 years old, 55.7% were between 19-25 years old at marriage age, 66.7% had an economic status equal to their income and 47.2% had university graduate and above, 37.4% living Mediterranean region, 88.6% live in nuclear family, 21.9% consanguineous marriage, 14% cousin marriage, 69.7% there are people who are in consanguineous marriage in their relative, 53.3% love marriage. 15.6% due to family pressure, 10% for fear of being alone, 8.4% because of economic difficulties, 6.2% to escape from their family, 76% decided to marry themselves, 24% family made the decision to marry, 25.4% the marriage decisions stated that their marriage had a negative impact on their education life, 26.8% stated that their marriage had a negative impact on their working life, 93.3% does not approve of consanguineous marriage, 6.7% approved of consanguineous marriage, 88.8% verbal violence by spouses, 7.3% physical violence by spouses, 0.8% sexual violence by spouses, 54.9% having 2-3 children, 49.0% had 2-3 pregnancies, 19.9% had one miscarriage, 9.3% had two miscarriages, 6.9% had stillbirth, 5.1% had infant death between 0-12 months. 2.8% had child death between 13 months and 5 years and 19.9% had health problems in their children (Table 1). It was determined that the children of the women had asthma, bronchitis (17), anemia: (14), mental (2) and physical disabilities (11), heart disease [TGA (2), ASD (5), VSD (5)], thalassemia (4), epilepsy (4), migraine (4), spinal straightening, herniated disc (4), diabetes (3), autism (3), cleft palate & cleft lip (3), hyperactivity (3), cerebral palsy (2), familial Mediterranean fever (FMF) (2), down syndrome (2),

dyslexia (2), methylmalonic acidemia (MMA) (1), hypertension (1), hypotension (1), juvenile rheumatoid arthritis (1), idiopathic juvenile osteoporosis (1), SMA (1), eczema (1), MADD (glutaric acidemia type 2) (1), ciliary dyskinesia (1) (Table 1).

Table 1. Distribution of descriptive data of women and their children

Data		n=508	%
Age	18-35 age	210	41.3
	36-69 age	298	58.7
Age at marriage	14-18	94	18.5
	19-25	283	55.7
	26-38	131	25.8
Economical status	Income less than expenses	97	19.1
	Income equals expense	339	66.7
	Income more than expenses	72	14.2
Education status	Literate and primary school graduate	143	28.2
	Middle and high school graduate	125	24.6
	University and higher education	240	47.2
Region of living	Mediterranean	190	37.4
	Southeastern Anatolia	176	34.6
	Central Anatolia	142	28.0
Family type	Nuclear family	450	88.6
	Extended family	58	11.4
Consanguineous marriage status	Yes	111	21.9
	No	397	78.1
Consanguineous marriage type	first degree	71	14.0
	Second degree	40	7.9
	No	397	78.1
Consanguineous marriage status in relatives	Yes	354	69.7
	No	154	30.3
Reasons for making the decision to marry	Love	271	53.3
	Family pressure	79	15.6
	Fear of being single	51	10.0
	Running away from your own family	32	6.3
	Economic problems	43	8.4
	Preventing economic income from going to foreigners	9	1.8
	Berdel (marrying their children with the exchange of boys and girls between two families)	8	1.6
Decision to marry	Herself	386	76.0
	Family	122	24.0
State of thinking that marriage negatively affects education life	Yes	129	25.4
	No	379	74.6
State of thinking that marriage negatively affects working life	Yes	136	26.8
	No	372	73.2
Confirmation of consanguineous marriage	Yes	34	6.7
	No	474	93.3
Violence by the spouse of the woman	Verbal violence	451	88.8
	Physical violence	37	7.3
	Sexual violence	4	0.8
	No	16	3.1
Number of child	A child	120	23.6

	2-3 children	279	54.9
	4-12 children	109	21.5
Number of pregnancies	For once	108	21.3
	2-3 times	249	49.0
	4-20 times	151	29.7
	For once	101	19.9
Miscarriage count	2 times	47	9.3
	No	360	70.9
Stillbirth	Yes	35	6.9
	No	473	93.1
0-12 month child death	Yes	26	5.1
	No	482	94.9
Death of 13 months-5 years old child	Yes	14	2.8
	No	494	97.2
Health problem status in the child	Yes *	101	19.9
	No	407	80.1

