

Students' Sexual Behavior and Knowledge about Sexual Education in Lithuania's City of Kaunas

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Abstract

Background: An issue of lack of sexual health education has been raised following an apparent spread of sexually transmitted diseases and the increased rate of sexual behavior, especially among young people. This study aims to investigate students' knowledge about sexual education and sexual behaviour in Lithuania's city of Kaunas.

Methods: The study was conducted between December and March in 2013. Questionnaires were distributed to students before lectures, who then had 5 to 10 minutes to answer the questions. The form consisted of 23 questions focused to interview the students. Statistical data analysis was conducted using SPSS 20.0. The level of significance of 0.05 was chosen to assess the statistical hypotheses.

Results: The sample consisted of a total of 525 respondents from Kaunas (Lithuania), 24.2% (127) men and 75.8% (398) women. 78.3% (407) of our study group have already had a sexual intercourse. 60% (264) of study group had a regular sex partner. The most popular contraceptive method was condoms 72.5% (295). 42.9% (224) of our respondents didn't know when is the greatest chance to get pregnant during the female menstrual cycle, 41.4% (215) thought that woman cannot get pregnant after delivery before first menstruation. Only 31.8% (165) knew that contraceptive pills are more effective than condoms, however 89.3% (469) of respondents answered correctly that only condoms protect from STD and 91.6% (480) were aware that emergency contraception must be taken during 72 hours after a sexual intercourse.

Conclusions: Our investigation demonstrates that students are sexually active but they are lacking sexual behaviour education. Also, this research disclosed that students need more information about the reproductive life of a female, pregnancy possibilities, contraceptives and sexually transmitted diseases.

Keywords: Sexuality education; Reproductive health; Contraception; Knowledge; Unwanted pregnancy; Sexually transmitted diseases; Contraceptive pills, Sexual intercourse.

Introduction

In 2010 the first detailed European guidelines for sexuality education have been issued by World Health Organization (WHO). These guidelines focus on positive interpretation of sexuality, as a part of physical and mental health and such topics as sexually transmitted diseases (STD), unwanted pregnancies and responsibility for partner's health [1]. According to WHO sexuality education means learning about the cognitive, emotional, social, interactive and physical aspects of sexuality. This type of education should start early in childhood and progress through adolescence and adulthood as it is essential for sexual development. Informal sources of sexuality education, such as parents or other family members, are often inadequate for modern society. They often lack the necessary knowledge, particularly in such topics as contraception or sexually transmitted diseases [1]. An issue of lack of sexual health education has been raised following an apparent spread of sexually transmitted diseases such as acquired immune deficiency syndrome and the increased rate of sexual behavior especially among young people [2]. In a considerably small country like Lithuania with only 3 mln residents, about 600 new STD's infection cases are reported annually [3]. However, cultivate knowledge about contraception develop a better sexual health among young people. Undoubtedly, young people are not only of STD risk but also of such related problems like unwanted pregnancies. 5231 legal artificial abortions (most of them in a group aged 20-24) were registered in Lithuania in 2014 [4]. Unwanted pregnancies can cause serious condition of a mother and cost a lot of money for the state. For example, in 2011, in Hospital of Lithuanian University of Health Science there was a clinical case about an 18-year-old woman with unwanted pregnancy which she hid from her parents. Immediately post-partum after an urgent C-section she survived severe sepsis, acute respiratory distress syndrome (ARDS) and disseminated

intravascular coagulation (DIC) and was successfully treated with 11 different antibiotics, massive blood transfusions and repetitive surgeries. She was also on extracorporeal membrane oxygenation (ECMO) support for 22 days [5]. In USA 43% of unintended pregnancies are due to inconsistent or incorrect contraceptive use, and another 52% are due to non-use [6]. Some studies have shown that the easiest way to solve this problem is education on reproductive health and counselling about the best contraceptive methods [7,8].

Today there are 140.357 students in universities and colleges in Lithuania [4]. These young people usually have an active sexual life, however statistics of abortion show that they lack knowledge of sexual education, thus it is essential to improve their understanding of safe sexual activity and prevent unwanted pregnancies or STD. The scarcity of information may cause negative outcomes in both physical and mental state of a person; one of the common examples of the latter being depression [9]. Therefore, this study aimed to examine research sexual education presence and the current sexual behavior issues of young people in Lithuania's city of Kaunas, with the intent to offer specific steps towards enhancing a state of their sexual health.

