

Original investigation

Investigating Generation Differences in The Use of Family Planning Method: A Cross-Sectional Study

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ABSTRACT

Purpose: The study is aimed to investigate the use and reveal differences of family planning methods of X and Y generations by using social media.

Methods: Research data was collected via social media through internet based survey software, including totally of 642 persons, who are in X and Y generations. In the collection of research data, was used the questionnaire about the socio-demographic characteristics and the use of 'Family Planning Method' for the individuals.

Results: It was specified that 28.6% condom, and 21.4% tubal ligation of X generation, 63% condom and, 13.5% withdrawal of Y generation was used and there was a significant difference between the groups ($p < 0.001$). Unwanted pregnancy status was found significant difference was found between the generations.

Conclusions: As a result, there was no difference usage rates of family planning method between X and Y generations, but there were significant differences in the methods of modern and traditional methods used in both groups. Unwanted pregnancy experience is high in both groups, but this ratio is significantly higher in the X generations, and the approximately half of these pregnancies resulted to birth and curettage, these results show that there has been still a great need for unmet family planning.

Keywords: family planning; X and Y generations; social media

INTRODUCTION

In today's world, there have been five generations; and lifestyles and perspectives on life have been changing. The X generation includes individuals born between 1961–1981, and is referred as "Transitional Generation" in Turkey. The Y generation, which is considered as a valuable group since it constitutes the main consumer and worker groups for institutions and companies, includes individuals born between 1982–2000. In the literature, the X generation is defined as the generation that has various backgrounds, and that is well-educated, open-minded, and individualistic compared to the previous Baby Boomer Generation (1). On the other hand, the Generation Y is a generation that is open to ethnic diversity; is accustomed to growing up alone and free because of the increase in the number of divorced parents and working mothers; has strong, self-confident, and positive emotions (2). The fact that the Y generation is more technologically, economically and educationally advanced than the X generation gives it the ability to have tendency to be innovative and determined. However, it is foreseen that the

X generation may be more limited because of its traditional approach. This distinctive approach between generations reveals itself through providing change and development in many ways, ranging from sexual health practices to family planning.

The use rate of family planning methods in our country has not yet reached the desired level (3). According to the Turkey Demographic and Health Survey (TDHS, 2018), total fertility rate is 2.3%. According to the results of TDHS 2018, 49% of women aged 15–49 use modern contraceptive methods and 21% of them use traditional methods, which refers that 70% of total use one of any contraceptive methods. It is determined that the most common modern methods used are "intra uterine devices" with a usage rate of 17%, "condom" with a usage rate of 19%, and "withdrawal" with a usage rate of 20%. Additionally, TDHS (2018) data show that the use rate of modern family planning methods has increased in Turkey every year, while the use rate of traditional contraceptive methods decreases. The most important reason for

this is considered as the differences in family planning methods between the X and Y generations. When the use rates of the methods in TDHS data are examined according to the generations, it is determined that individuals within the X generation use the traditional method, rhythm method, withdrawal, intra uterine device, diaphragms, and tubal ligation mostly, while individuals within the Y generation mostly use modern methods such as the pill, injection, implant, condom, and emergency contraception (4). These results clearly show that there are differences between method use rates and preferences among generations, modern methods will be preferred at a higher-level in the future, and new research will be carried out due to the increased need for different modern methods.

According to the data in Turkey, Internet and social media usage rates have highly increased every year, the percentage of individuals using the Internet is 72.9% and 83.8% had access to the Internet from home (5). Turkey has followed the worldwide trend of rapid growth of Internet access. At the same time using a web survey is good strategy to reach the broader population, with easier appraisal of response rates, automatic building of databases, respondents' anonymity and cost-effectiveness (6). Based on these, in this research, it is aimed to investigate the use of family planning methods of individuals in the X and Y generations by observing social media and to determine the method use rates, their knowledge, attitude, and behaviours towards methods, and the factors that may have influence on these methods.

METHODS

Study Design and Data Collection Procedures

The research is designed to identify the factors through social media that may influence the use and the rate of family planning methods, knowledges, attitudes, and behaviours of individuals belonging the X and Y generations. The research is conducted on individuals who are social media users belonging the X and Y generations between the dates of 01.02.2017 to 01.08.2017.

