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Knowledge about sexual transmitted disease (STDs) and risks involved amongst young people population living in south-eastern region of Poland

Wiedza na temat zagrożeń chorobami przenoszonymi drogą płciową (STDs) w populacji młodych dorosłych regionu południowo-wschodniej Polski – badanie pilotażowe

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Wstęp:

Choroby przenoszone drogą płciową (STD; *sexually transmitted diseases*) stanowią poważny problem zdrowotny z powodu stale rosnącej liczby zachorowań. Liczne badania wskazują, że polska młodzież nie posiada dostatecznej wiedzy na temat zagrożeń STD, głównie z powodu mało efektywnej edukacji seksualnej w szkołach, w rodzinie oraz w instytucjach medycznych.

Cel:

Celem badań było zbadanie poziomu wiedzy na temat STD oraz analiza zakresu kontroli nad własnym zdrowiem w populacji młodych dorosłych w wieku 19-24 lata zamieszkujących tereny południowo-wschodniej Polski.

Material i metody:

Przebadano 104 osoby w wieku 19-24 lat (57,7% kobiet i 42,3% mężczyzn). W badaniu zastosowano metodę sondażu diagnostycznego z wykorzystaniem autorskiego kwestionariusza oraz polskiej adaptacji Skali Umiejscowienia Kontroli Zdrowia MHLC. Analizy danych dokonano za pomocą programu Statistica 13 PL.

Wyniki:

Ponad połowa badanych (54,8%) uważała, że STD są przenoszone wyłącznie drogą płciową. Spośród chorób znane były zakażenia HIV/AIDS (93,3%), opryszczka genitalna (86,5%), rzeżączka (84,6%), kiła (80,8%). Głównymi źródłami posiadanej wiedzy były internet (67,3%), broszury (28,8%), telewizja (22,1%), a w najmniejszym stopniu rodzice (1,9%). Zdaniem badanych edukować powinien lekarz-ginekolog, lekarz-seksuolog (61,5%) lub doświadczony pedagog (18,3%). Nie wykryto różnic między poziomem wiedzy kobiet i mężczyzn ($p > 0,05$). Wykazano istotną statystycznie różnicę wyników oceny wiedzy na temat STD między osobami z wykształceniem zasadniczym zawodowym oraz wyższym ($p < 0,05$) oraz istotny statystycznie związek pomiędzy wiekiem badanych a poziomem ich wiedzy ($p < 0,01$). Nie wykryto żadnego istotnego związku pomiędzy poziomem wiedzy a wynikami kwestionariusza MHLC ($p > 0,10$). Nie odnotowano związków między poziomem wiedzy oraz podejmowaniem ryzykownych zachowań seksualnych.

Wnioski:

1. Wiedza respondentów na temat STD jest niekompletna i nieuporządkowana.
2. Młodzi ludzie oczekują informacji na temat STD od specjalistów ginekologów, seksuologów i doświadczonych pedagogów.

3. Tematyce chorób przenoszonych drogą płciową należy poświęcić więcej uwagi nie tylko w szkole, lecz również w środowisku wychowania z podkreśleniem roli rodziców i opiekunów.
4. Wskazane jest ukierunkowanie młodzieży na umiejętne wyszukiwanie informacji i pozyskiwanie ich z wiarygodnych źródeł.

Słowa kluczowe: choroby przenoszone drogą płciową, wiedza, świadomość zagrożeń STD.

Introduction:

Sexually transmitted diseases (STD) are considered to be a serious health matter with the numbers of cases continuously increasing. Numerous studies have pointed out that Polish youth do not have a sufficient knowledge of the risks involved with contracting STD, mainly because there are no effective sexual education within schools, families or medical institutions.

Aim:

The aim of this research was to investigate the level of knowledge concerning STD amongst the population of young adults between 19 and 24 years old living in the South-eastern region of Poland.

Methods and Materials:

The analysis was comprised of 104 people between 19-24 years old from which 57.7% were women and 42.3% were men. The method used to conduct described research was a diagnostic survey, from which a questionnaire created by the author was used alongside a Polish adaptation of the Multidimensional Health Locus of Control (MHLC). The analysis was carried out using Statistical 13 PL program.

