

## He had always wanted to ask an andrologist but had never done so

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### Abstract

**AIM:** To understand and analyze what young Italian males attending high school would like to ask andrologists but do not know how to or do not have the courage to do so.

**METHODS:** As part of our "Androlife" campaign, we invited 1565 students attending the last year of high school to participate in our research. Firstly, they attended a lesson on general and andrological health and then, on a voluntary basis, they responded to a survey and were subjected to a preventive andrological visit.

**RESULTS:** The data analysis showed that the main topics in which young people are interested are: sexual activity and sexuality, sexually transmitted diseases, andrological health and fertility, and lifestyle.

**CONCLUSION:** This study highlights that young people are very interested in sexual health issues and that they have specific needs and interests with regard to sexual health information. Public education campaigns such as Androlife should be supported and further improved on the basis of the advice received by young participants. Sexual and reproductive health education

targeting adolescents and young adults represent the basis both for wellness and for fertility preservation, and thus benefits of increased support to educational campaigns would be apparent not only in terms of individual health but also in terms of cost reduction in public spending.

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**Key words:** Men's health; Adolescence; Prevention; Education; Sexual health; Andrologist

**Core tip:** This article considers the questions young people are most frequently asking. It can be considered an innovative paper because in Italy and other countries many of these topics are considered taboo. Moreover, in this article we underline that the benefits of increased support for educational campaigns would be apparent not only in terms of individual health but also in terms of cost reduction in public spending.

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### INTRODUCTION

Sexual health, sexual disorders and everything related to sex have often been considered a taboo topic in Italy for many reasons, including cultural, social and religious factors. Furthermore, while the specialist in gynecology is now both well known and readily accepted, the specialist in andrology is not yet fully established among the public. However, both in Italy and all over the world, societies are becoming increasingly aware that men as well as women need sexual health care services, while at the same time services that are available are underutilized<sup>[1]</sup>.

The absence of a referring specialist for men adds to the lack of health education and prevention programs with the result that young people, particularly males, often are not knowledgeable of diseases and risk factors related to sexual health. This situation inevitably leads to difficulties in implementing preventive measures. Moreover, the difficulty that young people encounter in talking to parents and seeking medical attention for sex-related problems motivates adolescents to attempt to solve problems by using the web or by relying on word of mouth and often on urban myths. Consequently, if the user is unable to select and identify the correct information there exists a major risk that not only problems are seldom solved, but also that they are often aggravated<sup>[2]</sup>. However, the tendency to high-risk behavior and to low utilization of sexual health services is not only characteristic of young males but also extends to adult men, and it may contribute to lower male life expectancy<sup>[3]</sup>. Some authors have already taken into account social, behavioral and psychosocial factors associated with sexual activity among young adolescents in order to create effective and enforceable prevention programs<sup>[4-6]</sup>, and in many countries these programs have already been activated<sup>[7-9]</sup>. In Italy, male sexual health has received growing attention in recent years and a previous study on young men has identified a number of risk factors for adolescents, highlighting a strong influence of body mass index (BMI) on skeletal proportions and penis length and identifying a large proportion of subjects with testicular hypotrophy at risk of future fertility problems<sup>[10]</sup>. A strong impetus to andrological health prevention was given by the campaign “Androlife”. This was a project aimed mainly at young people with the aim of providing information, promoting prevention and collecting data. In this project, an anonymous questionnaire was administered to young participants selected among high school students. This paper focuses on just one section of this survey. In particular, we wanted to understand and analyze what young Italian males attending high school would like to ask andrologists but do not know how to or do not have the courage to do so.

## MATERIALS AND METHODS

### **Androlife campaign**

Androlife is a project that has the following objectives: (1) to sensitize and to inform young people on general and andrological health; (2) to promote primary prevention of diseases, especially concerning the male reproductive system; (3) to collect information on the habits, lifestyles, general and sexual health status of young people through an anonymous questionnaire; and (4) to highlight pathological conditions detectable by a free medical examination performed only in volunteers.

To achieve these objectives the “Androlife team” organized social and cultural events, free clinics dedicated to andrological prevention, and interventions by specialists in high schools for students in their final year in order to inform, educate and provide a free medical preventive evaluation for those who wished it.

### **Patients and setting**

A total of 1565 students attending the final year of high school in 2012-2013 in the Veneto Region of North-East Italy were enrolled in the study. All students, aged 18-19 years, attended an informative session held by a physician of the University of Padua. Of all participants, 1492 agreed to complete an anonymous survey. On a voluntary basis, 1083 participants then elected to undergo an on-site clinical examination. The study was approved by the local Ethics Committee with the protocol number 2208P.

### **Information session**

The sessions focused on 5 main topics: sexually transmitted diseases, andrological diseases, lifestyle, drugs and alcohol and cybersex. For each topic, the specialist explained the risk factors, how to prevent them, how to take care of one's own health, the forms of self examination such as testicular self-examination, and possible solutions to existing problems. Students could also ask questions in public and/or ask further information in private on the topics covered.

