

## Greek Freshman Students' Sexual Education: Results from an online questionnaire

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### Abstract:

#### Introduction-Background:

Human sexuality and intrapersonal relationships are a particularly complex and multidimensional phenomenon in each and every individual's life, making early experiences and sex education especially important in the context of one's upbringing. Sexual education refers to the structured provision of knowledge around human relationships, sexuality and sexual behaviour and has been to some extent incorporated in the education platforms of many countries around the globe. Literature suggests that organized sexual education yields vital results in the way younger generations treat their body, build healthy relationships and explore their sexuality. There has been a paucity of data regarding experience and sources of information upon these issues among greek students.

#### Methods-Subjects:

In the current qualitative retrospective cohort study we aim to explore experiences, perceptions and sexual behaviour of Athenian universities' freshmen students, as collected through a personalized questionnaire. Survey distribution took place online via utilization of university websites and social media platforms. A total of two hundred and fifty-four freshmen students from universities in Athens were recruited in the current study.

#### Results:

Participating population sample consisted of two hundred and fifty-four (n=254) freshmen students with a female sex ratio of 61% and a mean age of  $18.7 \pm 2.3$  years, while 70% of the sample had already initiated their sexual life. First sexual information source for one third of the participants was the family environment, with internet and school tying in the second place and friends coming last. Eight out of ten participants would have liked more information provided to them, mainly by an expert on the subject or via the education system. Though males tend to have more partners, they also present riskier behaviour as shown by reduced contraceptive methods usage

#### Conclusion:

The majority of Greek freshmen students have not received official sexual education as part of their school curriculum, although they consider it necessary. The lack of structured sexual education provision reflects upon their beliefs in the contexts of sexual orientation, behaviours and healthy practices.

**Keywords:** sexual education; sexuality; sexual behaviour; freshmen students; university; athens.

### Introduction:

Subjects revolving around intimate human intrapersonal relationships and sexuality are still being considered a taboo topic, especially amongst more conservative societies or underrepresented groups [1,2]. Furthermore, in many societal settings where religion represents a major cultural aspect, before-marriage relations and sexual interaction of any other kind belong to a forbidden realm, with healthy sexual practice information provision as well as sexual and reproductive health service use severely lacking [3,4]. Until recently, efforts for offering advice to adolescents on how to build complete, healthy sexual relationships fell upon the parents and, even today, are considered a part of family life education [5]. The introduction of more progressive educational methods in a late 19<sup>th</sup> century movement led to the appearance of a class under the name 'social hygiene' in Northern American schools, what can be identified



as the precursor of modern sexual education classes [6].

The process of making informed decisions around human relationships, sexual orientation and behaviour is an essential part of adolescents' upbringing, making an all-around approach to relevant matters an inescapable necessity. Sexual education covering fields such as human anatomy, human reproduction and reproductive health, legal consent and reproductive rights, safe sexual practice, birth control and sexually transmitted infections (STIs), as well as gender and sex differentiation is denoted under the term comprehensive sexual education. Such practices not only provide adolescents with the necessary valid information but, concurrently, remove barriers at a physical and emotional level in order for them to enjoy humane connection [7,8].

A different factor that made the introduction of official sexual education of utmost importance stems for the previous decades' outbreak of sexually transmitted infections, especially the surge in Human Immunodeficiency (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS). In most affected nations worldwide where HIV infection arises at epidemic levels, including Kenya, Tanzania and Uganda, sexual education is regarded by healthcare advocates and academics as a viable public health strategy to combat the phenomenon [9,10]. Without a doubt, though, application of various techniques throughout the last decades shows that well-trained professionals offering a holistic and realistic approach to the matter yield the best results, as long as individual needs are covered in terms of varieties in age, religion, cultural and societal settings.

### Sexual Education Around the World:

According to the World Health Organization (WHO), there exists no pattern regarding which countries worldwide offer compulsory sexual education as part of school curricula, with countries pertaining in the same geographical and socioeconomic groups presenting differences [11].