*Asthma, bronchitis:17, anemia:14, mental (2) and physical disability (11):13, heart disease TGA (2), ASD (5), VSD (5):12, thalassemia:4, epilepsy:4, migraine:4, spine straightening, lumbar and neck hernia:4, diabetes:3, autism:3, cleft palate and cleft lip:3, hyperactivity:3, cerebral palsy:2, familial Mediterranean fever (FMF):2, down syndrome :2, dyslexia:2, methylmalonic acidemia (MMA):1, hypertension:1, hypotension:1, juvenile rheumatoid arthritis:1, idiopathic juvenile osteoporosis:1, SMA:1, eczema:1, MADD (glutaric acidemia type 2):1, ciliary dyskinesia:1.

11.4% of the women who were consanguineous and 64.6% of the women who were not consanguineous stated that they made the marriage decision themselves (Figure 1).

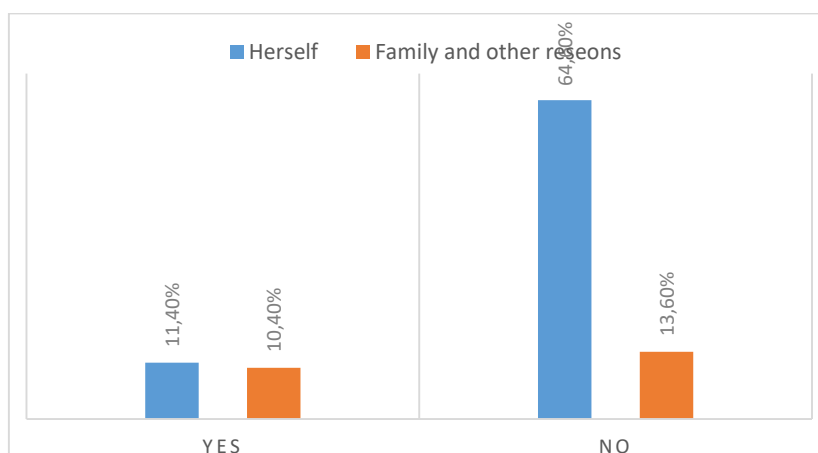


Figure 1. The situation of the woman herself making the marriage decision for those who have consanguineous marriages (YES) and those who do not (No)

It was determined that 8.3% lived in the Southeastern Anatolia region, 7.7% in the Mediterranean region, and 5.9% in the Central Anatolia region of women consanguineous married. Also, It was found that the rate of infant death, stillbirth, miscarriage, number of pregnancy and having a health problem in their child was higher in women who had consanguineous marriages. It was determined that there was a statistically significant difference between the status of consanguineous marriage and the age at which the women got married, their education level, their status of there are people who are in consanguineous marriage in their relative, the status of making a marriage decision, the status of thinking that the marriage affects their working life negatively, the status of approval of consanguineous marriage, the number of children, the number of pregnancies, stillbirth, 0-12 months baby the deaths ($p < 0.05$) (Table 2).

Table 2. Relationship between consanguineous marriage and data on women and children

Consanguineous status		Yes	No	Significance
Data		n(%)	n(%)	X ² /p
Age	18-35 age	41(8.1)	169(33.3)	X ² =1.14
	36-69 age	70(13.8)	228(44.9)	p=0.31
Age at marriage	14-18	45(8.9)	49(9.6)	X ² =53.5 p=0.001
	19-25	56(11)	227(44.7)	
	26-38	10(2)	121(23.8)	
Economic status	Income less than expenses	22(4.3)	75(14.8)	X ² =1.32 p=0.52
	Income equals expense	77(15.2)	262(51.6)	
	Income more than expenses	12(2.4)	60(11.8)	
Education status	Literate and primary school graduate	41(8.1)	102(20.1)	X ² =7.22 p=0.03
	Middle and high school graduate	29(5.7)	96(18.9)	
	University and higher education	41(8.1)	199(39.2)	
Region of living	Mediterranean	39(7.7)	151(29.7)	X ² =0.66 p=0.72
	Southeastern Anatolia	42(8.3)	134(26.4)	
Family type	Central Anatolia	30(5.9)	112(22)	X ² =2.13 p=0.15
	Nuclear family	94(18.5)	356(70.1)	
Consanguineous marriage status in relatives	Extended family	17(3.3)	41(8.1)	X ² =5.1 p=0.02
	Yes	87(17.1)	267(52.6)	
Decision to marry	No	24(4.7)	130(25.6)	X ² =43.8 p=0.001
	Herself	58(11.4)	328(64.6)	
State of thinking that marriage negatively affects education life	Family	53(10.4)	69(13.6)	X ² =1.63 p=0.20
	Yes	23(4.5)	106(20.9)	
State of thinking that marriage negatively affects working life	No	88(17.3)	291(57.3)	X ² =12.94 p=0.001
	Yes	34(6.7)	198(39)	
Confirmation of consanguineous marriage	No	77(15.2)	199(39.2)	X ² =5.72 p=0.02
	Yes	13(2.6)	21(4.1)	
Number of child	No	98(19.3)	376(74)	X ² =37.6 p=0.001
	A child	16(3.1)	104(20.5)	
	2-3 childre	48(9.4)	231(45.5)	
Number of pregnancies	4-12 children	47(9.3)	62(12.2)	X ² =6.51 p=0.03
	For once	15(3)	93(18.3)	
	2-3 times	55(10.8)	194(38.2)	
	4-20 times	41(8.1)	110(21.7)	