### **Survey**

The anonymous survey included a general family history and a number of questions on lifestyle, with particular attention to smoking, diet, physical activity and the use and, or, abuse of drugs. Moreover, a large section focused on sexual activity, such as number of partners, sexual orientation, use of condoms, and use and/or abuse of pornography on the web. Finally, the last section of the survey contained an empty space where each participant was invited to write questions they might have wanted to ask an andrologist but had never done so. This section represented the topic of this paper.

### **Visit**

On-site clinical examination was aimed at collecting anthropometric and penile measurements that included: height, weight, BMI, waist circumference, arm span, pubis-to-floor and crown-to-pubis length, penis length, penis circumference and testicular examination.

## RESULTS

Among 1492 subjects who completed the survey, 1184 provided a question that they had always wanted to ask a specialist but had never done so. Of these, 793 (67%) claimed to already know the word andrologist, but only 274 (23.1%) had already undergone an andrological check. After collecting all the questions, we clustered them into four main groups, taking into account the frequency with which questions were asked (Table 1): 475 (40.2%) adolescents had asked questions about sexuality and sexual activity, 242 (20.4%) about sexually transmitted diseases, 216 (18.2%) about andrological health and fertility, and 142 (12%) about lifestyle. A further 109 (9.2%) questions did not fit into one of these groups and were combined into a generic group. The first 3 clusters were further divided into subgroups. The first cluster on

**Table 1** The main and most frequent questions of 1184 young Italian men *n* (%)

Sexuality and sexual activity 475 (40.2)	Masturbation 223 (46.9)	Is masturbation normal?
		Can a frequent masturbation cause damage to the penis and/or to the body?
		Can masturbation be useful before a sexual intercourse?
		Can masturbation have negative effects on sports performance?
	Sexual intercourses 199 (41.9)	Can masturbation reduce the risk of prostate cancer?
		Which are the safest contraceptive methods?
		The oral sex cause oral cancer?
		Can anal sex be risky?
	Drugs for sex 53 (11.2)	What is the right age for the first sexual intercourse?
		Are there effective drugs to treat premature ejaculation?
At what age can you use phosphodiesterase inhibitors? <sup>1</sup>		
Are there drugs to help penis growth?		
Sexually transmitted diseases 242 (20.4)	HIV 95 (39.3)	Are web products, to improve sexual performance, effective and safe?
		Is HIV treatable?
		Is a single sexual intercourse, with an HIV positive subject, enough to acquire the infection?
		Is HIV transmissible through masturbation?
	HPV 79 (32.6)	Why there is no cure for HIV?
		Is HPV a virus that can also affect men?
		How is HPV transmitted?
		Is it possible, and how, heal from HPV infection?
	Generic questions 68 (28.1)	Is the birth control pill effective against STD?
		Is sexual intercourse the only way of transmission of STD?
What should you do in case of STD?		
Can those who have never had sexual intercourse have a STD?		
Andrological health and fertility 216 (18.2)	Varicocele 91 (42.1)	How can I know if I have a varicocele?
		Which are the effects of varicocele?
		Is always necessary to operate in case of varicocele?
		After the operation, may varicocele recur?
	Testicular tumours 80 (37.1)	Which are the symptoms of testicular cancer?
		Is it possible to prevent testicular cancer?
		Is it possible to heal from testicular cancer?
		Does testicular cancer always cause infertility?
	Generic questions 45 (20.8)	Does andropause exist? What age?
		Which are the consequences of testicular trauma?
Is short frenulum dangerous?		
Can you return fertile after vasectomy?		
Lifestyle 142 (12)	Can illicit drugs and alcohol interfere with sexual health?	
	Does physical activity improve andrological health?	
	Is the use of androgens helpful or harmful to the andrological health?	
Generic questions 109 (9.2)	Can virginity be established for a man?	
	Can web pornography cause addiction?	
	Has the partner a role in sexual desire?	
	To keep your cell phone in your pocket can damage fertility and or sexuality?	
	How can an issue of sexual orientation be addressed?	

<sup>1</sup>Students did not know the active ingredient of these drugs and, in the questions, they used the most famous trade names. HIV: Human immunodeficiency virus; STD: Sexually transmitted disease; HPV: Human papillomavirus virus.

sexuality and sexual activity was divided into masturbation, sexual intercourse and drug use for sex; the sexually transmitted diseases group into human immunodeficiency virus, human papillomavirus virus and into a third generic group; andrological health and fertility was divided into varicocele, testicular tumors, and a final generic one. Table 1 shows the main and most frequent questions that young men provided in the survey, while in Table 2 we have given short answers to the received questions.

