

Original Article

Unintended pregnancies, induced abortions and risk factors in women admitted to hospitals due to birth or abortion in Hatay

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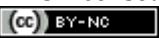
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Abstract

Objective: The aim of this study is to determine the frequency of unintended pregnancies, induced abortions and associated risk factors in women who have been admitted to hospitals in Hatay. **Method:** The subjects of this cross-sectional study were women who had been admitted to hospitals for the purposes of delivery or abortion, during a month-long period. A structured questionnaire was taken by 635 women. Unintended pregnancy was dependent variable. The independent variables were: age, husband's age, civil status, total number of pregnancies, employment, use of family planning methods and family planning consultation services. Chi-square and Student's t-test were used to analyze of data. **Results:** 21.4% of women reported using a family planning method when they got pregnant and 15.1% of the women said they did not want to be this pregnant. Ages of the women and their husbands, as well as the total number of pregnancies, were higher among unintended pregnancies ($p < 0.05$). The frequency of unintended pregnancies increased where the husbands were unemployed, education levels of the couple were low, women were single or not officially married, disabled, or did not receive consultancy from their family physicians about family planning ($p < 0.05$). 45.8% of all unintended pregnancies happened without the use of any family planning methods ($p < 0.01$).

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10.4% ended with spontaneous abortions and 4.25% were ended with induced abortions. The primary reason given for induced abortion was economic difficulties (44%). **Conclusion:** Unintended pregnancy rate is high in Hatay. It is estimated that almost half of all induced abortions are reported as spontaneous abortions.

Key words: Unintended pregnancy, induced abortion, Hatay

Hatay'da hastanelere doğum ya da düşük nedeniyle başvuran kadınlarda istenmeyen gebelikler, isteyerek düşüklükler ve risk faktörleri

Özet

Amaç: Bu çalışmanın amacı Hatay'da doğum ya da düşük nedeniyle hastaneye başvuran kadınlarda istenmeyen gebelik ve isteyerek düşük sıklığını ve bunlarla ilişkili risk faktörlerini belirlemektir. **Yöntem:** Kesitsel nitelikteki çalışmanın evreni bir ay içinde doğum ve düşük nedeniyle Hatay'daki hastanelere başvuran kadınlardır. Toplam 635 kadına anket uygulanmıştır. İstenmeyen gebelikler bağımlı değişken, kadının ve eşinin yaşı, nikah durumu, eğitim, toplam gebelik sayısı, çalışma durumu, aile planlaması yöntemi kullanma ve danışmanlık alma durumu bağımsız değişken olarak alınmıştır. Analizlerde Ki-kare ve Student-t testleri kullanılmıştır. **Bulgular:** Kadınların %21.4'ü gebe kaldığında bir aile planlaması yöntemi kullandığını belirtmekle birlikte, %15.1'i bu gebeliği istemediğini bildirmiştir. İstenmeyen gebeliği olan kadın ve eşlerinin yaşları yüksek ve toplam gebelik sayıları daha fazladır ($p<0.05$). Eşi çalışmayanlarda, düşük eğitim düzeyine sahip kadın ve eşlerde, bekar ya da resmi nikahı olmayanlarda, engellilerde ve aile hekiminden aile planlaması danışmanlığı almayanlarda istenmeyen gebelik daha fazladır ($p<0.05$). İstenmeyen gebeliği olanların %45.8'inin gebe kaldığında herhangi bir aile planlaması yöntemi kullanmadığı, %20.8'inin de geri çekme yöntemi kullandığı saptanmıştır. İstenmeyen gebeliklerin %65.3'ü canlı doğumla, %25.0'ı isteyerek düşükle sonuçlanmıştır. Tüm gebeliklerin %10.4'ünün kendiliğinden, %4.25'inin ise isteyerek düşükle sonuçlandığı bildirilmiştir. İsteyerek düşüklüklerin birinci nedeni ekonomik zorluk olarak gösterilmiştir (%44). **Sonuç:** Hatay'da istenmeyen gebelik sıklığı yüksektir. İsteyerek düşüklüklerin yarıya yakınının kendiliğinden düşük olarak bildirildiği tahmin edilmektedir.