Europe is undoubtedly the continent along which the bigger differences among countries are observed. Romania does not include reproductive health education as a compulsory topic for the curriculum of different educational levels. Same rule applies for most of the countries of Southern Europe, which base their official education on laws and decrees from previous decades [12]. On the contrary, countries with more advanced educational systems like England, Netherlands, France and Wales have for decades implemented programs in schools based on policies for sexual education; openness about sex, society involvement, privacy and access to contraception [13].

Asia also presents wide variations among its countries when it comes to applying sexual education tactics. Nepal, Bangladesh, Myanmar and Pakistan offer no programs for their population whatsoever, while in Malaysia sex education was introduced in public schools in 2011, but this only happened after a long debate among conservative groups [14]. Indonesia still bases sexual education and sexual health on somewhat older beliefs and traditions. It is worth noting the existence of a presidential decree that condemns cohabitation and considers premarital sexual activities unethical or even illegal, leading sometimes to racism and discrimination against people choosing to go this way [15].

China is becoming more and more liberal in various fields of everyday life and this is apparent on family planning, social and sexual education. The national family planning program may give access to affordable contraception, but at the same time those services are mainly used by adults and rarely by students. Unmarried young people in China still live with the fear of stigma if they seek counselling from family planning workers [16]. Turkey also paints a very complex picture, as the large population combined with the cultural mosaic and the difference in attitudes of people from rural and urban areas create a hard task when it comes to implementing sexual education practices. Virginity is an important characteristic of a girl and negative consequences of sexual experiences reflect almost always on girls, leading to their marginalization. It seems that premarital sex demonization and gender inequity are still strong in the neighbouring country, although in some central areas like the capital and Istanbul, where tourism grows fast, traditional patterns show some change towards more liberal sexual attitudes [17].

In Africa, for lack of official sexual education by the state, sexual education lies upon the efforts of Non-Governmental Organizations and private parties. Local authorities in Uganda have been trying years to educate the general population more and more about safe sexual attitudes. The result is a very high rate in knowledge of transmitted infections, HIV/AIDS and their prevention/treatment among students [18]. On the other hand, in Madagascar, results among students paint a different image as the prevalence of Human Immunodeficiency Virus rose between 2000 and 2003 from 0.15% to 0.95%, with students representing almost 2% of the population living with the virus [19].

In USA sexual education is compulsory in schools since 1940, although up until now there has been no official program that covers the whole country. Every school is responsible for developing its own program and curriculum concerning sexual education, but it is important to note that most states offer official guidelines upon which schools can create their projects [20,21]. A 2016 publication from the United States tried to measure the penetration of sexual education among female and male school students in various states of the country, concluding a significant decline in receipt of education regarding sexually transmitted infections, HIV/AIDS, healthy relationships and other topics, especially for females [22].

Australia, with an education system often praised as one of the best in the world, offers widely accessible safe and effective family planning and sexual education programs [23].

### Sexual Education in Greece:

According to the report 'Sexuality Education in Europe', school-based sexuality education in Greece began in 1980 with a pilot programme, carried out by the Ministries of Health and Education. Although these two ministries bear responsibility for devising the sexuality education programs to be incorporated in schools, there has not been a specific course taught or a comprehensive approach on the subject in the last years [24].

In 1999, the Ministry of Education decided for the production and use of educational material on health education and health promotion, and the relative project for 15–18-year-old pupils was assigned to the 2nd Gynaecology-Obstetrics Clinic of the



University of Athens, in collaboration with the Greek Sexology Institute. In 2001, material was delivered in the forms of a school book and a CD-ROM. The book was a quite structured approach, including chapters for bodily functions, sexuality, sex and gender [25]. In 2007, a publicly well-known sexologist was appointed by the Ministry of Education to be in charge of the chapter for “Sexuality Education-Intersexual Relationships” of a programme called “Social School” which was at the time run by the Ministry. The sexologist made an effort to create a network of educators, teachers and psychologists to convey some of the important sexuality topics to the adolescent children and their parents as well [26].

According to a 2011 publication from the Ministry of Education on the Greek high school curriculum, which are the latest available, pupils of the second-last and last high school class (aged 17-18 years old) can choose a non-obligatory class named “Family Orientation/Education” with duration of 4 hours a week. It remains unknown how many school units actually have trained personnel to teach this class and are capable of offering the class. It is important to note here that non-obligatory classes in the Greek school are offered rather more based on the availability of teachers and less in terms of demand from the pupils [27].