Materials and Methods

The study was conducted between December and March 2013. Students were interviewed from 5 (all) universities of Kaunas (Lithuanian University of Health Science, Kaunas University of Technology, Vytautas Magnus University, Aleksandras Stulginskis University, Lithuanian Sports University) and the Kaunas college. Kaunas is the second biggest city in Lithuania. Among the research participants there were students of variety of subjects: economics, informatics, construction engineering, physics, Lithuanian philology, social sciences, medicine and obstetrics. Questionnaires were distributed to students before lectures; they had 5-10 minutes to answer the given questions. Lectures were selected accidentally, based on teachers' permission to conduct interview. From 540 distributed questionnaires 525 were answered. A 23-item questionnaire was constructed to interview students. The questions were grouped into 4 clusters. The questions in the first cluster were general queries regarding gender, age, university. The questions in the second cluster were about students' sexual life. The aim was to disclose students' sexual life and evaluate contraceptive needs. The questions in the third cluster were concentrated on reproductive system to assess their knowledge about female cycle, pregnancy possibilities and sexually transmitted diseases. The questions in the fourth cluster were to evaluate students' knowledge about contraceptives to confirm some myths, fears prevalence. Permission to carry out the study was obtained from the Bioethics Committee (No. BE -257, November 24, 2013). Statistical data analysis was conducted using SPSS 20.0. The data was analyzed using descriptive statistics, hypotheses on differences in means, interdependence of variables, cronbach alfa were verified. The level of significance of 0.05 was chosen to assess the statistical hypotheses.

Results

The characteristics of the study are presented in **Table 1**. The sample consisted of a total of 525 respondents from Kaunas (Lithuania), 24.2% men and 75.8% women. 2.85% (15) questionnaires were not responded. The results of our confidence interval indicate that we can be 95% confident that the age of our respondents is somewhere between 20.97 and 21.57 years.

Table 1. Characteristics of the study population.

Social and demographic characteristics	N (%)
Gender	
Men	127 (24.2)
Woman	398 (75.8)
Total	525 (100)
Have had sex intercourse	
Yes	407 (78.3)
No	113 (21.7)
Total	520 (100)
Has regular sex partner	
Yes	264 (60)
No	176 (40)
Total	440 (100)
Had unprotected sex in last 3 months	
Yes	105 (20.4)
No	410 (79.6)
Total	515 (100)
Age characteristics	
Age	21.27 ± 3.495 CI (20.97-21.57)
Age when had first sex	17.56 ± 1.594 CI (17.4-17.72)

78.3% of our study have already had sexual intercourse. Confidence interval shows that the age of our respondents during first sexual intercourse was somewhere between 17.4 and 17.72 years. 60% respondents had regular sex partner, 20.4% had unprotected sex in the last 3 months. Students who already had sexual intercourse contraceptive methods are submitted in **Table 2**.

From **Table 2** we can conclude that the most popular contraceptive methods are condoms (72.5%) and contraceptive pills (14.7%). However it is worrying that even 13% respondents used „pull out method“and 8.1% students did not use contraception at all.

Table 2. Contraceptive methods.

Contraceptives	n (%)
Condom	295 (72.5)
Contraceptive pill	60 (14.7)
Spermicide	7 (1.7)
Emergency contraception	19 (4.7)
Withdrawal (Pull out method)	53 (13)
Without contraceptives	33 (8.1)

Evaluating respondents' knowledge about reproductive system students were asked such questions as – when is the biggest risk to get pregnant during female menstrual cycle; can woman get pregnant before her first menstrual cycle after giving birth; does taking a shower right after sexual intercourse protect from unwanted pregnancy; is it true that not having a sexual intercourse is the only method to prevent pregnancy. Answers are given in **Table 3**.

From **Table 3** we can conclude that respondents lacked knowledge about reproductive system. 42.9% of our respondents didn't know when is the greatest chance to get pregnant during female menstrual cycle, 41.4% thought that woman cannot get pregnant after delivery before first menstruation. 22.4% confirmed that showering prevent

unwanted pregnancies and 25.8% of respondents thought that the only way to prevent pregnancy is to not have sexual intercourse at all. We also compared knowledge on reproductive system between those who had a regular sex partner and those who did not. Respondents having a regular sex partner more often answered correctly to the questions about menstrual cycle and the chances of getting pregnant $p = 0.02$, also disagree that absence of sexual intercourse is the only way to prevent pregnancy $p = 0.007$.