Anahtar sözcükler: İstenmeyen gebelik, isteyerek düşük, Hatay

Introduction

An unintended pregnancy is an unplanned pregnancy where one or both of the partners do not desire a child. In the case of unintended pregnancies, partners may either never want children or may deem the timing unsuitable.¹ In 2008, 86 million (41%) of the estimated 208 million

pregnancies globally were unintended, and 33 million (38%) resulted in unplanned births.² In Turkey, according to the Demographic Health Survey -2013 (TNSA-2013), 12.5% of women did not want pregnancy and 11.2% of them wanted a pregnancy only at a later date.³

Unintended pregnancies may result from a lack of information about

reproductive health issues, rapes, a lack of family planning (FP) services or a lack of access to contraceptive services¹. Even in the most convenient and widespread use of contraceptive methods, unintended pregnancies may still occur due to misuse and method failures⁴. Other substantial factors include: insufficient dialogue between partners about the regulation of fertility and contraception, the exclusion of women from decision-making status, and the low status of women in society.¹

Women who have an unintended pregnancy are also at risk for unintended childbearing, which is associated with a number of adverse maternal behaviors and child health outcomes, including inadequate or delayed initiation of prenatal care, smoking and alcohol use during pregnancy, premature birth, and lack of breastfeeding, as well as negative physical and mental health effects on children.⁵⁻¹² Unfortunately, population-based studies have shown that women with unintended pregnancies recognize their pregnancies later than women who are trying to conceive.^{13,14}

Induced abortion is the termination of pregnancy with a voluntary external interference.¹⁵ About one in five pregnancies ended with an abortion in 2008¹⁶. The abortion rate was lower in sub regions where more women live under liberal abortion laws.¹⁶ Turkey's main objective in reducing abortion rates is to prevent unintended pregnancies without interfering with individual fertility preferences, as emphasized in the Cairo Plan of Action.¹⁷ However, it has been observed that certain statements, such as "*We will put emphasis on reproductive health, but we, as a government, do not adopt FP.*", "*Every woman must give birth to at least three children.*", and "*Abortion is murder.*", made by senior decision makers have reflected in abortion-related health services recently in Turkey.¹⁸ TNSA- 2008 indicates that unintended pregnancy has first place among the reasons for abortion in Turkey.¹⁹

This study's objective is to determine the frequency of unintended pregnancies and induced abortions in

women who were admitted to hospitals in Hatay, and their possible risk factors.

Method

This cross-sectional study was conducted in April, 2014, in Hatay, which is located in the Eastern Mediterranean Region of Turkey, and has a border with Syria. The subjects of the study were the women admitted to hospitals in Hatay due to delivery or abortion. According to the data obtained from Hatay Provincial Health Directorate, 32,451 babies were born in all Provincial hospitals (7 state, 8 private) in 2013. It was calculated that 2704 babies would be born in a month and approximately 675 babies would be born within working hours. According to the birth/abortion ratio in TNSA, the number of total births and abortions per month was predicted to be 823. The inclusion of women in the study was targeted without the use of sampling methods, and carried out within the working hours of a month.

Fifty item questionnaires, examining women's sociodemographic and pregnancy, fertility, abortion and FP-related circumstances, were used for data collection. Data was collected by nurses and midwives working in the obstetrics service of the hospitals. The questionnaire was applied before the women were discharged. Of the 657 women who participated in the survey, 388 of them (61.1%) were from state hospitals and 247 of them (38.9%) were from private hospitals. The data gathered from 635 women, who answered all the questions in the survey, was deemed appropriate for further analysis. The presence of an unintended pregnancy was the dependent variable. The independent variables were: age, husband's age, civil status, total number of pregnancies, employment, use of family planning methods and family planning consultation services.

During statistical analyses, frequency tables, chi-square and Student's t-test were performed by using SPSS 19; and $p < 0.05$ was considered as statistically significant. Verbal consent of the subjects and the permission of the Mustafa Kemal

University, Clinical Research Ethics Committee wastaken for the study. The funding for this research was provided by Mustafa Kemal University-BAP (Project No: 9000).