In a review from 2010 among Greek students about sources of information about sexual education, “friends and classmates” ranked first followed by “mass media and magazines” in second place, “family members and relatives” in third place, “school” ranked fourth in importance, and “other sources” (self-experimentation, books, partners) ranked last. It becomes apparent that schools do not even begin to cover the need of Greek students for sexuality education [28].

### **Aim and Objectives of the Study:**

#### **Aim:**

To explore the experiences, perceptions and attitudes of freshmen university students in the city of Athens, concerning their sexual education knowledge and identify the strengths, weaknesses and barriers of the sexual education system.

#### **Objectives:**

1. Recognize the main sources of sexual education in Athens
2. Explore the role of family, culture, tradition, religion and formal education when it comes to shaping students’ opinions on sexuality
3. Point out which demographic characteristics play the biggest role when it comes to defining sexual behaviour
4. Identify some of these characteristics as the major determinants of sexual education provision and sexual behaviour

### **Study Methodology:**

#### **Research design:**

For the purpose of this study, we proposed the realization of a qualitative research protocol that is exploratory, descriptive and contextual in order to gain a rich understanding of the phenomenon as it exists in the natural setting. Data for the research were collected through structured questionnaires, filled by students

individually and privately.

#### **Study population:**

Freshmen students from higher educational Institutes of Athens were included as they embody the eligible population of sexual education receivers. The online population gave us the opportunity for a larger sample and therefore more accurate perception of ideas. Participating students were born in the digital age and are generally described as digital citizens. Social platforms are broadly used by students as a social technology tool, which helps them intergrade into university life, achieving an accepted social status at the beginning of their university life [29,30]. Meanwhile, they also offer support in the learning process through communication and interaction; therefore, they was chosen to be our main distribution platform for our online questionnaire.

The questionnaire was created based on the guidelines of WHO for performing sexual education surveys and on the conceptual framework of planned behaviour. The questionnaire consisted of a short description of our study objectives, followed by demographics that allowed us to weight our sample, while the main part consisted of approximately twenty closed-type questions. The development of the questionnaire was originally in English, following the back-to-back translation method to Greek by a bilingual Greek-English origin native speaker. A pilot trial was performed on students bearing the same characteristics as our sample but studying in the city of Patras, Greece [31]. After conducting the pilot study, we had to make the following changes:

- Point the importance of our closed age group and educational status
- Conversion of many open type questions into closed ones for better analysis
- Reduction of questions’ number for quicker participation

#### **Data management and statistical analysis:**

The data from the online questionnaires was gathered, arranged in the proper form and transferred into the statistical analysis platform ‘SPSS Statistics’ v. 26.0 (IBM, Armonk, USA).

#### **Limitations of the study:**

The main restriction of our research is the sensitivity of the topic we aim to explore. Due to that and the accessibility to the large population group of students, we decided to conduct the research online, based on the idea that almost all students are active on social media and the online groups of their departments. The attempted access only to tertiary education students with access to the Internet can be also described as a limitation. Finally, generalisations cannot be made for the whole population of Greek students, even if the capital houses the vast majority of university departments.

#### **Results:**

##### **Demographics:**

The recruited population sample consisted of two hundred and fifty-four (n=254) freshmen students with a female sex ratio of 61% and a mean age of  $18.7 \pm 2.3$  years. 231 students (91%) were of Greek origin and 178 (70%) registered themselves as greek



orthodox. Regarding sexuality, 85% of the students registered as heterosexual, 5% as homosexual, 9% as bisexual and 1% as unspecified or other, while 70% of the sample had already initiated their sexual life. Full demographics for the participating sample can be found in Table 1.