Results:

More than half (54.8%) of those surveyed believed that STD contraction could only be possible via sexual intercourse. Amongst those surveyed the most known itemized STDs were HIV/AIDS (93.3%), genital herpes (86.5%), gonorrhoea (84.6%) and syphilis (80.8%). The knowledge of those surveyed was based on the information obtained through the internet (67.3%), leaflets and handouts (28.8%), television (22.1%) and lastly parents (1.9%). In the opinion of participating surveyed sexual education should come from a gynaecologist or sexual health professional (61.5%) or an experienced pedagogue (18.3%). There was no difference in STD knowledge between women and men ($p>0.05$). There was a significant difference in

knowledge which was shown in the results of those surveyed between people with a basic and a higher education ($p < 0.05$) with a statistically significant link between the ages of those surveyed and their knowledge ($p < 0.01$).

Conclusion:

1. The knowledge of those surveyed is unsystematic and incomplete.
2. Young people expect information from gynaecologist, sexual health professionals and experienced pedagogue.
3. The subject of STD should be addressed more not only in schools but also within their own home whilst highlighting the importance of the role of the parents in this aspect.
4. It is recommended to educate young people on where to obtain sufficient and adequate information from reliable sources.

Key Words: Sexually transmitted diseases, knowledge, conscious risks involved with STD.

Background

Sexually transmitted diseases (STDs) are a serious medical problem worldwide. According to World Health Organization (WHO) over a million people a day contract STD and that make over 500 million per year. The group of the highest risk of contracting STD consists of youth and young adults. They represent only 25% of sexually active population, but also almost 50% of newly diagnosed STD cases [1]. Social changes that took place in Poland at the end of the twentieth century contributed in great part to changes of traditional values. Faster sexual maturation as well as increasing tolerance concerning sexual behavior are clearly seen. The results of Health Behaviour in School-aged Children (HBSC) study conducted in 2013/2014 identified an increase of frequency of sexual initiation and lowering of the mean age of sexual initiation. Moreover 40% of teenagers do not use condoms during sexual activities [2]. Sexual maturation is very difficult process for many young people in changing Polish reality. One of the tasks of sexual education is transferring sound knowledge that should result in better state of their physical, mental and emotional health. Learning the factors that influence the sexual behaviour can significantly increase the efficiency of activities concerning health education and promoting health among school students. Bringing this mentioned subject is consistent with seeking effective methods of educating young people before their sexual initiation.

Objective:

The objective of the study was to assess the level of knowledge about STD as well as the analysis of the range of control over own health in population of young adults aged 19-24 living in south-eastern Poland.

Material and methods:

The study was conducted in a group of 104 people aged 19-24 (57.7% women and 42.3% men) (Table 1) living in podkarpackie and świętokrzyskie provinces. The study method was a diagnostic survey. More precisely, self-made questionnaire and standardized tool were used. The questionnaire consisted of 4 components: (1) respondent's particulars with questions about socio-demographic variables, (2) questions measuring the level of knowledge about STD, (3) questions about sexual behaviours of the respondents and (4) questions about sexual education. Multidimensional Health Locus of Control Scale (MHLC) in version B (authors: K. Wallstone, B. Wallstone, R. DeVellis, Polish adaptation by Z. Juczyński) was the second tool used. Before conducting the study the approval of Bioethical Committee (resolution No. 19/2016 of 11.05.2016) was obtained. The results of the study were statistically analysed using Statistica 13 PL. The level of significance was set at $p < 0.05$.