Results

The study analyzed data from 635 women. 84.7% (538) of the pregnancies resulted in live births, with 14.7% (93) resulting in abortions, and 0.6% (4) resulting in stillbirths (Figure 1). The age distribution of the women and their partners were 27.4±6.2 and 32.2±6.1 respectively. Of the women, 62.7% (398) were living in urban regions seat. 94.5% (594) of the women were officially married and 79.4% (504) of

them were living in nuclear families, with an average household population of 4.6±2.4 (min.2-max.23). Regarding education levels; 16.5% (102) of the women were illiterate or had not completed primary school, and 34.5% (213) of them were primary school graduates. For their partners, these rates were 7.4% (44) and 35.0% (207) respectively. Of the women, 81.2% (514) were unemployed, whereas this rate was 7.5% (47) for their partners. In terms of their general health status; 6.6% (41) of them had chronic diseases, and 1.6% (10) had permanent disability.

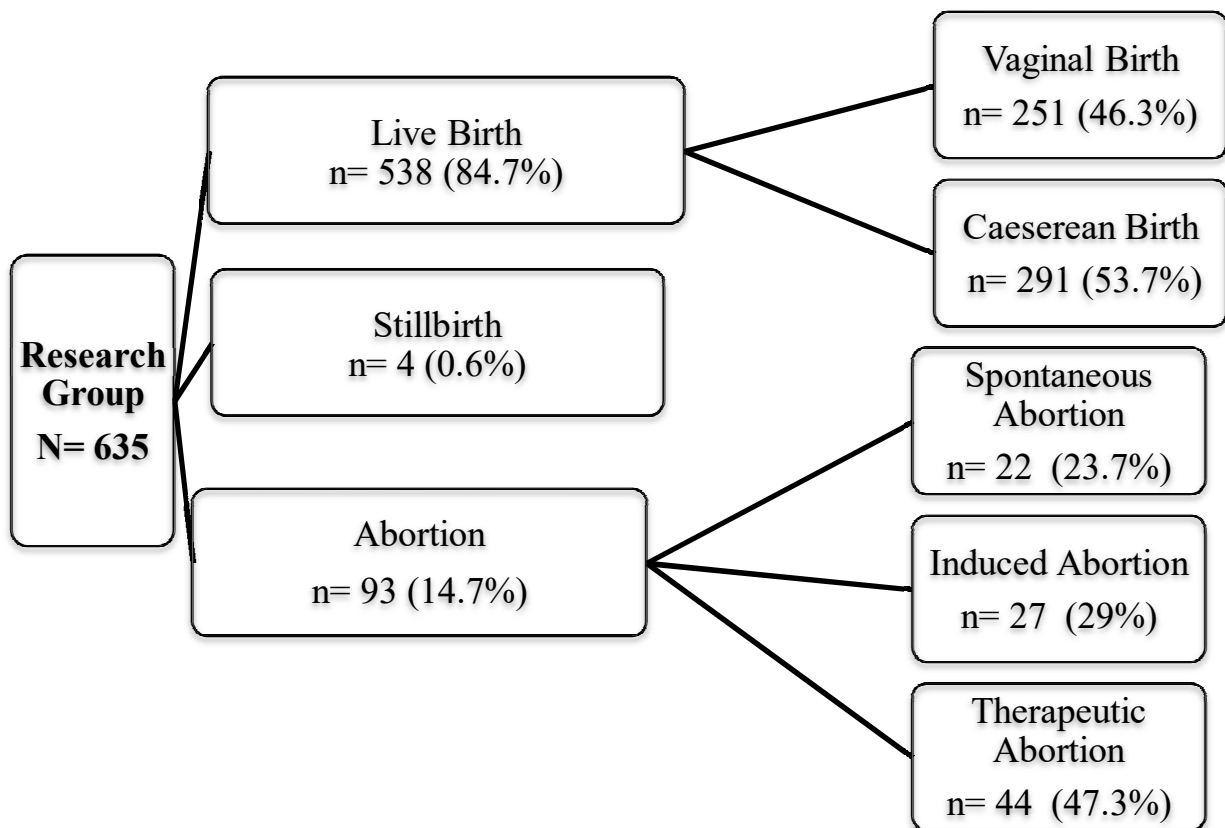


Figure 1. Status of pregnancy termination of the research group

For 36.7% of the women, it was their first pregnancy. The average number of live births per woman was 2.18 ± 1.38 (0-9) while the average number of total pregnancies was 2.71 ± 1.64 (min.1-max.11). For 42.3% (170) of the participants, their previous pregnancy interval was 24 months or less. 21.4% of the women were using some kind of traditional or modern FP methods. When asked whether they had ever used a FP method in their lifetime; 40.8% said they had never used any method, and 25.3% said they only used the coitus interruptus method. Regarding whether they had ever received FP consultancy during their lifetime; 59.2% of them said they had never received any information, and 53.7% said they had never gotten any information about FP from their family physician. 15.1% (96) of the pregnancies which are researched in this study were unintended (Figure 2).