Demographics Variables	Sample Representation
Age (years)	18.7 ± 2.3
Sex – nr. (%)	
Male	99 (39.0%)
Female	155 (61.0%)
Country of Birth – nr. (%)	
Greece	239 (94.1%)
Other	15 (5.9%)
Yearly Family Income – euros	
<5,000	15 (5.9%)
5,000-10,000	39 (15.4%)
10,000-20,000	45 (17.7%)
>20,000	84 (33.1%)
Do not know	71 (28.0%)
Religion – nr. (%)	
Orthodox	178 (70.1%)
Atheist	61 (24.0%)
Other	15 (5.9%)
Spoken Language in	
Greek	248 (97.6%)
Other	6 (2.4%)
Living Status – nr. (%)	
With family	143 (56.3%)
Alone	91 (35.8%)
With friends/partner/roommate	20 (7.9%)
Working Status – nr. (%)	
Employed	58 (22.8%)
Without occupation	196 (77.2%)
Sexual Orientation – nr. (%)	
Heterosexual	216 (85.0%)
Homosexual	13 (5.1%)
Bisexual	23 (9.1%)
Other/Do not know	2 (0.8%)
Sexual Life Initiation – nr. (%)	
Yes	178 (70.1%)
No	76 (29.9%)

**Table 1:** Demographic data of the participating population.

### Sexual Life Data and Information Sources:

Regarding the sexual life and information sources of the participating population, full data can be found in Table 2. Sexual initiation age for those that had already had at least one sexual intercourse was 17.0 ± 1.4 years of age, with the number of sexual partners being 2.4 ± 0.7 up to the date of the survey completion. Among those who had yet to participate in sexual intercourse, approximately half (55.1%) were not given the chance yet, and

every fourth student (26.0%) did not feel ready, while another 9.8% characterized premarital intimacy as unethical and 9.1% stated other reasons. First sexual information source for 35.8% of the participants was the family environment, with internet and school (25.2%) tying in the second place and friends coming last at 13.8%. Almost eight out of ten participants (78.0%) would have liked more information provided to them, mainly by an expert on the subject or via the education system. Among the 178 people who had already initiated their sexual life, the minority (40.4%) recalls using a contraceptive method on their first intercourse, with most used ones being condoms (78.1%). Although few participants actually contracted an STI so far (5.1%), only 38.5% of them admits to having sought medical help for the infection.

Sexual Life Variables	
Sexual initiation age (years)	17.0 ± 1.4
Number of sexual partners – nr.	2.4 ± 0.7
Reasons for no initiation of sexual	
‘I did not have the chance yet’	140 (55.1%)
‘I do not feel ready yet’	66 (26.0%)
‘Premarital sex is morally	25 (9.8%)
Other reason	23 (9.1%)
First information source – nr.	
Family	91 (35.8%)
Internet	64 (25.2%)
School	64 (25.2%)
Friends	35 (13.8%)
Belief that more info is necessary	198 (78.0%)
Preferred source – nr. (%)	
Expert on the subject	152 (59.8%)
School	89 (35.0%)
Other	13 (5.1%)
Contraceptive use on first	72 (40.4%)
Means of contraception on first	
Condom	139 (78.1%)
Coitus Interruptus	7 (3.9%)
Other	32 (18.0%)
STI contraction – nr. (%)	13 (5.1%)
Sought medical help after STI	
Yes	5 (38.5%)
No	8 (61.5%)

**Table 2:** Sexual life characteristics of the participating population.

### Comparison between male and female students:

Independent sample student's t-testing was performed between male and female students for determination of possible differences regarding important topics of our questionnaire. Selected results are discussed below and relevant data is depicted in Table 3. Statistically important differences were found in sexual life initiation (p-value 0.032), number of sexual partners up to survey completion (p-value 0.013), as well as contraceptive use on first intercourse (p-value 0.005). On the other hand, no differences were noted between sexes for sexual initiation age (p-value 0.93) and STI contraction (p-value 0.329). The data suggests that more male



students have already had sexual intercourse although among students who have already initiated their sexual life, no difference in initiation age exists. Furthermore, males tend to have more partners but, at the same time, present riskier behaviour as shown by reduced contraceptive methods usage, though this is not mirrored upon STI contraction, where percentages do not differ significantly.