Miscarriage count	For once	23(4.5)	78(15.4)	$X^2=3.36$ $p=0.2$
	2 times	15(3)	32(6.3)	
	No	73(14.4)	287(56.5)	
Stillbrith	Yes	15(3)	20(3.9)	$X^2=9.71$
	No	96(18.9)	377(74.2)	$p=0.002$
0-12 month child death	Yes	12(2.4)	14(2.8)	$X^2=9.47$
	No	99(19.5)	383(75.4)	$p=0.002$
Health problem status in the child	Yes *	19(3.7)	82(16.1)	$X^2=0.68$
	No	92(18.1)	315(62)	$p=0.42$

*Asthma, bronchitis:17, anemia:14, mental (2) and physical disability (11):13, heart disease TGA (2), ASD (5), VSD (5):12, thalassemia:4, epilepsy:4, migraine:4, spine straightening, lumbar and neck hernia:4, diabetes:3, autism:3, cleft palate and cleft lip:3, hyperactivity:3, cerebral palsy:2, familial Mediterranean fever (FMF):2, down syndrome :2, dyslexia:2, methylmalonic acidemia (MMA):1, hypertension:1, hypotension:1, juvenile rheumatoid arthritis:1, idiopathic juvenile osteoporosis:1, SMA:1, eczema:1, MADD (glutaric acidemia type 2):1, ciliary dyskinesia:1.

