

Contraceptive Attitudes and Use among Tertiary Students in Greece

Maria ILIADOU^a, Evangelia STAVRAKI^b, Triantafillia HINA^b, Eirini OROVOU^{a, b},
Maria TZITIRIDOU-CHATZOPOULOU^b, Panagiotis ESKITZIS^b, Evangelia ANTONIOU^a

^aDepartment of Midwifery, University of West Attica, Agiou Spyridonos 28,
12243 Egaleo, Greece

^bDepartment of Midwifery, University of Western Macedonia, Keptse,
50200 Ptolemaida, Greece

ABSTRACT

Objectives: A sizable fraction of young people with active sex lives do not utilize contraceptives and engage in high-risk sexual activity. School-based programs can prevent sexual activity, encourage birth control and reduce high-risk behavior. A survey was conducted to assess the key sources of knowledge on sexual education and document attitudes and methods of contraception used by Greek students, providing valuable information for expanding contraceptive services.

Materials and methods: A descriptive cross-sectional study was conducted by using an online questionnaire which was distributed to 206 digital student groups on social media platforms from May 20 to June 5, 2021.

Results: The majority of participants obtained information about contraception from the Internet and used male condoms to avoid unwanted pregnancy and protect against sexually transmitted diseases (STDs). The present study found that younger ages (18-20 and 21-25) preferred to use the male condom technique in an ephemeral relationship [$\chi^2(12) = 26.041$, Fisher's exact test $p = 0.0380.05$].

Conclusions: Exploring students' attitudes toward contraceptive usage can provide valuable insights for developing effective strategies to promote safe and responsible sexual behavior among this population.

Keywords: contraceptive methods, sexual behavior, sexual education, students, attitudes.

INTRODUCTION

Although contraceptive methods are widely available and effective nowadays, there are still a considerable number of unexpected pregnancies (1) as well as a high proportion of sexually transmitted diseases (STDs) (2). Contraceptive methods are classified into two categories: a) modern methods; and b) traditional methods. Modern methods include male and female con-

doms, the contraceptive pill, intrauterine device, spermicides, female and male sterilization, and contraceptive implants. Also, emergency contraception is used in the prevention of unintended pregnancy. Traditional methods usually include withdrawal and periodic abstinence, breastfeeding, cervical mucus method, or natural family planning (3). The two most popular methods of contraception for young people and adults are

Address for correspondence:
Maria Iliadou.

Address: Agiou Spyridonos 28, 12243 Egaleo, Greece
Tel.: +302105387455 E-mail: miliad@uniwa.gr

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oral contraceptives and condoms, followed by injections and coitus interruptus (withdrawal) (4, 5). According to the United Nations (UN), in 2019, 44% (842 million) of couples used modern techniques, 4% used traditional methods, 10% had unmet needs, and 42% did not need contraception (6). Incorrect or uneducated contraception use among young teenagers or adults can lead to unwanted pregnancies, abortions, STDs and, in some cases, family rejection. Also, unwanted pregnancies are major threats to young women's reproductive health in developed countries (7, 8). Numerous studies conducted in Greece reveal that a sizable fraction of young people with active sex lives don't utilize contraceptives and engage in high-risk sexual activity (9-15).

Given the increased sexual activity of adolescents and the reduced age of sexual initiation in developing countries, adolescent sexuality education and information are strategically important for public health. School-based sex education programs are critical to preventing the above problems, as they seem to postpone the onset of sexual activity, encourage the use of birth control, and reduce high-risk sexual behavior (16-18). However, several countries, including Greece, do not have well-developed sex education and contraception programs. Understanding diverse societal and personal differences is necessary to successfully deliver contraceptive services to the young population. Thus, this survey was carried out to (1) assess the key sources of knowledge on sexual education; and (2) document attitudes and methods of contraception used by Greek students. These revelations are believed to offer important information for expanding contraceptive services to young people. □

MATERIAL AND METHODS

Study design and participants

A descriptive cross-sectional study of young tertiary students was conducted. Due to the COVID-19 epidemic, the current study included an online questionnaire created using the Google Drive electronic format, which was distributed to digital student groups on social media platforms, resulting in a convenience sample. The survey included 24 questions covering demographic data, sexual behavior, opinions about contraceptive techniques, and information sources. The ques-

tionnaire was distributed between May 20 and June 5, 2021. It was completed by 216 people, with seven responses being invalid due to participants attending non-tertiary educational institutions. Three of the remaining 209 valid responses elected not to complete the questionnaire because they refused to accept the terms and conditions of participation. As a result, the remaining 206 responses were valid and full.

Ethics approval

The terms and conditions of participation in the research were initially drafted, stating that the questionnaire would only be completed by students from tertiary institutions and guarantee anonymity, data would be coded so that they could be processed, and participants' personal information would be preserved if this research was published for scientific purposes. Participants were then offered the choice of either opting out of the survey or consenting to participate. The Bioethics and Research Ethics Committee of the University of Western Macedonia approved the questionnaire (14/17-05-2021).