Independent Variable	Sex		P-value
	Male	Female	
Sexual life initiation – (%)	Male 77.2%	Female 60.8%	<b>0.032</b>
Sexual partners number	Male 2.6 ± 0.9	Female 2.3 ± 0.6	<b>0.013</b>
Contraceptive use on first intercourse – (%)	Male 37.6%	Female 47.4%	<b>0.005</b>
Sexual initiation age (years)	Male 16.8 ± 2.1	Female 17.4 ± 2.4	0.93
STI Contraction (%)	Male 5.5%	Female 4.9%	0.329

**Table 3:** Independent sample t-test for male and female students.

**Discussion:**

In the current study protocol, we used an original online questionnaire, consisting of both open- and closed-type questions, improvised by the authors, in order to assess sources of information as well as beliefs and behaviours around sexual practice of freshmen students in the capital city of Greece. Since available literature and official data revolving around sexual education within the greek borders are extremely scarce, we aimed to pinpoint areas in which young adults’ knowledge appears insufficient, in order for them to be better implemented as part of future official sexual education practices. Recent literature reviews suggest that curriculum-based interventions yield efficient results, especially when incorporating the use of modern technologies [32,33].

First and foremost, sexual orientation and age of sexual initiation does not differ significantly between the sexes, with males having more partners throughout their early years of sexual life, while at the same time presenting riskier sexual behaviours, as shown by the rarer use of contraception. A balance exists in terms of general knowledge around sexual intercourse, with females appearing more knowledgeable in topics around sexually transmitted infections. One of the few recent studies on the topic also found young people of 18-30 years of age to be very informed on the subject of well-known STIs [34]. Since reports about sexual violence in the country are increasing, we consider the matters of consent and sexual safety of utmost significance in future sexual education endeavours [35,36].

Secondly, as expected by the lack of not only scientific research but also official reporting, penetration of official sexual education within the national education system is extremely low. Only one fourth of asked students received their first piece of information on relevant subjects from an official school source, while family and internet were the lead providers, though students would have preferred for their educators to carry more expertise. Of note, both students with or without an active sex life opted for more formal

sexual education programmes, with an approximate eight out of ten students expressing a wish for more school hours devoted to the subject. Let it be pointed out here, that many European countries, including Greece, do not have official sexual education courses available even at the level of official medical training [37]. Regarding sexual practice, only every third student who had already initiated their sex life used a contraceptive method on their first sexual encounter, with condoms being the most prevalent method. Although few students out of our sample actually contracted a sexually transmitted infection, more than half of them never sought medical help. Another recent study estimated a moderate knowledge around Human Papillomavirus (HPV) and its vaccine [38]. Taken together, these results appear quite alarming, especially given the fact that older reports estimate use of contraception at higher levels [39]. Of note, a nationwide survey of almost 2,000 individuals showed that while sexual health and STIs do not make it in the top-three public health concerns, they are of great importance in younger generations, thus making correct information provision vital for these ages [40].

**Conclusion:**

While state efforts for implementation of structured official sexual education programmes currently remain scarce, some level of provision of information around the subject exists among Greek students, with home and internet being among the most used sources. As individuals nowadays begin to explore their sexuality and engage in sexual practice at younger ages, the need for organized sexual education appears greater than ever. Furthermore, young pupils, adolescents and students deserve to be in a position to make informed decisions when it comes to exploring their sexuality, participating in and enjoying sexual intercourse, and building healthy intrapersonal relationships. We consider the topic of vital importance when it comes to planning future school curricula and urge state authorities engaged in such planning to take action.

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**Ethical Approval and Participant Consent:**

Since the questionnaire was anonymous, no ethical approval was sought for the data to be made public. Participants in the study agreed to the statistical analysis as well as publication of their responses by filling out a relevant field in the questionnaire. The specific field was placed in the beginning of the questionnaire.

**Conflict of Interest:**

The authors declare no conflict of interest for the present study.