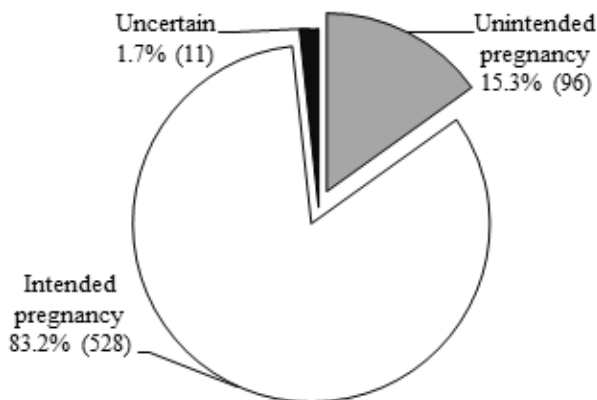


Figure 2. The Distribution of the Pregnancies by Intention (N=635)

The age, partner's age, household population, number of the live births and total number of pregnancy averages of the ones who had unintended pregnancies were higher compared to the ones who had an intended pregnancy ($p < 0.01$) (Table 1). The women who were single or widowed, had an informal marriage, were primary school graduates or had a lower level of education, were disabled and whose partners were unemployed had

more unintended pregnancies ($p < 0.05$). The numbers of unintended pregnancies decreased as the education level of the husbands increased ($p < 0.05$). A significant relationship was not found between unintended pregnancy rate and family type, place of residence, and whether the woman was working or not ($p > 0.05$). Also, a significant relationship was not found between whether the pregnancy was intended or not, and the time between two pregnancies ($p > 0.05$).

In the study, 45.8% of the women with unintended pregnancies were not using any kind of FP method when they got pregnant and 20.8% of them were using the coitus interruptus method (Table 2). The most common method among the women with unintended pregnancies was coitus interruptus (42.0%). The percentage of the available information provided from family physicians was lower in unintended pregnancy cases (43.3%) in comparison to the cases of intended pregnancies (55.9%) ($p < 0.05$). In addition, 45.8% of the women with unintended pregnancies, who were not using a FP method when they got pregnant, were never provided information from family physicians about FP methods ($p < 0.01$). On the other hand, 90.6% of women said that they would use FP methods in the future ($p = 0.002$). FP method use was not associated with education level of the women ($p > 0.05$).

Of the unintended pregnancies, 63.5% resulted in live birth and 25.0% resulted in induced abortions, whereas 89% of the intended pregnancies resulted in live births and 1% resulted in induced abortions (Figure 3). Of the abortions, 85.2% were performed in private hospitals. 42.1% of the women who had an abortion in their last pregnancy went on to have an abortion during the study.

The primary reason given for abortion was economic difficulties (44%), followed by already having a sufficient number of children (28%). Of the women who had abortions, 39% stated that it was a decision of both partners, 34.8% stated that they would use an IUD, and 26.1% stated that they would have tubal ligation.

Table 1. Sociodemographic characteristics of the women by intention of pregnancy (N=635)