Table 1. Demographic characteristic of the study group.

criteria		n=104	%
sex	woman	60	57,5
	man	44	42,3
marital status	single male	28	26,9
	single woman	49	47,1
	married	10	9,9
	partnership	14	13,8
	no data	3	2,9
education	higher	12	11,5
	secondary	82	78,8
	vocational	3	2,9
	no data	7	6,7
professional status	work	8	7,6
	work/education	18	17,3
	education	71	68,2
	no data	12	11,5
place of residence	rural area	50	48,0
	urban area	54	51,9
mother/guardian education	higher	28	26,9
	secondary	33	31,7
	vocational	40	38,4
	no data	3	2,9
father/guardian education	higher	12	11,5
	secondary	37	35,5
	vocational	51	49,0
	no data	4	3,8

Knowledge about STD

The subjects assessing their knowledge about sexually transmitted diseases (73.1%; n = 76) confirmed that the level of their knowledge about STD is limited, at the same time declaring their will to widen it. Own knowledge in this regard was declared only by 12,5% of the subjects, next 8.5% of the respondents admitted having no knowledge and 5.8% of the subjects despite the lack of knowledge did not want to gain it. Those declarations were partially confirmed by the results of the study. Over a half of the subjects (54.8%; n = 57) mistakenly defined STD as diseases transmitted only sexually and another 25% thought that they are related solemnly to genital. Correct answer “STD are diseases that can be transmitted sexually” was chosen by 45.2% or n = 47 respondents. Among the study participants 74% knew that STD may affect different organs and vastly (87%) confirmed that STD are worldwide problem. The best known STD were: HIV infection/AIDS (93.3%; n = 97), genital herpes (86.5%; n = 90), gonorrhoea (84.6%; n = 88), syphilis (80.8%; n = 84) (fig. 1).

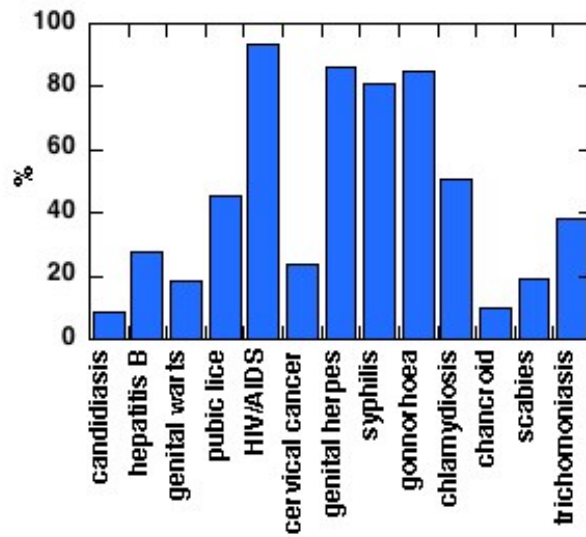


Figure 1. Knowledge of sexually transmitted diseases among the study subjects (N = 104)

The subjects presented good knowledge of etiologic factors of STD, listing viruses (86.5%; n = 90), bacteria (60.6%; n = 63), fungi (52.9%; n = 55), parasites (15.4%; n = 16). The symptoms of STD infection listed by the subjects include: burning and itching (94.2%; n = 98), perineal inflammatory changes (85.6%; n = 89), vaginal discharge (71.2%; n = 74), pain during intercourse (66.3%; n = 69), pain during urination (52.9%; n = 55), bleeding after intercourse (51%; n = 53), urethrorrhagia (49%; n = 51). Pain of the joints was the symptom of STD for 4 people (3.8%) and palpitation was the symptom for 2.9% (n = 3). Over 70% of the subjects (70.2%; n = 73) knew about asymptomatic course of STD. Diagnostic methods of STD known to the subjects include: laboratory diagnosis (86.5%; n = 90), medical examination (76.9%; n = 80) and anamnesis (51.9%; n = 54). Questioned about possibilities of curing STD the subjects indicated that gonorrhoea (77.8%), syphilis (70.7%), chlamydiosis (56.6%) were curable. As the results of the lack of curing STD the subjects indicated pregnancy and childbirth complications (75.7%; n = 79), infertility (68%; n = 70), threats to child's health (62.1%; n = 64), potency problems (54.4%; n = 56), congenital malformations and death (both 49.5%; n = 51), cancer (48.1%; n = 50), urethritis (40.8%; n = 42), development of kidney infection (23.3%; n = 24). Factors increasing the development of cervical cancer are, according to the subjects, genetic disposition (70.9%; n = 70), frequent change of sexual partners (57.3%; n = 59), HPV infection (56.3%; n = 58).