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**References:**

1. Leung H, Shek DTL, Leung E, Shek EYW. Development of contextually-relevant sexuality education: Lessons from a



- comprehensive review of adolescent sexuality education across cultures. *Int J Environ Res Public Health* [Internet]. 2019;16(4):621.
2. Bungener SL, Post L, Berends I, Steensma TD, de Vries ALC, Popma A. Talking About Sexuality With Youth: A Taboo in Psychiatry? *J Sex Med* [Internet]. 2022;19(3):421–9.
  3. Ben Thabet J, Charfeddine F, Charfi N, Baati I, Zouari L, Zouari N, et al. Sexualité de la femme tunisienne : entre le religieux et le culturel. *Encephale* [Internet]. 2015;41(2):144–50.
  4. Hall KS, Moreau C, Trussell J. Lower use of sexual and reproductive health services among women with frequent religious participation, regardless of sexual experience. *J Womens Health (Larchmt)* [Internet]. 2012;21(7):739–47.
  5. Russell S, Mallory A, Bishop M, Dorri A. Innovation and integration of sexuality in family life education. *Fam Relat* [Internet]. 2020;69(3):595–613.
  6. Tupper KW. Sex, drugs and the honour roll: the perennial challenges of addressing moral purity issues in schools. *Crit Public Health* [Internet]. 2014;24(2):115–31.
  7. International technical guidance on sexuality education [Internet]. United Nations Population Fund. [cited 2022 Dec 29]. <https://www.unfpa.org/publications/international-technical-guidance-sexuality-education>
  8. Marques SS, Constantine NA, Goldfarb ES, Mauldon J. Sexuality Education. In: *International Encyclopedia of the Social & Behavioral Sciences*. Elsevier; 2015. p. 825–32.
  9. Sport and Culture and the Ministry of Higher Education, Training and Employment Creation of Namibia. *National Policy on HIV/AIDS for the Education Sector*. Solitaire Press; 2003.
  10. Wikipedia contributors. HIV/AIDS in Africa [Internet]. Wikipedia, The Free Encyclopedia. 2022. Available from: [https://en.wikipedia.org/w/index.php?title=HIV/AIDS\\_in\\_Africa&oldid=1129085500](https://en.wikipedia.org/w/index.php?title=HIV/AIDS_in_Africa&oldid=1129085500)
  11. The journey towards comprehensive sexuality education: global status report [Internet]. Who.int. [cited 2022 Dec 29].
  12. Blidaru IE, Furau G, Socolov D. Female Romanian university students' attitudes and perceptions about contraception and motherhood. *Eur J Contracept Reprod Health Care* [Internet]. 2016;21(1):39–48.
  13. Reis M, Ramiro L, Matos MG de, Diniz JA. The effects of sex education in promoting sexual and reproductive health in Portuguese university students. *Procedia Soc Behav Sci* [Internet]. 2011;29:477–85.
  14. Wong LP. An exploration of knowledge, attitudes and behaviours of young multiethnic Muslim-majority society in Malaysia in relation to reproductive and premarital sexual practices. *BMC Public Health* [Internet]. 2012;12(1):865.
  15. Hald GM, Mulya TW. Pornography consumption and non-marital sexual behaviour in a sample of young Indonesian university students. *Cult Health Sex* [Internet]. 2013;15(8):981–96.
  16. Ma Q, Ono-Kihara M, Cong L, Xu G, Pan X, Zamani S, et al. Early initiation of sexual activity: a risk factor for sexually transmitted diseases, HIV infection, and unwanted pregnancy among university students in China. *BMC Public Health* [Internet]. 2009;9(1):111.
  17. Aşci O, Gökdemir F, Kanbay Y. Examination of sexual attitudes of students in a university in Turkey. *Int J Health Sci Res*. 2016;6(6):245–53.
  18. Nsubuga H, Sekandi JN, Sempeera H, Makumbi FE. Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey. *BMC Womens Health* [Internet]. 2016;16(1):6.
  19. Hoque ME, Ntsipe T, Mokgatle-Nthabu M. Awareness and practices of contraceptive use among university students in Botswana. *SAHARA J* [Internet]. 2013;10(2):83–8.
  20. Adefuye AS, Abiona TC, Balogun JA, Lukobo-Durrell M. HIV sexual risk behaviors and perception of risk among college students: implications for planning interventions. *BMC Public Health* [Internet]. 2009;9(1):281.
  21. Buhi ER, Marhefka SL, Hoban MT. The State of the union: sexual health disparities in a national sample of US college students. *J Am Coll Health* [Internet]. 2010;58(4):337–46.
  22. Lindberg LD, Maddow-Zimet I, Boonstra H. Changes in adolescents' receipt of sex education, 2006–2013. *J Adolesc Health* [Internet]. 2016;58(6):621–7.
  23. Leung J, Pirovich R, Woods C, de Costa C. Knowledge of contraceptive methods and services among tertiary students in far North Queensland. *Aust N Z J Obstet Gynaecol* [Internet]. 2014;54(4):386–9.
  24. Parker R, Wellings K, Lazarus JV. Sexuality education in Europe: an overview of current policies. *Sex Educ* [Internet]. 2009;9(3):227–42.
  25. Gkatzamanis K, Papathanasiou Z. *Sexual Education - Intrasexual relationships*. Athens: Ministry of National Education and Religious Affairs. 2000.
  26. Σεξουαλική Διαπαιδαγώγηση: 200 εκπαιδευτές μιλούν μαζί μου γι αυτό. | Θάνος Ασκητής - Ινστιτούτο Ψυχικής & Σεξουαλικής Υγείας [Internet]. Askitis.gr. [cited 2022 Dec 29].
  27. Ministry of Education and Culture of Greece. Athens: Lithostar Ltd; 2011 p. Selection of Classes in High School.
  28. Fakinos M. Sexuality education in Greek schools: Student experience and recommendations. *Electronic Journal of Human Sexuality*. 2010;
  29. Sánchez A, Cortijo R, Javed V. Students' perceptions of Facebook for academic purposes. *Computers & Education*. 2014;70:138–49.
  30. Yu AY, Tian SW, Vogel D, Chi-Wai Kwok R. Can learning be virtually boosted? An investigation of online social networking impacts. *Comput Educ* [Internet]. 2010;55(4):1494–503.
  31. Wilentz G. The importance of European standards and a human rights-based approach in strengthening the implementation of sexuality education in Ireland. *Sex Educ* [Internet]. 2016;16(4):439–45.
  32. Lameiras-Fernández M, Martínez-Román R, Carrera-Fernández MV, Rodríguez-Castro Y. Sex education in the spotlight: What is working? Systematic review. *Int J Environ Res Public Health* [Internet]. 2021;18(5):2555.
  33. Rabbite M. Sex education in school, are gender and sexual minority youth included?: A decade in review. *Am J Sex Educ* [Internet]. 2020;15(4):530–42.
  34. Voyiatzaki C, Venetikou MS, Papageorgiou E, Anthouli-Anagnostopoulou F, Simitzis P, Chaniotis DI, et al. Awareness, knowledge and risky behaviors of sexually transmitted diseases among young people in Greece. *Int J Environ Res Public Health* [Internet]. 2021;18(19):10022.
  35. Chroni SA, Kavoura A. From silence to speaking up about