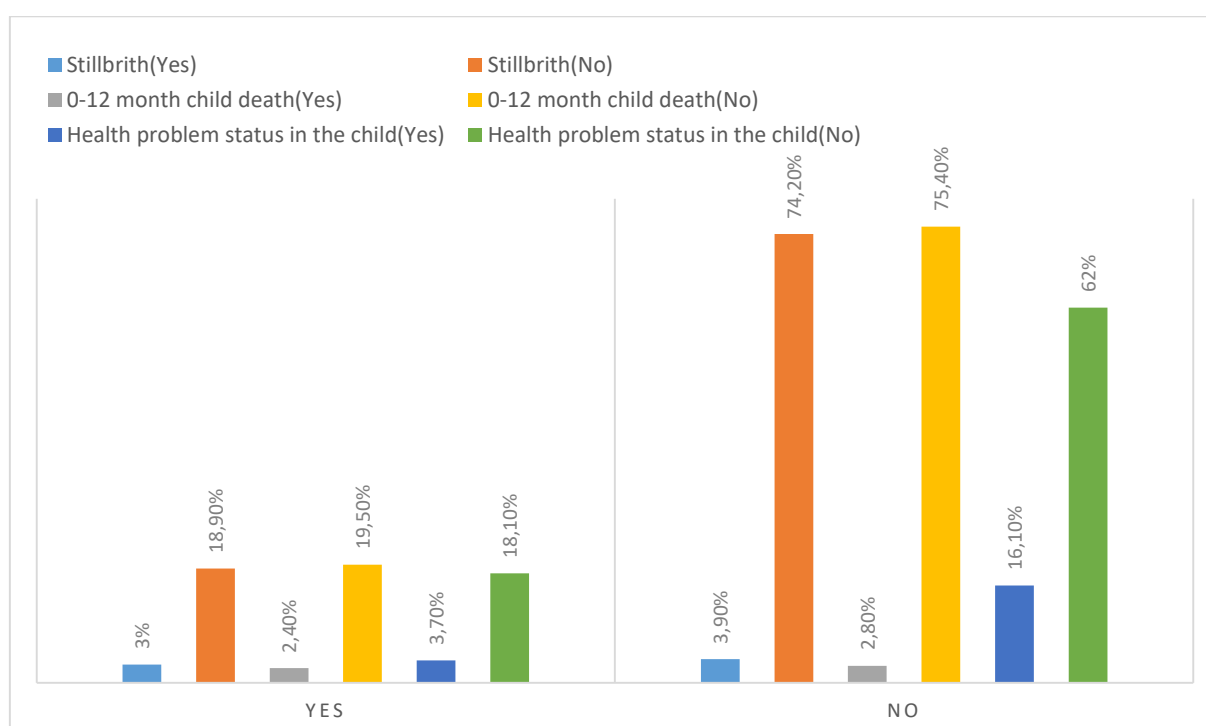


Figure 2. Comparison of consanguineous (Yes) and not (No) women in terms of stillbirth, child death and health problems in their children

Of the women who were consanguineous stated that they had 3% stillbirth, 2.4% stated that their 0-12 month old child died, and 3.7% stated that their child had a health problems. of the women who were not consanguineous stated that they had 3.9% stillbirth, 2.8% stated that their 0-12-month-old child died, and 16.1% had a health problems in their child (Figure 2).

DISCUSSION

In this study, which investigated the rate of consanguineous marriages, their causes, names and effects on child health, it was determined that nearly a quarter of the women had consanguineous marriages and the majority had consanguineous marriages.. When we look at the literature, it has been determined that the rate of consanguineous marriage is higher in our country (24%) in the population and health survey data of Turkey (TPHS), and it has been reported that the rate of consanguineous marriages is quite high in our country in different study (Mayda et al., 2010; Çaha and Altınkoz, 2021; Sevinç and Yavaş Çelik, 2016b; TPHS, 2018). In addition, it was determined that the rate of cousin marriages is 11%, and the

rate of second-degree cousin marriages is 13% in our country (TPHS, 2018). When we look at the literature, it has been reported in different studies that consanguineous marriages are more common in Muslim societies and that the majority of those who do consanguineous marriages are cousins. (Sharma et al., 2020; Acharya and Sahoo, 2021). It has been observed that there is a parallelism between the rates of cousin marriages in our study and the rates in the studies. However, the rate of consanguineous marriage in our study was found to be lower than the rates in the literature. We can say that this low rate is due to the high education level of the majority of women. In addition, the high rate of consanguineous marriage (69.7%) among the relatives of the women in our other result showed us that the rate of consanguineous marriages is actually higher in our country.

The rates of consanguineous marriages according to the regions in our study were found in a similar order with the reports made in our country. According to the regions in our country, the rate of consanguineous marriage is given as 43% in the Southeastern Anatolia region, 32% in the Mediterranean region, and 25% in the Central Anatolia region, respectively (TPHS, 2018). It was determined that 8.3% lived in the Southeastern Anatolia region, 7.7% in the Mediterranean region, and 5.9% in the Central Anatolia region of women consanguineous married in this study. These results showed us that our study was carried out in the right regions and that the rates of consanguineous marriages were correct according to the regions in our country.

The answers given by the women in our study as the reason for making the marriage decision are quite striking. It was determined that of the women, 24.0% stated that their family made the decision to marry, 15.6% of them decided to marry due to family pressure, 6.2% of them stated that they got married to escape from their own family. From these results, it was understood that women were pressured by their own families and forced to marry. In addition, it was determined that 8.4% decided to get married due to economic difficulties. Studies have also reported that consanguineous marriages are more common in families with low economic status (TPHS, 2018; Sevinç and Yavaş Çelik, 2016b; İnandı et al., 2016). In addition, in a study, it was found that some socio-demographic characteristics such as educational status, working in an income-generating job, place of residence, family type are associated with consanguineous marriage (Sen and Aksu, 2015).

It was determined that of the women participating in the study, 25.4% stated that their marriage had a negative impact on their education life, and 26.8% stated that their marriage had a negative impact on their working life. In addition, it was determined that the education level of the women who had consanguineous marriages was lower and there was a statistically significant difference between the women who stated that marriage had a negative effect on their working life. In a study conducted, it was determined that the education level of women who had consanguineous marriages was low (İnandı et al., 2016). It is known that most of the women who have consanguineous marriages have a low level of education. In order to improve this problem, it can be said that it is necessary to guarantee the education of girls by the states and to increase the employment of women in the field of work.