## DISCUSSION

### Sexuality and sexual activity

The issue of sexuality is still a difficult topic to discuss with young people, and too little is being done to provide correct information to adolescents who are just starting to explore their sexuality. In this context, the Androlife

campaign intended to be helpful to the largest number of young men not only in giving information but also in facilitating the promotion of health, and in particular andrological health. This campaign, aimed at high school students, highlighted, on the one hand, much interest and active participation by adolescents in the topic, and, on the other hand, a fundamental difficulty in dealing with these issues and a fundamental lack of knowledge of many basic facts on the part of the participants. The worst consequences are a lack of preventative measures, and a reliance on the web for addressing problems, with the result that such problems are not always approached properly, nor are they effectively solved. In this paper we have considered the main topics on which young men would like to receive information or clarification but do not know how to or where to find it. In particular, the largest number of questions was related to masturba-

**Table 2** Answers to the most frequent questions of young Italian men

Sexuality and sexual activity	Yes, masturbation is normal
	Masturbation doesn't cause damage to the penis and/or to the body
	There is no evidence that masturbation is useful before sexual intercourse
	There is no evidence that masturbation has negative effects on sports performance
	It has not been demonstrated that masturbation reduces the risk of prostate cancer
	The safest considered contraceptives are condoms, the contraceptive pill and intrauterine devices
	The risk of cancer caused by oral sex is related to the transmission of HPV
	Anal sex can be risky due to the transmission of STD
	There isn't a "right age" for the first sexual intercourse because everyone reaches maturity at different ages
	There are effective drugs to treat premature ejaculation, but not all cases require drug treatment
Sexually transmitted diseases	The clinic, not the age determine the use of phosphodiesterase inhibitors
	Drugs are useful for the growth of the genitals only in the case of some diseases ( <i>e.g.</i> , certain hormone deficiencies)
	Is not safe, and often even effective, to rely on the web to improve sexual performance
	HIV is treatable but not curable
	Even a single sexual intercourse, with an HIV positive subject, is enough to acquire the infection
	HIV is transmissible through masturbation only if the biological produced fluids come into contact with wounds
	The complexity of the virus causes the current treatment options to treat but not to heal from infection by HIV
	Yes, HPV can also affect men
	HPV is transmitted through all forms of sexual activity
	It is possible heal from HPV infection reducing risk factors (smoking, unprotected sex, low hygiene...)
Andrological health and fertility	The birth control pill is absolutely not effective against STDs
	Sexual intercourse is not the only way of transmission of STD
	In case of STDs the first thing to do is consult a doctor as soon as possible
	STDs can also be present in people who have not had sex but have been in contact in other ways ( <i>e.g.</i> , transfusions with infected blood)
	A varicocele can be diagnosed by clinical examination or ultrasound
	A varicocele may be asymptomatic, present with scrotal symptoms or pains, and in some cases worse spermatogenesis and testicular function
	It is not always necessary to operate in the presence of a varicocele
	In some cases, after operation, varicocele may recur
	Symptoms of testicular cancer: presence of a mass, change in size, change in texture, scrotal and/or inguinal pain, scrotal weight feeling
	It is necessary to prevent testicular cancer
Lifestyle	Yes, it is possible to heal from testicular cancer
	If early treated, testicular cancer not always cause infertility
	There is no well-defined andropause but fertility and sexual potency decrease with age
	Severe testicular trauma may have consequences on testicular function and fertility
	A short frenulum is not dangerous and it is easily solved
	Regaining fertility after vasectomy is sometimes possible but difficult
	It is well established that drugs and alcohol negatively interfere with sexual health
	Physical activity is necessary to maintain and improve andrological health
	If not necessary, the use of androgens is harmful to the andrological health
	Male virginity can not be established
Generic questions	Yes, web pornography can cause addiction
	Yes, also the partner plays a very important role in sexual desire
	To date there are conflicting data on the role of cell phone on fertility and or sexuality
	It is good to deal with issues relating to sexual orientation with trained and professional doctors and psychologists

HIV: Human immunodeficiency virus; STD: Sexually transmitted disease; HPV: Human papillomavirus virus.

tion, denoting ignorance in this respect and highlighting widespread beliefs in popular myths. In fact, many young males are not aware of the fact that masturbation is integral to normal sexual development and that it represents a dynamic process during adolescence, and only compulsive masturbation should be considered a problem<sup>[11,12]</sup>. The other issue of great interest was, unsurprisingly, sexual intercourse. Interestingly, the main concern in this regard, was in contraceptives and methods for optimal performance, as well as about oral and anal sex while the risk of sexually transmitted disease (STD) did not seem to be prominent. Although previous studies have highlighted that there are a number of different pathways that may lead to either voluntary or involuntary adult sexual inexperience<sup>[13]</sup>, it is more likely that many of the

concerns voiced by the participants arise from actual voluntary practice, considering the growing proportion of adolescents engaged in oral and anal sex practices<sup>[14]</sup>.