Awareness of the risks

The main source of information about STD for the subjects is Internet (67.3%; n = 70), brochures and leaflets (28.8%; n = 30), TV programs (22.1%; n = 23), teachers (16.3%; n = 17). Nurses and peers were indicated by 10.6%, doctors by 7%, only 1.9% (2 people) indicated parents. The subjects would like to gain knowledge about STD mostly from doctors (42.3%) and nurses (25%). Only 3.8% of the subjects wanted to gain that knowledge from parents and 2.9% from peers. According to the subjects main factors responsible for spread of STD include sexually permissive lifestyle (86.5%), insufficient sexual education (75%), alcoholism and drug addiction (66.3%), risky behavior (61.5%), neglect hygiene (46.2%) and lack of medical check-ups (39.4%). According to the subjects risky behavior include: casual sex without protection (90.4%), many sexual partners (87.5%), group sex (79.8%), prostitution (76.9%), using drugs (52.9%), sex after drinking (50%) and anal sex (43.3%). Most of the subjects (76%; n = 79) answered positively to a question of treating of both sexual partners if one of them was diagnosed with STD, but 19.2% (20 people) answered that only the ill person should be treated and 4.8% (5 people) checked “do not know”.

Table 2. Who should be informed about contracting STD

No.	answers	n	%
1	family members	18	17,3
2	employer	4	3,8
3	family doctor	30	28,8
4	sexual partner	94	90,4
5	nobody	0	0,0
6	do not know	2	1,9
total		148	–

The answer “do not know ” was also the most often chosen (31.7%; n = 33) regarding criminal liability for deliberate infection of STD of another person (in Poland). The largest group of the subjects (35.6%; n = 37) had sexual initiation at 19-21. Most of the subjects (66.3%; n = 69) 12 months before the study was conducted had one sexual partner. Vast majority of the subjects (89.4%; n = 93) declared that they never took sexual contacts related to a threat of contracting STD. According to majority of the subjects the most effective methods of prevention was using condoms (85.6%), having steady sexual partner (80.8%) and regular check-ups (65.4%). In subjects’ opinion people frequently changing sexual partners (54.8%; n = 57) were the most exposed to the risk of contracting STD. About 90,4 % tested population indicated that sexual partner(s) should be informed about the contracted STDs (Table 2). About 25% of the subjects

thought that sexual education delays the sexual initiation, 17.3% of the respondents thought that it speeds it up and more than a half of the subjects (57.7%; n = 70) had no opinion on the subject. Most of the subjects (61.5%) thought also that it should be a sexologist or gynecologist who teaches sexual education subject at school. There were no statistically significant differences between the level of knowledge about STD of women (mean level 58.70) and men (mean level 57.95). Marital status, place of residence, professional status, province in which the subjects have lived and the level of education of both parents were not differentiating factors of the level of knowledge about STD ($p < 0.05$). Statistically significant relation between the age of the subjects and their level of knowledge about STD was proven ($r_s = 0.30$; $p < 0.01$), that means that the older the subjects were the greater level of knowledge about STD they had.

Health locus of control

There was no significant relation between the level of knowledge and the results of MHLC questionnaire ($p > 0.05$). It should be noted that the questions measuring the level of the knowledge of the subjects were highly specific what could influence the lack of such relation. For that reason finding the trend (that is when p was greater than or equal to 0.05 but less than 0.10) was considered. There was a trend ($p = 0.0676$) found when comparing the results of W subscale (W - inner) of the subjects divided due to the number or sexual partners during last 12 months (one, several or none). The difference occurred between those who had sexual contact with one person and those who had none (Tab. 3).

Table 3. The number of sexual partners during the last 12 months, and results of MHLC subscales.

No.	Number of partners	one	many	none
1.	W	27,71	26,00	25,79
2.	I	23,04	22,17	22,38
3.	P	21,16	21,83	19,63

There were no differences of MHLC results due to the age of sexual initiation or taking sexual contacts despite existing risk of contracting STD.