We also evaluated the knowledge of contraceptics. Respondents were given 7 questions to answer. Only 31.8% (165) knew that contraceptive pills are more effective than condoms, however 89.3% (469) of respondents answered correctly that only condoms protect from STD and 91.6% (480) were aware that emergency contraception must be taken during 72 hours after sexual intercourse. It was delightful to see that only 2.9% (15) respondents marked that it is fine to use the same condom twice. However, more than a half of our respondents 54.9% (284) marked that it is not essential for a man to pull out right after ejaculation while using a condom, 21.3% (110) did not know that they cannot use vaseline as a lubricant, and 29% (150) thought that using 2 condoms is better than using one. Evaluating the answers we have collected show that those who started sexual activity older, more often answered correctly to the question about emergency contraception consumption time $p = 0.007$ and to the question about using a condom twice $p = 0.0001$.

Table 3. Knowledge about reproductive system.

	n (%)
When the greatest chance to get pregnant during woman menstrual cycle?	
Right before menstrual bleeding	94 (18)
During menstrual bleeding	15 (2.9)
Right after menstrual bleeding	61 (11.7)
In the middle of the cycle	298 (57.1)
Don't know	54 (10.3)
Can woman get pregnant after delivery before her first menstruation?	
Yes	304 (58.6)
No	215 (41.4)
Is douching right after sexual intercourse preventing unwanted pregnancy?	
Yes	116 (22.4)
No	401 (77.6)
Is the absence of sexual intercourse only way to prevent pregnancy?	
Yes	135 (25.8)
No	388 (74.2)

Assessed knowledge about contraceptive pills, myths are given in **Table 4**.

Table 4. Knowledge about contraceptive pills.

	n (%)
Contraceptive pills are still effective after forgetting to drink it for 2-3 days in a row?	
Yes	98 (18.8)
No	422 (91.2)
Must women take a break every couple of years while using contraceptive pills?	
Yes	381 (73.6)
No	137 (26.4)
Oral contraceptive pills may reduce the risk of some cancer types?	
Yes	126 (24.2)
No	395 (75.8)

Table 4 demonstrate that 18.8% of respondents did not know the risk of forgetting to take contraceptive pills. Moreover, it is really worrying that majority does not know that it is not necessary to take breaks using contraceptive pills every couple of years or that contraceptive pills may reduce the risk of endometrial or ovarian cancer. Evaluating the most popular myths and fears, respondents were given 5 statements and were asked to mark from 1 (strongly disagree) to 5 (strongly agree) points, depending on how strongly they believe in the given statement (**Figure 1**). The majority 28.8% (148) gave 3 points to the statement – contraceptive pills may cause weight gain, 45.5% (233) gave 1 point to the statement – contraceptive pills may decrease libido, 49.1% (250) gave 2-3 points to the statement – contraceptive pills may increase the risk of serious diseases like cancer and 51.4% (264) gave 3-4 points to the statement – contraceptive pills may cause mood swings. Noticed that older respondents and women who were correctly using contraceptive pills answered that oral contraceptives may decrease the risk of some cancer types more often, respectively $p = 0.035$ and $p = 0.0001$. Women who used oral contraceptives gave lower points to the statement about pills and libido more often $p = 0.016$.

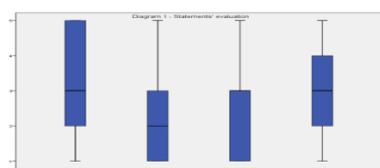


Figure 1: Statement evaluation.

Discussion

The intention of this study was to analyse students' sexual education and habits of sexual life in Lithuania's city of Kaunas. Our investigation demonstrates that students are sexually active, however they lack some essential knowledge of sexual behaviour.

Investigation demonstrates students' sexual education deficiency. Also, the research discloses that students need more information on female reproductive life, pregnancy possibilities [10], contraceptives and sexually transmitted diseases. Moreover, a group of students believe in such myths as the following two: it is better to use two condoms at the same time [11] or use vaseline instead of a lubricant [12].

Sexual activity and birth control methods has a different presence among countries. It might be determined by social, economic, political or cultural factors, as well as individual characteristics [13].

Whilst comparing with other scientific researches, Lithuanian students had sexual intercourse more often than students in Tanzania [14], respectively 78,3% and 70,4%. There is also a difference in students' usage of condoms: Lithuanians 72,5%, Tanzanians 56,0%, Serbians 92%, [15], Australians 91,1% [16]. Also Lithuanian students less often use COCP (combined oral contraceptive pills) 15,1%, compared with Serbians 17,5% or Australians 71,3%.