- sexual violence in Greece: Olympic journeys in a culture that neglects safety. *Front Psychol* [Internet]. 2022;13:862450.
36. Sakellari E, Berglund M, Santala E, Bacatum CMJ, Sousa JEXF, Aarnio H, et al. The perceptions of sexual harassment among adolescents of four European countries. *Children (Basel)* [Internet]. 2022;9(10):1551.
37. Kristufkova A, Pinto Da Costa M, Mintziori G, Vásquez JL, Aabakke AJM, Fode M. Sexual Health During Postgraduate Training-European Survey Across Medical Specialties. *Sex Med* [Internet]. 2018;6(3):255–62.
38. Sidiropoulou M, Gerogianni G, Kourti FE, Pappa D, Zartaloudi A, Koutelekos I, et al. Perceptions, knowledge and attitudes among young adults about prevention of HPV infection and immunization. *Healthcare (Basel)* [Internet]. 2022;10(9):1721.
39. Patseadou M, Galli-Tsinopoulou A, Goulis DG, Arvanitidou M. Factors associated with the onset of sexual activity among Greek high school students. *Eur J Contracept Reprod Health Care* [Internet]. 2010;15(5):357–66.
40. Tzortzi A, Kapetanstrataki M, Rachiotis G, Evangelopoulou V, Leventou E, Behrakis P. Perceived importance of public health risks in Greece: A nationwide survey of the adult population. *Int J Environ Res Public Health* [Internet]. 2021;18(16):8256.