### Sexually transmitted diseases

In our opinion, what should be worrisome is the lack of interest and concern displayed by the participants in STDs. In fact, the questions show that adolescents are poorly informed about the transmission pathways, consequences, and possible treatments for infections, and at the same time, they do not seem to give considerable thought to these issues. This observation is in agreement with the data collected by other authors who have highlighted the need for effective interventions to reduce adolescent STD infection<sup>[15]</sup>. Moreover, STDs also represent



the most significant modifiable risk factors for this age group with regard to fertility<sup>[16]</sup>. This topic does not seem to be a priority for adolescents, but this may only be the consequence of a lack of sexual health education and not of indifference toward these issues.

### Andrological health and fertility

STDs do not seem to be of great interest, but when made aware of these issues, students expressed the will to learn more both in terms of the most common diseases and of those they are more afraid of, such as varicoceles and testicular tumors. A varicocele is one of the most common pathologies but despite numerous studies concerning its evaluation and treatment, uncertainties remain. Both overtreatment and undertreatment are particularly costly. Expensive ultrasound, office visits and surgery must be avoided in those who do not need these treatments, while a careful follow-up and eventual intervention must be guaranteed to subjects who may be in need of them<sup>[17]</sup>. Another disease of great interest to students is testicular cancer, which represents the most common malignancy in young men, with the highest incidence among men in Nordic countries. Known risk factors are cryptorchidism, a previous history of testicular cancer and a family history of testicular cancer, and early detection and appropriate treatment are the only methods to decrease mortality<sup>[18,19]</sup>. In fact, if adequately treated and followed up it represents the most curable solid tumour and survival rate exceeds 90% in young males<sup>[20]</sup>. Unfortunately, the majority of young males is not aware of this information, which is critical for successful health prevention. Therefore, this survey, in accordance with data collected by other authors, underscores the continued need for comprehensive sexual and reproductive health education for adolescents and young adults<sup>[21]</sup>.

### Lifestyle

A widespread social problem all over the world is the use and abuse of alcohol and illicit drugs<sup>[22]</sup>. This represents the main topic of lifestyle in which young people are involved and on which they focus their interest, and prevention and treatment efforts would benefit from more careful attention in preventive health programs. Another matter to consider is physical activity during adolescence. The long-term benefits of habitual physical activity are recognized<sup>[23]</sup>, but it is necessary to inform adolescents about the risks of using doping substances, particularly considering the increased consumption of such substances by young people who practice sport<sup>[24,25]</sup>.

### Generic questions

In the last cluster, we collected less frequent but perhaps more topical and current questions asked by the participants. In addition to the issue about the possible negative effects of the use of mobile phones on fertility, questions asked by participants were commonly questions to which there are conflicting answers<sup>[26]</sup>, and questions on topics of interest concerning web pornography and sexual orientation. Web pornography is a phenomenon of such in-

creasing interest as to be defined by some authors as the new sexual revolution<sup>[27]</sup>. To date, a number of studies have highlighted the reasons why web pornography has such widespread use, and considered the characteristics of this new form of sexuality<sup>[28,29]</sup>. However, no one has yet taken into account the possible negative effects of the use or abuse of web pornography in terms of an increase or decrease in interest in real sexuality and in real sexual intercourse. Sexual orientation represents a difficult topic for adolescents to bring up, particularly because of the family and social context in Italy. It is demonstrated that homosexual young people face different developmental challenges during adolescence than those faced by heterosexual youths or individuals who recognize their homosexual orientation later in life<sup>[30]</sup>. Though sexuality has acquired new dimensions in many countries including Italy, religions and cultures consider sexuality almost exclusively as focused on reproduction<sup>[31]</sup>. Hence, there exists a difficulty for young people to deal with the issue of sexual orientation and therefore, the necessity to provide an adequate and qualified service for information and assistance. In conclusion, this study highlights not only that young people are very interested in general health issues, but also that they have very specific needs and interests on sexual health and sexual health information. In our opinion, public education campaigns such as Androlife should be increased in number and frequency and improved on the basis of the view of young participants. Sexual and reproductive health education and promotion for adolescents and young adults represents the basis both for wellness and for fertility preservation. Finally, the benefits of increased support for educational campaigns would be apparent not only in terms of individual health but also in terms of a reduction in public spending costs.

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## COMMENTS

### Background

Sexual activity, sexual health and sexual disorders are open issues and current problems especially among adolescents.

### Innovations and breakthroughs

This study highlights not only that young people are very interested in general health issues, but also that they have very specific needs and interests on sexual health and sexual health information.

### Applications

This is an interesting and meaningful topic which brings attention to the health care providers and raises public awareness for the importance of education in reproductive health.

### Peer review

This is an interesting and meaningful topic.

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