	Intended Pregnancy		Unintended Pregnancy		p
	<i>Mean±SD</i>		<i>Mean±SD</i>		
Women's age	27.0±5.9		29.5±6.9		<0.001*
Husbands' age	31.8±5.9		33.6±6.9		0.01*
Household population	4.4±2.3		5.6±2.6		<0.001*
Number of live births	2.0±1.3		2.8±1.6		<0.001*
	Number	%	Number	%	
Marital Status (N=624)					
Married	523	85.3	90	14.7	0.003^{&}
Single-Widowed	5	45.5	6	54.5	
Official Marriage (N=624)					
Absent	23	63.9	13	36.1	<0.001^{&}
Available	505	85.9	83	14.1	
Family Type (For Married Ones) (n=613)					
Nuclear family	424	86.0	69	14.0	0.331[#]
Extended family	99	82.5	21	17.5	
Place of Residence (N=624)					
Urban region	323	83.0	66	17.0	0.159[#]
Rural region	205	87.2	30	12.8	
Women's Education Level (N=607)					
Illiterate-Primary School	252	81.3	58	18.7	0.003[#]
Secondary-High-University	267	89.9	30	10.1	
Husbands' Education Level (N= 584)					
Illiterate-Primary School	35	81.4	8	18.6	
Primary School	170	82.9	35	17.1	0.035^λ
Secondary School	91	86.7	14	13.3	
High School	135	87.1	20	12.9	
University	70	92.1	6	7.9	
Women's Working Status (N=624)					
Employed	99	85.3	17	14.7	0.809[#]
Unemployed	429	84.4	79	15.6	
Husbands' Working Status (N= 615)					
Employed	492	86.5	77	13.5	0.002[#]
Unemployed	32	69.6	14	30.4	
Elapsed time between current and previous pregnancies (N=384)					
24 months ≥	127	78.9	34	21.1	0.260[#]
24 months <	186	83.4	37	16.6	
Disability in Women (N=609)					
Absent	513	85.6	86	14.4	0.046^{&}
Available	6	60.0	4	40.0	
Chronic Disease in Women (N= 583)					
Absent	491	85.7	82	14.3	0.067[#]
Available		75.0	10	25.0	

* Student's t-test; & Fisher's exact test; # Chi-square test; λ Linear by linear Chi-square test

Table 2. Availability and use of family planning methods by intended or unintended pregnancy

	Intended Pregnancy		Unintended Pregnancy		p [#]
	Number	%*	Number	%*	
Availability of FP-related information provided from family physician during lifetime (N= 573)					
Provided	270	55.9	39	43.3	0.028
Unprovided	213	44.1	51	56.7	
Use of a FP method at the time of Conception (N=616)					
Used	81	15.5	51	54.2	<0.001
Unused	441	84.5	43	45.8	
FP method would be used in the Future (N=624)					
None	70	13.3	5	5.2	0.002
Coitus interruptus	66	12.5	4	4.2	
Modern methods	392	74.2	87	90.6	

*Row percentage; # Chi-square test

Discussion

Unintended pregnancies are common among women of all backgrounds, regardless of age or socioeconomic, racial, ethnic, religious or marital status.²⁰ Despite increasing contraceptive availability, unintended pregnancies remain a global problem, representing as many as 30% of all known pregnancies.²⁰ About 37% of births in the United States were unintended at the time of conception and the overall proportion has not declined significantly since 1982.²¹ According to the TNSA 2013, 23.7% of pregnancies were unintended (11.2% were mistimed, and 12.5% were unwanted). The frequency of unintended pregnancies was found to range between

27.1%-46.2% in studies conducted in several Turkish provinces.²²⁻²⁴ In the aforementioned studies, the inverse relationship between the frequency of unintended pregnancies, and the frequency of the use of FP methods prior to pregnancy, was remarkable. In our study, 15.1% of the women said that they did not want to be pregnant and 21.4% said that they were using a FP method prior to getting pregnant. It is possible that the 6.3% difference emerged due to adaptive rationalization by the mother. It must be noted that although a pregnancy may be unwanted or unintended in the beginning, it can later result in a desired and loved child. Thus, unintended pregnancies are often underreported.³