Data analysis

The received data were analyzed in the SPSS 22.0 program, using descriptive statistics and a Chi-squared test (χ^2) to determine differences among the selected groups. A test result with a p-value below 0.05 ($p < 0.05$) was considered statistically significant. □

RESULTS

Description of the sample and its sexual activity

The research sample included 206 tertiary students who completed an online questionnaire. Table 1 displays participants' socio-demographic characteristics as well as their sexual activity.

Key sources of knowledge on sexual education

In response to the question "Where have you obtained information about contraception?" (multiple answers), the majority of subjects (162 respondents, 79%) stated that they obtained information from the Internet, 106 (51.7%) from their parents, 124 (60.5%) from friends' experiences, 85 (41.5%) from a school information program, 82 (40%) from a gynecologist, nine (4.4%)

TABLE 1. Distribution of participants by demographic characteristic

Demographic variable		Frequency	Percentage
Gender	Male	51	24.8
	Female	155	75.2
Age group	18-20	57	27.7
	21-25	133	64.6
	26-30	15	7.3
	30+	1	.5
Personal status	Single	98	47.6
	In relation	104	50.5
	Married	2	1.0
	It is complicated	2	1.0
Do you have children?	No	204	99.0
	Yes	2	1.0
Department of study	(Other-non-health sciences)	170	82.5
	Health sciences	35	17.0
	Total	205	99.5
Have you had any sexual relations?	No answer	1	.5
	No	21	10.2
	Yes	185	89.8
Total		206	100.0

TABLE 2. Appropriate methods to avoid unwanted pregnancy

Which methods do you consider more appropriate to avoid unwanted pregnancy?	Frequency	Percentage
Male condom	114	55.3
Female condom	2	1.0
Contraceptive pills	62	30.1
Intrauterine device	16	7.8
Contraceptive diaphragm	2	1.0
Calendar rhythm method	4	1.9
Coitus interruptus	5	2.4
Spermicide	1	.5
Total	206	100.0

TABLE 3. Contraceptive methods that protect against sexually transmitted diseases

Which contraceptive methods do you think protect against sexually transmitted diseases?	Answers		% per sample
	N	% non-responses	
Male condom	204	72.3%	99.5%
Female condom	65	23.0%	31.7%
Contraceptive pills	5	1.8%	2.4%
Intrauterine device	5	1.8%	2.4%
Emergency contraception	3	1.1%	1.5%
Total	282	100.0%	137.6%

from midwives and 71 subjects (34.6%) from mass media.

When asked how to improve sexual education in Greece, the following answers were given by respondents: "Through education in Preschool and Primary school" by 150 (72.8%) of participants, "Through education in Secondary school" by 184 (89.3%), "Through courses at university" by 98 (47.6%), "Through better access to Family Planning centers" by 108 (52.4%) and "Through

better information from parents or guardians" by four subjects (1.9%).

Knowledge and usage of contraceptive methods

The majority of respondents gave several responses when asked "Which contraceptive techniques do you know?" (11 people only gave one response). Male condom was the most popular method (202 participants, 98.1%), followed by contraceptive pills (189 respondents, 91.7%), the diary method (134 subjects, 65%), female condom (132 participants, 64.1%), intrauterine device (120 respondents, 58.3%), intermittent intercourse (117 subjects, 56.8%), vaginal diaphragm (107 participants, 51.9%), spermicide (79 respondents, 38.3%) and finally the vaginal sponge (37 participants, 18%).

Tables 2 and 3 summarize responses to the question "Which method do you think is more appropriate for avoiding unwanted pregnancy?" in addition to "Which contraceptive methods do you believe are effective against STDs?"

The results of the χ^2 test showed that gender [$\chi^2 (7) = 7.360$, Fisher's exact test $p = 0.384 > 0.05$], age [$\chi^2 (21) = 12.517$, Fisher's exact test $p = 0.665 > 0.05$] and the department of study [$\chi^2 (7) = 5.249$, Fisher's exact test $p = 0.738 > 0.05$] were not significantly related to the answers regarding this question.

Additionally, when asked about the use of contraceptive methods, most participants seemed to use male condoms and a smaller number, contraceptive pills. Table 4 shows the different methods of contraception chosen by respondents.

According to our data, the majority of participants used contraception for two reasons: to avoid unwanted pregnancy and to protect against STDs (153 people, 74.3%), while 29 subjects (14.1%) answered to avoid unwanted pregnancy, three people (1.5%) answered to protect against STDs, and 21 people (who answered that they had no contacts) did not respond.