Discussion:

In recent years there were many positions in Polish literature devoted to the dangers caused by sexual behavior. The growing incidence of STD results in taking preventive actions. According to Izdebski, the author of "Poles Sexuality 2017" report, there is visibly seen bigger and bigger generation gap in approach to sex, that give evidence to moral changes of young

Poles. The report outlines that only 42% of Poles were satisfied with their sexual life and that they more and more often allow themselves for affairs at work, during vacationing alone or after alcohol consumption [3]. Nowosielski et al. assessing sexual behavior and using contraceptive methods in population of young adults living in slake province stated that 76.1% of the subjects had sexual initiation, but 3.3% of them did not use any contraceptive methods. The most frequent used contraceptive method was a condom (96.9%), the least frequent - IUD (intrauterine device) (3.3%). Vocational schools students had coitus interrupts more often than other subjects. With the increase of intellectual level the frequency of using varied contraceptive methods was also increasing. People aged 21-26 far more often than younger subjects paid attention to the quality and comfort of sexual intercourses. The main sources of the knowledge about contraception were media (72.6%), while parents (29.2%) and doctors (23%) were the least popular source [4]. The results of author's research indicate selective and unordered knowledge of young people about STD, which is confirmed by the results of other researches. Tritt proved that many respondents do not differ the concepts of HIV and AIDS and a great number of them had little knowledge about basic STD. The vast majority of the subjects know the rules of using condoms (even though about 30% of them think differently and 5% of the respondents would put a condom on both scrotum and penis) [5]. The author's research did not prove the difference between the level of knowledge of men and women, while the results of other researchers indicate that women have greater knowledge about STD than men. According to the high school students studied by Olejniczak et al. (mostly female) best methods of prevention of STD are: avoidance of accidental sexual contacts (87%), using condoms (83%), hygiene (66.5%) and regular check-ups (64.5%). Using medicines as a method of preventing STD was indicated by 12% of the respondents (87.5% of them were men) [6]. Wdowiak et al. also proved low level of knowledge about STD of male college students and medium level of knowledge of female college students. Vast majority of the subjects indicated using condoms, avoiding accidental sexual contacts and having one sexual partner as elements of prevention of STD [7]. Answering the question about criminal liability for deliberate infection of STD was a problem for the subjects, the most often chosen answer was "do not know" (31.7%; n = 33). The subjects in Bednarek and Puszkarcz research also acknowledged having no knowledge on the subject (44% of the respondents) or thought that it was not a criminal offence (4%) [8]. There is insufficient number of programs concerning safe sex in the media and there should be more discussions about it at school. In the study of the awareness of risk factors and prevention methods of STD infections by Mężyk et al. only 52% of the respondents used reliable scientific, medical literature to gain knowledge about STD and only 16% of the respondents gain the

knowledge from a doctor. The low level of knowledge is confirmed by facts that 98% of the subjects do not know human papilloma virus, 65% do not know any complications related to STD and as many as 88% of the subjects thought that all STD are curable [9]. The knowledge of the young is strictly related to the level of the teachers. The researchers postulate that the main source of information about STD should be medical staff and trained educators. The results of the study by Szelağ and the experience of working as a teacher of biology and sexual education inclined to draw conclusions that teaching sexual specially trained educator as should do education as a separate subject oppose to teaching it as an educational path realized on all subjects by all teachers. Additional actions as knowledge or art contests and encouraging preparation of theme genre scene increase the efficacy of the education [10]. According to the results of the study by Podolska and Kozłowska the future educators have problems with regular check-ups, even though they should set an example for women and play a role in health education [11]. The studies indicate that the age of sexual initiation is constantly decreasing [4,12]. Insufficient level of sexual and health education can lead to taking risky sexual behavior that could result in new contractions of STD as well as serious problems of broader public health.

Conclusions:

1. The level of knowledge of the respondents about STD is incomplete.
2. Young people await information about STD from gynecologists, sexologists and experienced teachers.
3. One should pay more attention to learning about STD not only at school but also at home enhancing the role of parents and guardians.
4. The youth should be directed into skillful searching of information and obtaining them from reliable sources.

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