In the study, it was determined that the majority of women did not approve of consanguineous marriage, while a minority group approved of consanguineous marriage. Similar results were obtained in two studies conducted in our country. In these two studies, as in our study, most of the women reported that they did not approve of consanguineous marriage (Tabak, 2008; Sen and Aksu, 2015). Although it is pleasing that most women do not approve of consanguineous marriage, unfortunately there are still women who approve of consanguineous marriages and are satisfied with these marriages, which is a sad result. In a study, it was determined that women are satisfied with marrying their relatives, and they think that they will be a more compatible couple when they marry their relatives. (Sen and Aksu, 2015). These expressions of women are thought to be the underlying reason for consanguineous marriage, which is a traditional form of marriage

It was determined that of the women, 88.8% were subjected to verbal violence from their husbands, 7.3% of them were physically abused by their spouses, and 0.8% of them were sexually abused by their spouses. It has been reported that 9% of women have been subjected to physical violence in Turkey demographic and health surveys (2018) data (TPHS, 2018). Unfortunately, the place of women in education and working life in our country is quite bad. (TPHS, 2018). Women with a low level of education cannot protect themselves because they do not have economic freedom and continue

to marry for economic reasons even though they are exposed to violence (Akkaş and Uyanık, 2016). This is a very sad picture. For this reason, it can be said that there is a need to develop policies to empower more women and to prevent women from being subjected to violence.

It was found that the majority of women had 2-3 children, had 2-3 pregnancies, and had a miscarriage once. Also, it was found that the rate of infant death and child, stillbirth, miscarriage, number of pregnancy and having a health problem in their child was higher in women who had consanguineous marriages. Studies have also reported that with consanguineous marriage, women are married at a young age, forced to become pregnant too much, and low survival rates are high. (Sevinç and Yavaş Çelik, 2016; Sümer et al., 1996). In addition, it was determined that there is a statistical significance between the status of consanguineous marriage and the number of children, the number of pregnancies, the number of stillbirths, and 0-12 month old infant deaths. These results showed us that consanguineous marriage affects women's and children's health negatively. This is also reported in most studies in the literature. Miscarriage, stillbirth, and infant death were reported to be more common in consanguineous married women (İnandı et al., 2016; Dayıoğlu et al., 2019). In addition, children of the women who participated in our study had genetically inherited, thalassemia, diabetes, disability-causing diseases, heart diseases, autism, cleft palate and cleft lip, hyperactivity, cerebral palsy, familial Mediterranean fever (FMF), Down syndrome, dyslexia, methylmalonic acidemia (MMA), juvenile rheumatoid arthritis, idiopathic juvenile osteoporosis, SMA, eczema, MADD (glutaric acidemia type 2), ciliary dyskinesia. In two studies, it was reported that the rate of birth of a child with a disability is much higher in consanguineous women than in other women (Sümer et al., 1996; Akbaba et al., 2012). According to these results, it can be said that consanguineous marriage has very negative effects on child health and it is necessary to take initiatives that will contribute to our society's move away from this practice, which has been a tradition for centuries, in order to eliminate this type of marriage.

CONCLUSSION

According to the result of this research; It can be said that more than one-fifth of the women included in the study are consanguineous, 14% of the marriages are cousins, almost half of the women in consanguineous marriages are decided by their families to her married, the economic situation of these women is not good, infant and child death, number of miscarriages the number of pregnancies and stillbirths are higher in consanguineous marriages. It was determined that the participants' children had many permanent/chronic diseases. Additionally, 3% of women in consanguineous marriages stated that they had a stillbirth, and 2.4% stated that their children died between 0-12 months. These results show that baqraba marriages have negative effects on both women's and children's health.

Conflict of interest

There is no conflict of interest to declare in this study.