The answers provided to the question "If you were in an ephemeral relationship, which contraceptive method would you use?" were then examined in relation to gender, age and department of study. The χ^2 test findings indicated that gender [$\chi^2 (4) = 5.084$, Fisher's exact test $p = 0.283 > 0.05$] and department of study [$\chi^2 (7) = 0.795$, Fisher's exact test $p = 0.744 > 0.05$] are not substantially associated to the replies to

TABLE 4. Contraceptive methods used

What methods of contraception do you use?	Answers		% per sample
	N	% non-responses	
Male condom	178	65.9%	97.3%
Contraceptive pills	29	10.7%	15.8%
Contraceptive diaphragm	1	0.4%	0.5%
Vaginal sponge	1	0.4%	0.5%
Intrauterine device	2	0.7%	1.1%
Coitus interruptus	35	13.0%	19.1%
Calendar rhythm method	24	8.9%	13.1%
Total	270	100.0%	147.5%

TABLE 5. Double Entry Table "If you had an ephemeral relationship, which method of contraception would you use?" *Age

If you had an ephemeral relationship, which method of contraception would you use?		Age				Total
		18-20	21-25	26-30	30+	
Male condom	Frequency	44	121	12	1	178
	Expected frequency	42.3	120.3	14.4	1.0	178.0
Male condom	Frequency	0	3	1	0	4
	Expected frequency	1.0	2.7	.3	.0	4.0
Coitus interruptus	Frequency	0	0	1	0	1
	Expected frequency	.2	.7	.1	.0	1.0
Female condom	Frequency	0	0	1	0	1
	Expected frequency	.2	.7	.1	.0	1.0
None	Frequency	0	1	0	0	1
	Expected frequency	.2	.7	.1	.0	1.0
Total	Frequency	44	125	15	1	185
	Expected frequency	44.0	125.0	15.0	1.0	185.0

this question. Age, on the other hand, exhibited a statistically significant link with replies concerning contraceptive technique in an ephemeral relationship [$\chi^2 (12) = 26.041$, Fisher's exact test $p = 0.0380.05$]. According to the double-entry Table 5, younger ages (18-20 and 21-25) would prefer to utilize the male condom technique. \square

DISCUSSION

The purpose of this paper is to investigate and evaluate the knowledge and behavior of Greek University students regarding contraception.

In terms of participant demographics, the sample primarily consisted of girls aged 21 to 25, with nearly all of them having had a sexual relationship in the past. They were mostly university students unrelated to health sciences. This feature increases the representativeness of our sample to the overall youth population since the information acquired regarding contraception through university courses does not involve the entire youth population, but rather a subset of it.

Concerning young people's knowledge and attitudes toward contraceptive techniques, it ap-

pears that they are mostly aware of the male condom and the birth control pill, which is consistent with previous study findings (11, 19-20), though, in practice, the vast majority prefers to use the male condom (11, 21), and much less the contraceptive pill (11). Various studies indicate that views regarding condoms are related to actual condom use (22). The preference for male condoms may be attributed to their ease of use and accessibility. Additionally, the low usage of contraceptive pills among young people could be influenced by factors such as concerns about side effects or a lack of knowledge about proper usage.

Internet was the most popular source of contraceptive information in comparison to other sources of information, a result confirmed by other studies (23, 24). This was expected since the internet allows people to obtain information anonymously, avoiding possible taboo discussions about sex. The experiences of friends were the second most popular source of knowledge since it is more comfortable for young people to discuss sex and contraception with their friends than with their parents, which is consistent with another study (25). Health professionals' information (gynecologist, midwife) is placed fourth as a source of information, although it was shown that health professionals were only a source of information for some women, which may be attributed to women's easier access to the corresponding health professionals. Following that, information from the school appears through informative programs with a small difference. Finally, the media is placed last as a source of information, with only a small number of participants receiving information from that source.

Regarding the ideas given by the young people in the study's sample to enhance young people's sexual education, the majority responded that this can be accomplished through improved education, mostly in elementary and secondary school. In another study (11), young people report sexual education courses as very effective in setting the basis for 'healthy' sexual relations (77% boys, 71% girls).

According to Bruskeli (26), sexual education can be achieved through the development of a mechanism of correct and timely sexual education, which will primarily include informing young people through appropriate education materials at each level of education, based on the perspectives of the young people themselves. These ses-

sions are expected to be delivered by qualified health specialists rather than general educators, ensuring an easy transfer of knowledge alongside the age transition. Sexual health education is a critical component of promoting sexual health. Comprehensive sex education in schools is necessary to improve critical thinking, knowledge, and abilities (13). Guidelines (27) recommend that sexual health education be also age-appropriate and cover a wide range of sexual health topics. There is information about relationships, anatomy and physiology, contraception, sexually transmitted diseases, and sexual assault. The guidelines emphasize the need to provide accurate and evidence-based information in sexual health education, as well as a positive and respectful attitude to sexuality and sexual relationships.

Comprehensive sex education programs that not only teach young people about contraceptive alternatives but also address misunderstandings and promote safe sexual behavior are critical. Furthermore, giving simple access to inexpensive and discreet contraception options can empower

young people to make educated sexual health decisions and avoid unfavorable outcomes (28). □

CONCLUSION

Further research on young people is required to identify areas where educational interventions may be needed to improve their understanding of contraceptive methods. Understanding students' attitudes toward contraceptive usage can help inform the development of effective strategies to promote safe and responsible sexual behavior among this population. Additionally, it is important to assess the impact of comprehensive sex education programs in schools to determine their effectiveness in increasing knowledge and promoting healthy sexual practices among students. □

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