Samples

The research sample consists of 642 individuals that are reached by the random sampling method as active social media users on the internet. All the individuals have agreed to participate in the research. The inclusion criteria of participants are women and men who accept to participate in the study and become a volunteer, have Internet access via a safe computer/device, are native Turkish-speakers, are married or have had a sexual partner currently or in the past, and belong to the X or Y generations. Participants that have no sexual experience, that refuse to be part of the research, or that are under 18 years old were excluded from this study.

Data Collection

In the data collection, surveys named as "Socio-Demographic Characteristics Information Form" and "Family Planning Method Use and Knowledge Form" were developed based on researching the literature (6-10). The survey was carried out through using an

internet survey program. The participation has been conducted through a link of the survey that is distributed by researchers on social media and e-mail. The amount of time to fill data collection forms were approximately 15-20 minutes.

Ethics and Consent

The research was conducted after obtaining approval from the Scientific Ethics Committee of Ege University Nursing Faculty (Number: 15, Meeting: 02/03/2016). Since the questionnaire was carried out on the web, it was first allowed to respond to questions once individual confirmations are received. The study, along with the voluntary nature of participation, was explained to the participants. The informed consent process did not include a signed consent form, but rather a waiver of documentation for informed consent, which participants read online and clicked "accept" to indicate agreement.

The participants had the right to skip any questions if they did not wish to answer. After the completion of the research, the survey was deleted. As a result, necessary steps are taken to protect the safety and confidentiality of all participants that are included in the study, such as numeric identifiers for identification, reporting of aggregate data, omitting identifiers in the data collected, and destroying all information after completion of the study.

Data Analysis

The IBM-SPSS 20.0 package is used for data analysis. In the analysis of data, frequency and percentage are calculated. Pearson chi-square test, Yates Corrected Chi-Square Test, and Fisher exact chi-square test are applied to evaluate the differences between generations.

Statistical difference is affected by the sample number (11), effect size value eliminates the results arising from sample number and helps to reach truer decisions about the obtained results. For this purpose, effect size measurement calculated according to differences in group averages is shown through Cohen's *d* (Cohen, 1998), Glass's *g* (Glass, 1976), and Hedge's *d* (Hedge, 1981) (12). Therefore, to evaluate the effect size that depends on the numerical difference between generation, the Cohen *d* value is utilized.

RESULTS

It is determined that the average age of the participants is 31.62 ± 6.08 ; 84.7% are in the Y generation; 87.2% are female; 54.4% have a bachelor's degree; 87.7% are nuclear family members; 81.6% are working; 47.8% are officials; 47.5% have a good income; and 49.7% are living in metropolises.

It is found that 60.2% of participants belonging X generation and 70% of participants belonging Y generation answered the question of "What is family planning?" was explained. There is a significant difference between generations regarding the sources of information ($X^2=18.568$, $p=0.002$). For the question of "Which partner should use family planning methods?", it is

found that 62.2% of the members of the X generation and 51.8% of the members of the Y generation state that any partner can use it, which shows a statistical difference between generations ($X^2=7.669$, $p=0.022$) (Table 1).

In terms of protection, 71.4% of the members of the X generation and 72.1% of the members of the Y generation use a contraception

method. For those who use contraception methods, 61.4% of the participants from the X generation and 69.1% of the participants from the Y generation state that they use modern methods, which shows no difference between generations ($X^2=2.445$, $p=0.295$). When it comes to using contraception methods for the X generation, the most frequent method is condom, which is at the rate of 28.6%, then comes tubal ligation, which is at the

Table 1. Investigation of knowledge attitude and behaviours about family planning according to X and Y generations