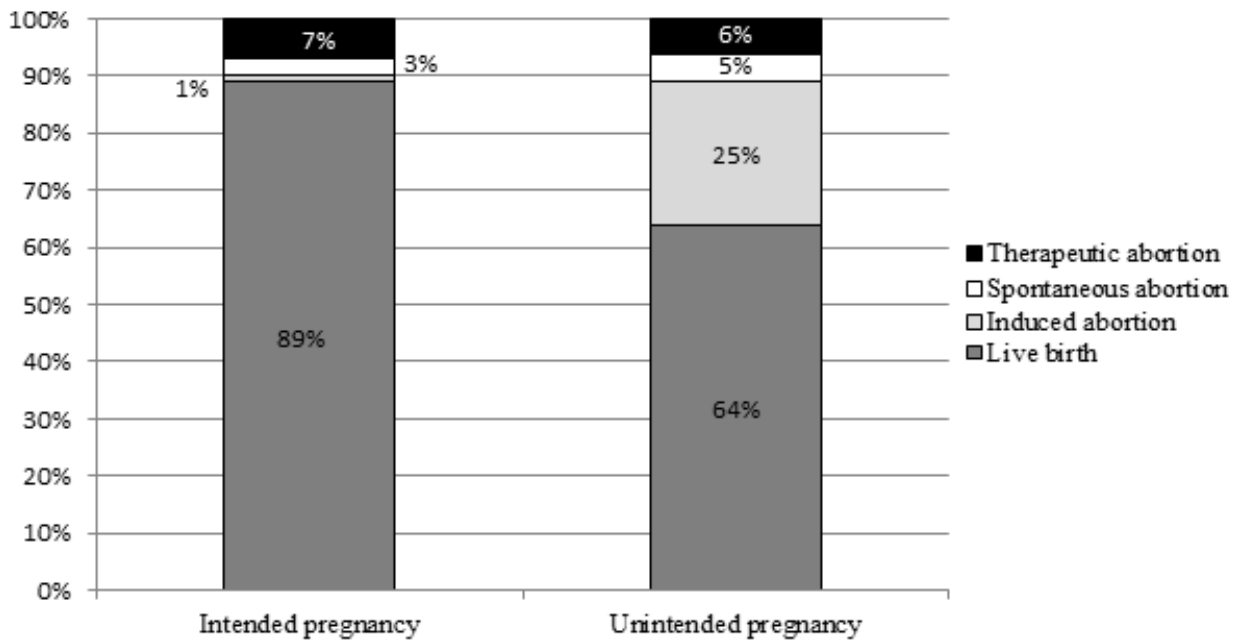


Figure 3. Delivery outcomes in intended and unintended pregnancies

The percentage of unintended pregnancies was found to be lower than in previous studies. This difference may be related to changing political policy about family planning, as well as contributing regional factors. The ruling party, in pursuing a pro-natalist policy, has declared support for larger families and has argued against family planning methods.¹⁸ Although abortions up to 10 weeks are still legal, there is increasing pressure on patients and doctors to forego this option.

Another reason for the low prevalence of unintended pregnancies may be associated with the timing of the study. The interviews were performed in the few days after delivery when the mother-child bond may be particularly strong.

Unintended pregnancies may be associated with many variables. Our study shows that women's and husbands' age, household populations, and the number of live births and total pregnancies were higher for participants with unintended pregnancies. The prevalence of unintended pregnancy was higher in women who were single or widowed, had low education levels, were disabled and whose husbands were unemployed. The rate of unintended

pregnancy was shown to decrease as the husband's education level increased. According to Demographic and Health Surveys from 41 countries, unwanted births in the poorest quintile of the populations were more than twice that observed in the wealthiest quintile.²⁵

According to the results of the research conducted by Erol et al. in Izmir (located in Western Turkey) women's and husbands' older age and lower education, lower social class, women's recent migration to Izmir, lower household income and absence of social security had a negative impact on pregnancy intention.²⁶

Risk factors associated with unintended pregnancies determined by our study were similar to both the results of the studies in the world and the results of studies conducted in different regions of Turkey. The time between current and previous pregnancies was shorter than 24 months for 42.3% of the women. However, this factor was not found to have an impact on whether the pregnancy was intended or not. Similarly, a study conducted in Van (Eastern Turkey) in 1996 by Atar et al, showed no significant relationship between pregnancy intervals and the state of

pregnancy as either intended or unintended.²⁷ The results achieved by these two studies, conducted in two different regions of Turkey, and 19 years apart, showed that despite short intervals, pregnancies were still wanted. This also indicates that fertility is still highly desired.