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Author Contributions

Plan, design: MYÇ; **Materials, methods, and data collection:** SG, MYÇ; **Analysis and interpretation:** SG, MYÇ; **Writing and critical assessment:** SG, MYÇ

KAYNAKLAR

- Acharya, S., Sahoo, H. (2021). Consanguineous marriages in india: prevalence and determinants. *Journal of Health Management*, 23(4):631-648. <https://doi.org/10.1177/09720634211050458>
- Akbaba, M., Kis SU., Nazlıcan, E., Gündüz E. (2012). Adana Havutlu beldesinde özürzlük sıklığı ve özürzlülerde akraba evliliği sıklığının araştırılması. *TAF Prev. Med. Bull*, 11(6): 725-730.
- Akkaş İ., Uyanık Z. (2016). Kadına yönelik şiddet. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 6 (1): 32-42.
- Boran, P., Gökçay, G., Devocioğlu, E., Eren, T. (2013). Çocuk gelinler. *Marmara Medical Journal*, 26(2):58-62. DOI: <https://doi.org/10.5472/MMJ.2013.02751.1>
- Çaha, Ö., Altınkoz, O. (2021). Roman topluluklarında evlilik pratikleri. *Yıldız Social Science Review*, 7(1):58-74.
- Dayıoğlu, H., Yılmaz, A., Bulut E. (2019). The frequency and outcomes of consanguineous marriage in the province of Kütahya. *Journal of Science and Technology of Dumlupınar University*, 43:53-73.

- Erdem, S., Çakmak, Z.A., Saygun, M., Kocakap, DBS., Bekmez, SA., Arıkan, FB. (2018). Evaluation of frequency, affecting parameters of the consanguineous marriages and effect to hereditary disorders. *Kocatepe Medical Journal*, 19:64-68.
- Goundali, KE., Chebabe, M., Laamiri, FZ., Hilali, A. (2022). The determinants of consanguineous marriages among the arab population: A systematic review. *Iran J Public Health*, 51(2):253-265. DOI:10.18502/ijph.v51i2.8679
- Hamamy, H. (2012). Consanguineous marriages preconception consultation in primary health care setting. *Journal of Community Genetic*, 3:185-192. DOI 10.1007/s12687-011-0072-y
- İnandı, T., Savaş, N., Arslan, E., Yeniçeri, A., Peker, E., Alışkın, Ö., Erdem, Ö., Durmaz, E. (2016). Causes and prevalence of consanguineous marriage, child health, happiness in relationships and life satisfaction among the women in Hatay. *Turk J Public Health*, 14(1):44-55. <http://tjph.org/ojs/index.php>.
- Mayda, A., Dağlı, S., Şahin, R., Danışman, F., Dere, F., Çeler, A., Çelik, D., Burgucu, S., Bulut, N., Başar, R., Avcı, Ö. (2010). Düzce ili Yığılca ilçe merkezinde akraba evliliği sıklığı ve etkileyen faktörler. *Düzce Tıp Dergisi*, 12(2):36-41.
- Sen, RS., Aksu, H.(2015). The incidence of consanguineous marriages and affecting factors in women aged 15-49 years in Aydın, Turkey. *Florence Nightingale Hemşirelik Dergisi*, 23(2): 126-135.
- Sevinç, S., Yavaş Çelik, M.(2016a). Akraba evliliklerinin çocuk sağlığına etkisi ve hemşirelik yaklaşımı. *Sağlık ve Toplum*, 26(2):23-28.
- Sevinç, S., Yavaş Çelik, M. (2016b). Akraba evliliği ile algılanan sosyal yetkinlik ve çocuk sağlığı. *Mersin Üniversitesi Sağlık Bilimleri Dergisi*, 9(3):122-130.
- Sharma, SK., Kalam MZ., Ghos S., Roy S. (2020). Prevalence and determinants of consanguineous marriage and its types in India: evidence from the National Family Health Survey, 2015–2016. *Journal of Biosocial Science*, 53: 4, 566–576 doi:10.1017/S0021932020000383.
- Sümer, H., Koçoğlu, G., Polat HH., Koçoğlu F. (1996). Sivas il merkezi ve köylerinde akraba evliliği sıklığı ve ana-çocuk sağlığına etkileri, *Cumhuriyet Üniversitesi Tıp Fakültesi Dergisi*. 18 (4): 291-294.
- Tabak, A. (2008). Endokrinoloji ve metabolizma polikliniğimizden takipli hastalarda akraba evliliği sıklığı ve akraba evliliğini etkileyen faktörler. *Uzmanlık Tezi, T.C. Sağlık Bakanlığı İstanbul Bakırköy Kadın Doğum ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi, İstanbul*.
- TPHS (population and health survey data of Turkey). (2018). Evlilik (Akraba Evliliği). pp:47-51.