	Total		X		Y		Test-p değeri	
	n	%	n	%	n	%		
Do you have knowledge about family planning?								
Yes	580	90.3	91	92.9	489	89.9	$X^2=0.838$ $p=0.360$	
No	62	9.7	7	7.1	55	10.1		
Access to information*							$X^2= 18.568$ $p=0.002$	Cohen $d^*=0.174$
Doctor	164	26.3	38	40.9	126	23.8		
Nurses. Midwives	169	27.1	17	18.3	152	28.7		
Internet	44	7.1	10	10.8	34	6.4		
Friends	85	13.6	8	8.6	77	14.5		
Printed publication	41	6.5	8	8.6	33	6.2		
Education & professional	120	19.3	12	12.9	108	20.4		
Which partner should use family planning methods?							$X^2=7.669$ $p=0.022$	Cohen $d^*=0.106$
Myself	79	12.3	15	15.3	64	11.8		
Partner	220	34.3	22	22.4	198	36.4		
Myself or my partner	343	53.4	61	62.2	282	51.8		
Currently. use a contraception method							$X^2=0.016$ $p=0.898$	
Yes	462	72.0	70	71.4	392	72.1		
No	180	28.0	28	28.6	152	27.9		
The reason for not using family methods							$X^2=30.390$ $p=0.000$	Cohen $d^*=0.189$
Child demand	53	29.4	8	27.6	45	29.8		
Don't want by partners	14	7.8	2	6.9	12	7.9		
Don't trust your protection	8	4.4	2	6.9	6	4.0		
Lack of knowledge	1	.6	0	.0	1	.7		
Being pregnant	45	25.0	0	.0	45	29.8		
Health problems	18	10.0	9	31.0	9	6.0		
Myths	5	2.8	0	.0	5	3.3		
Sexual inactivity	36	20.0	8	27.6	28	18.5		
Protection situation now							$X^2=77.535$ $P=0.000$	Cohen $d^*=0.206$
Pill and Injection	62	13.1	9	12.7	53	13.5		
Intrauterine device	43	9.1	9	12.7	34	8.7		
Condom	267	58.2	20	28.6	247	63.0		
Withdrawal	66	14.2	13	18.6	53	13.5		
Tubal ligation	15	3.3	15	21.4	0	0		
Others (Calendar method, Vaginal douche, Breastfeeding)	9	2.1	4	5.7	5	1.3		
Knowledge about type of family planning methods which they used							$X^2=2.445$ $P=0.295$	
Traditional	89	19.2	18	25.7	70	17.9		
Modern	313	67.7	43	61.4	271	69.1		
Undecided/Unknown	60	13.1	9	12.9	51	13.0		
Define as an effective method which are used							$X^2=3.198$ $P=0.202$	
Yes	392	83.8	65	90.3	321	82.3		
No	36	7.7	3	4.2	33	8.5		
Undecided or unknown	40	8.5	4	5.6	36	9.2		
Time using contraceptive methods							$X^2= 25.797$ $P=0.000$	
1 year	103	22.3	4	5.8	99	25.2		
1-3 years	124	26.8	11	15.9	113	28.8		
3-5 years	83	18.0	6	8.7	77	19.6		
5 years and upper	152	32.9	48	69.6	104	26.5		
The method was recommended by whom ?							$X^2= 9.310$ $P=0.054$	
Doctor	148	23.1	31	47.0	117	31.5		
Midwife / Nurse	89	13.9	7	10.6	82	22.1		
Friend	47	7.3	8	12.1	39	10.5		
Internet	43	6.7	4	6.1	39	10.5		
Professional experience	110	17.1	16	24.2	94	25.3		

* The Cohen's d value is small effect, do the numerical difference between generation can be rule out.

rate of 21.4%, and lastly withdrawal, which is at the rate of 18.6%. Regarding using contraception methods for the Y generation, the use of condom is at the rate of 63%, withdrawal is at the rate of 13.5%, and the method of pill is at a rate of 13.5%. There is a significant difference found between generations ($X^2=77.535$, $p=0.000$) (Table 1) (Table 2).

Regarding satisfaction with the contraception methods, it is found that 45.8% of the members of the X generation are very satisfied, and 64.4% of the members of the Y generation are satisfied. There

is a significant difference between generations regarding the satisfaction level ($X^2=24.347$, $p=0.000$) (Table 2).