With regard to family planning and unintended pregnancies, our study indicates that 45.8% of unintended pregnancies resulted in the absence of any kind of FP method, and 20.8% used the coitus interruptus method. Many women who do not want children, or who postpone it to later ages, still do not prefer protection despite of the availability of convenient contraceptive methods and the increase of their use.²⁸

According to research from CDC, approximately half (53%) of all unintended pregnancies occur following a failure to use contraception at the time of conception.²⁹ A similar situation can be observed in Turkey; TNSA-2008 points out that 39% of unintended pregnancy cases did not use any kind of FP method, and 39% used coitus interruptus method.¹⁹ It was also detected by Kitapçioğlu's study (Izmir) that coitus interruptus method was used in 38.1% of unintended pregnancies.²⁴

The high frequency of insufficient FP method usage could be attributed to a lack of adequate information provided by family physicians. According to the Regulation on Family Physicians, providing FP services is one of the main responsibilities of family physicians.³⁰ Women who do not use FP methods when they do not have the intention of getting pregnant constitute a risk group that needs to be monitored by family physicians. However, the potential FP services provided by family physicians are not included in their performance charges and are not controlled. Therefore, flaws can occur in terms of the provision of the FP services.

The study showed that a quarter of the unintended pregnancies resulted in abortions, and more than half of them (63%) resulted in live births. According to Nur's study conducted in Sivas, a province in the Central Anatolian Region of Turkey, 30% of

unintended pregnancies resulted in abortion.²² Bilgili's study, conducted in 2009, indicates that 28.8% of women have had an unintended pregnancy in their lifetime, and most of them have had an abortion at least once.²³ On the other hand, the desired total fertility rate (TFR) is 1.9 according to the Turkey Demographic Health Survey, whereas the actual TFR is 2.3 children.³ In other words, despite the fact that some of the unintended pregnancies result in an abortion, most of them result in births.

In Turkey, pregnancies can be terminated with an abortion within the legal time period of up to 10 weeks. This requires the consent of both women and their husbands, largely due to social and economic reasons.⁵ However, it has been observed in recent years that the statements of senior policy-makers, such as "*Abortion is murder*", have abortion-related health care implications.¹⁸ Additionally, according to Hwang's study, promoting an ideologically driven approach to sexual and reproductive health, the recent policy developments threaten to subvert ethical standards of medical care and the principle of evidence-based policy.³¹ Kitapçioğlu's study conducted in 2006 states that 10.9% of women have had an abortion at least once.²⁴ In Turkey we can say that there is a clear discrepancy between law and practice.

The other remarkable issue is the changing rates of intended and spontaneous abortion. TNSA- 2003, 2008 and 2013 showed that induced abortion rates are 11.3%, 10.5% and 4.7% respectively, whereas spontaneous abortion rates are 10.0%, 10.5% and 14.0%.^{3,19} Meaning that there has been a 55.2% decrease in induced abortion rates and a 33.3% increase in spontaneous abortion rates. If we consider our study's results, the induced abortion rate was detected as 4.3%, and spontaneous and therapeutic abortion rates as 10.4%. The results achieved by both the TNSA-2013 and our study indicate that women may be making false declarations about their abortion experiences due to societal pressures, which are exasperated by the anti-abortion discourse of senior decision-makers. Yet, as a study made in Pakistan emphasizes awareness and counselling

services for aborting women, for their health risks, as well as about human perspective of the issue, needs to be initiated, for better management of their reproductive health and rights.³²

According to Kitapçioğlu's study, the average number of abortions is 1.2 ± 0.6 .²⁴ Regarding our study, 42.1% of the women whose previous pregnancy resulted in abortion, also ended in abortion. FP services provided especially in hospitals after both birth and abortion have a great importance for the reduction of unintended pregnancies. It was proved by a multicenter study made in Lebanon, Peru and Nepal that FP service given in hospital after birth substantially increased the use of contraceptives.³³

Conclusion

According to this research where 635 women were included; unintended pregnancy rate is high in Hatay although it is underrepresented due to the probable impact of rationalization. In nearly half of all unintended pregnancies no FP method, including withdrawal, is used. More than half of the women who do not use FP methods are not provided any information about FP methods from their family physicians. In accordance with the Turkish Demographic Health Survey, induced abortions were underrepresented, while spontaneous and therapeutic abortions were overrepresented most likely due to societal pressures.

Limitations

Limitation of this study was that only the women who gave birth or had abortions within working hours were included in the study.

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