Last year teenagers between 15-19 years old laboured 1,147 newborns in Lithuania. However, 400 teenagers decided to perform abortion. Statistics and our research disclose that teenagers need more information on the later subjects. In general, young people are often receiving basic information about sexuality from media [17]. Teenagers are usually keen on trying out some seen images, feel new sensations, but do not know how to start or what to do. Thus the internet is becoming a key adviser in this situation. The important factor in this situation is the sources of where the information is originating from, for example, public talks are usually misleading, inaccurate or even thoroughly wrong. Certainly there should be an easier way for a young person to find a reliable source for gathering the fundamental information.

The best option could be sexual education at schools. Educational interventions can help increase the knowledge of available contraceptive methods enabling individuals to make informed decisions and use contraception more effectively. A systematic review investigated that examining the effect of educational interventions on contraceptive knowledge, 14 out of 15 studies found a statistically significant improvement in knowledge of contraceptive risks, benefits, side effects, effectiveness or correct use [9].

However, there is no sexual education programme in Lithuania. In 1999, a few „Youth Centres” launched in some of the biggest cities in Lithuania. In these youth centres volunteers, who had not preciously any specialised training, were guided by gynaecologists and contributing to working in the pregnancy field. In 2007 The Ministry of Education confirmed, preparation for Family life and Sexual Education

Programme". The long term aim of the program is to strengthen independent, mutual care and responsibility of the member, reduce the number of early sexual intercourse, delay sexual debut and increase responsibility for their sexual behaviour. The problem is that this program is not functioning [18]. Firstly, there are no educators who are responsible for sexual education or have an appropriate knowledge. Secondly, there is no medical information about reproductive system, contraceptives, sexually transmitted diseases included in this programme. Therefore, this programme has an insufficient amount of accurate, evidence-based medical information.

Independently from "Preparation for Family life and Sexual Education Programme" there are some preventive sexual education programmes. Currently the biggest effort to educate young people is shown from experts-volunteers rather than the official state practitioners. However, these type of lectures cannot proceed being carried out very often due to financial position thus not as many people can benefit from them. Moreover, there is only one known Peer Education instructor in Lithuania.

Currently the Parliament is in discussion to develop a new approach to sexual education programmes in Lithuania. There are recommendations for full sexual education programme with all evidence-based medical information, however the Parliament's general consensus is still against introducing any programme as, in their judgement, it is not essential. The main reason for the absence of sexual education in Lithuania is religion. Religious people declare that sexual education would promote sexual behaviour, which is not true [9]. Another reason is teenagers' parents. NAFP (National Association of Families and Parents) has expressed their willingness to choose sexual education programme. But programme cannot be created by parents as they lack the necessary knowledge [1]; it should rather be constructed by professionals.

School-based sexuality education programmes are widely spread around the world. The development of, for example, another Baltic country – Estonia, the curriculum began developing gradually in the 1990s through the work of a partly voluntary 'subject commission'. In 1996, a new national curriculum established a programme on the compulsory subject Human Studies, which included sexuality education. The curriculum was updated during 2000-2002 and 2010. The latest version is designed to focus greater attention on prevention of risky behavior and define the topics on health and sexuality education more clearly. Since the 2010 revisions, human studies remain integrated in the curriculum and the number of sexual and reproductive health-related lectures has been increased. The programme is delivered alongside Youth Counseling Centres to provide young people with free STD counseling, tests and treatment, and counseling on safer sex and family planning. The results of evaluation studies show that there has been an evident increase in sexuality and reproductive health-related topics discussed and lectures delivered since the programme was first introduced. Another education programme Long Live Love is a stand-alone intra-curricular programme that was developed for secondary schools around 1990 by the Dutch STI Foundation (now STI

AIDS Netherlands). Sexuality education is not compulsory in the Netherlands but is usually adopted by schools, with LLL being the most commonly used curriculum. Programme and curriculum development is managed by the Dutch STI Foundation, teachers are trained by Municipal Health Services and implementation costs (teachers' salaries) are borne by the Ministry of Education. Long Live Love is the most widely used sexuality education curriculum in the Netherlands and is implemented in an estimated 50% of target schools.

In conclusion, school-based sexuality education programme is not actively present or seemingly beneficial in Lithuania and its consequences reveal scientific research based results: deficiency of knowledge on female reproductive life, contraceptives and safe sexual life. Younger generations are becoming more liberal in their views of sexual life thus it is necessary to provide basic evidence-based medical information.

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