The results showed significant differences in that 50% of the participants within the X generation and 60.7% of the participants within the Y generation know emergency contraception ($X^2=3.903$, $p=0.048$). In the case of emergency contraception use, it is found that 17.3% of the X generation and 25% of the Y generation use emergency contraception, and there is no difference between generations ($X^2=2.274$, $p=0.132$) (Table 2).

Table 2. Investigation of experience family planning according to X and Y generations

	Total		X		Y		Test-p değeri	
	n	%	n	%	n	%		
Having problem related to using methods								
Yes	48	10.4	10	14.2	38	9.7	$X^2= 1.187$ $P=0.276$	
No	414	89.6	60	85.8	354	92.3		
Problems related to using methods							$X^2=8.255$ $P=0.220$	
Weight Loss and Number Disorder	10	20.8	1	11.1	9	23.1		
Allergy	2	4.2	0	.0	2	5.1		
Nausea-Headache	7	14.6	2	22.2	5	12.8		
Tear / Drop	19	39.6	3	33.3	16	41.0		
Pregnancy	5	10.4	3	33.3	2	5.1		
Numbness	2	4.2	0	.0	2	5.1		
Vaginitis / Irritation	3	6.3	0	.0	3	7.7		
General satisfaction related to using methods							$X^2= 24.347$ $P=0.000$	
Very satisfied	84	18.2	25	34.7	62	15.9		
Satisfied	287	62.1	33	45.8	251	64.4		
Unstable	64	13.9	11	15.3	53	13.6		
Not glad	21	4.5	0	.0	21	5.4		
Never satisfied	6	1.3	3	4.2	3	0.8		
Think to change the method which are used?							$X^2= 1.586$ $P=0.452$	
Yes	56	12.1	6	8.0	50	12.9		
No	327	70.8	56	74.7	271	70.0		
Undecided	79	17.1	13	17.3	66	17.1		
Methods to use before. then to leave							$X^2= 11.885$ $P=0.001$	
Yes	297	46.3	61	62.2	236	43.4		
No	345	53.7	37	37.8	308	56.6		
The Barriers to Sustained Contraceptive Use							$X^2= 9.358$ $p=0.228$	
Side effect	122	19.0	29	40.3	93	28.9		
Health problem	37	5.8	10	13.9	27	8.4		
Afraid of tellers or myths	20	3.1	3	4.2	17	5.3		
Pregnancy Request / Pregnancy	153	23.8	22	30.6	131	40.7		
Afraid of being pregnant	5	3.3	2	2.8	19	5.9		
Unwillingness of partner	21	5.0	5	6.9	27	8.4		
Using difficulties	32	.6	1	1.4	3	.9		
Other (Breastfeeding, Religious Beliefs)	5	.8	0	.0	5	1.6		
Knowledge of Emergency Contraception							$X^2= 3.903$ $p=0.048$	Cohen d^* $=0.377$
Yes	379	59.0	49	50.0	330	60.7		
No	263	41.0	49	50.0	214	39.3		
Methods known as emergency contraception							$X^2=8.044$ $p=0.090$	
Pills	297	89.5	35	79.5	262	91.0		
Injection	4	1.2	1	2.3	3	1.0		
Curettage	5	1.5	3	6.8	2	.7		
IUD	23	6.9	4	9.1	19	6.6		
Withdrawn + Vaginal Douche	3	0.9	1	2.3	2	.7		
Using Emergency Contraception							$X^2=2.274$ $p=0.132$	
Yes	153	23.8	17	17.3	136	25.0		
No	489	76.2	81	82.7	408	75.0		
Experience of unintended pregnancy							$X^2= 10.833$ $P=0.001$	Cohen d^* $=0.211$
Yes	97	19.6	28	33.3	69	16.8		
No	494	80.4	56	66.7	341	83.2		
Result of unwanted pregnancy							$X^2= 10.220$ $P=0.001$	Cohen d^* $=0.195$
Spontaneous abortions	13	11.0	7	7.1	6	21.2		
Curettage	51	43.2	18	38.8	33	54.5		
Birth	54	45.8	8	54.1	46	24.2		

* The Cohen's d value is mostly small effect, do the numerical difference between generation can be rule out.

The most noteworthy finding is that unintended pregnancy is determined as 33.3% of the members in the X generation and 16.8% of the members in the Y generation, and a significant difference is found between the generations ($X^2=10.833$, $p=0.001$). When women in both groups are considered, it is found that 43.2% had an abortion and 45.8% gave a birth. In the case of unintended pregnancy, it is found that the members of the X generation have the highest proportion regarding bearing a child (54.1%), while the members of the Y generation undergo curettage mostly for pregnancy determination (54.5%) ($X^2=10.220$, $p=0.001$) (Table 2).

DISCUSSION

In our research, both men and women have a shared role in the reproductive event that ensures the continuity of the generations, therefore, family planning services require responsibility and role sharing at equal levels between men and women (14). In the study, for the question of "Which partner should use family planning methods?", 62.2% of the X generation members and 51.8% of the Y generation members think that anyone of both partners can use family planning methods, while the Y generation members were more likely to state that more than one partner should use the methods compared to the members of the X generation. Offering family planning consultancy service to only one partner, especially to woman, does not prevent the use of traditional methods. The role of men in the usage and determination of both the methods during pregnancy is particularly known today. It is proposed by many experts to make arrangements regarding providing counselling services to couples, and providing explanations on methods specifically to men (13, 15–16). It is thought emphasizing the equality of both partners to the members of the X generation, which are considered to be more dependent on the traditional methods, is a significant and different result regarding the differences among the generations. When it is considered that the majority of participants are women, the expectation from the partner to use contraceptive methods by the participants within the Y generation gives rise to the idea that there is a need for developing new methods and consultancy services, especially for men within the Y generation.

In the research, most of the individuals in both generations are protected with modern methods. In TDHS 2018, similar to our study, it was determined that most of the women use at least one of the modern methods (4). A wide ranging study conducted in Turkey indicated that the most preferred contraceptive methods were IUDs (37.38%), cautious interrupts (15.74%), oral contraceptive (15.65%), condoms (12.8%) (17). In the research, it was found that the X group mostly uses condom, tubal ligation, and withdrawal, respectively, while the Y group uses condom, withdrawal, and pill. Condom is used more frequently in developed countries (mostly in Japan, England, the USA, and the Scandinavian countries) and in regions that have higher education level (18). Similar to our research, in the literature, it is determined that most women use condoms because of reliability, its comfortable use, and satisfaction after use. Additionally, a relation was found between condom use and high levels of education (8, 9, 19–22). Similar to

the studies in the literature, as condom is the most used method due to its relatively slight side effects and good features such as its reliability, its cheapness and easy access, allowance for men participation, resistance to sexually transmitted diseases, it is considered that condom is preferred more compared to other methods by individuals that participated in our study. Tubal sterilization is an effective and permanent contraception method; therefore, it is expected that it can be a preferable method for the age group of the X generation in accordance with the number of children; however; the Y generation may not prefer it due to the idea that continuity for fertility is necessary. Also, in the study of Zhang et al (2009), it is stated that women who are younger and well-educated have a high probability of choosing temporary birth control methods because of easy knowledge acquisition, informed choice, and getting information about contraception, which refers to the importance of generational difference (23). However, for all the age groups, condom, withdrawal, and pill/injections are the most used methods. In the US, last literature emphasized that "most shifts in recent contraceptive use have occurred among the most effective methods—sterilization and LARCs" (24), which cause the significant decline in the abortion rate (25, 26). Therefore, it is seen that withdrawal methods are still used considerably by the members of both X and Y generations (% 18.6 and % 13.5, respectively). Although modern methods are known within both groups at a high rate, the fact that the commonly used withdrawal method, which may cause unwanted pregnancy in the future, is in accordance with mother and child mortality and morbidity. This finding suggests that there is not much change in the selection of methods among generations. Regarding healthcare professionals, it is necessary for all age groups to provide detailed information about family planning services to health institutions whenever it is possible in order to develop awareness and help to understand the importance of the opportunity, as well as to work towards resolving the issues for not changing this tendency in different generations.

Emergency contraception (EC) offers an alternative for individuals in order to prevent unplanned pregnancy and has an important role in family planning methods. In our research, it is found that 50% of the members of the X generation and 60.7% of the members of the Y generation know about emergency contraception, also within both generations, pills are the most known methods for emergency contraception in both generations. In studies throughout the world, the awareness rate of emergency contraception varies between 6–77% (27–29). Also, when studies carried out in our country are examined, it is determined that the awareness rate of emergency contraception varies between 13–42.9%, and the most known method is the pill (26–28). In the studies, there is a positive relationship found between the state of being young, high level of education, and knowing or hearing about EC (30–32). As the members of the Y generation is younger than the X generation, the higher rates of knowing EC and using rates are expected in the results. Besides, the reason for high awareness towards EC is considered as related with the high level of participant education. However, even though half of the members of the X generation know about EC, the use rates

are lower, and the unwanted pregnancy rates are higher than the members of the Y generation, which can be interpreted as a consequence of the fact that X generation is more dependent on the traditional structure than Y, is not open to innovation, and is resistant to change. In Belayihun's work (2016), modern family planning is found to be lower in women that are 35 years old, or older, compared to younger women; and modern family planning is at the highest level in women who are under the age of 25 (33). Endiras et al. (2017) reports that the use of contraceptive methods is lower at the rate of 29–52% for women older age compared to young age women (34). The study results show similarities with the literature on the relations between negative effects between advanced age and contraceptive method using.

Obstacles to the use of birth control methods can cause 54 million unwanted pregnancies, 79.000 maternal deaths, and one million infant deaths each year (35). *95% of unintended pregnancies occur among women who either use their method inconsistently or incorrectly, or use no method at all* (24). In our study, unwanted pregnancy is found to be 33.3% in the X generation, and 16.8% in the Y generation. It is also remarkable that method for terminating pregnancy is different between the groups; the X generation gives birth as a result of unwanted pregnancy, while the Y generation terminates unwanted pregnancy mostly through curettage. The rate of unwanted pregnancy is lower in Y generation. Thus, an important result in the research is that the X generation terminates pregnancy through birth, while the Y generation terminates it with curettage. Although both are unwanted pregnancies, more members within the Y generation consider to undergo a curettage as a result of being devoted to freedom, having high self-esteem, not accepting authority, having individualistic characteristics, while the reason for terminating unwanted pregnancies with birth instead of curettage in the X generation might be considered as being contented, anxious, and respectful to society and authority. Additionally, regarding all the age groups, the fact that almost half of unwanted pregnancies end up with birth or curettage shows the importance of necessity regarding improved family planning.

Limitations of the Research

In this study, the researchers decided to use online surveys in order to protect the confidentiality and privacy of individuals, and to obtain reliable and accessible responses as there are still social taboos about sexuality (9, 10). But according to the data in Turkey, it is stated that age group, which has the highest proportion of computer and Internet use, is between 16–24; and 41.5% of the middle-aged, or older, individuals use the internet. Therefore,

as the higher Internet usage rates in this age group, the number of participants belonging to the Y generation is higher, and the sample could not be taken in equal numbers.

CONCLUSION and RECOMMENDATIONS

Consequently, it is not found that there is a significant difference between use rates of family planning methods in the X and Y generations; however, the difference is found between the methods that are used. At this point, it is seen that the most common methods in both the X and Y generations are similar, but it is a remarkable result that withdrawal is still one of the most used methods in both generations. As a result of the research, although there is a high level of awareness and adequate knowledge over family planning methods in both generations, it seems that there are still unmet needs for more detailed information on modern and traditional methods as there are mistakes in choosing proper contraceptive methods. It is thought that couples that are advanced in terms of age should be considered as a risky group, especially because of the lack of family planning. This age group should be given more importance in dealing with reducing unwanted pregnancy rates. It is important to note that generational differences that are indicated as the result of this study also show that the content and objectives of methodological trainings conducted by healthcare professionals should be properly designed for varying age groups.

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Informed Consent: Since the questionnaire was carried out on the web, it was first allowed to respond to questions once individual confirmations are received.

Compliance with Ethical Standards: The Scientific Ethics Committee of Ege University Nursing Faculty (Number:15, Meeting:02/03/2016).

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