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Review article ■

Internet-Based Promotion of Safer Sex and Condom Use among Young People

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SUMMARY

Sex education is aimed at equipping individuals with sex-related information, motivation, and behavioral skills that will enable them to avoid sex-related problems and to achieve sexual well-being. Safer sex promotion and condom promotion and distribution programmes have grown significantly since the beginning of the AIDS epidemic. Condom use among young people is especially important because the young are often at greatest risk of HIV infection and have the least access to condoms. In many countries, where the Internet is part of the media landscape, not-for-profit agencies, governments and commercial condom companies alike have started utilising the Internet to promote safer sex and condom use. Most young people have regular access to the internet, and there is some expectation that the Internet is helping to fill the sexual health information gap. The development of an Internet-based, theoretically-driven, innovative approach to sex education weds the special strengths of the Internet as a rich, interactive, individualized pedagogical tool in order to provide effective sex education to large numbers of individuals in a very cost-effective fashion. The proposed approach exploits the characteristics of anonymity, availability, affordability, acceptability, and aloneness of using the Internet. Within this approach, learners are first individually assessed in terms of information, motivation, and behavioral skills deficits that are relevant to the individual's sexual problems and sexual well-being.

Key words: condom use promotion, safer sex promotion, HIV prevention, young people, Internet

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INTRODUCTION

Safer sex promotion and condom promotion and distribution programmes have grown significantly since the beginning of the AIDS epidemic. Condom use among young people is especially important because the young are often at greatest risk for HIV infection and have the least access to condoms. Moreover, young people are establishing patterns of sexual behaviour that may last a lifetime. One indicator often used to examine condom use among the youngest sexually active persons is to ask whether a condom was used among the youngest sexually active persons is to ask whether a condom was used during their first sexual encounter (1). Rates as high as 77% are reported in France and 68% in England. However, developing countries such as Brazil (48%) and Mexico (43%) also have a high proportion of young people who say they used condom the first time they had sex (1, 2). Forty-one percents of sexually active university students in Niš reported that they had used condom during the first sexual intercourse, while 47% of them used condom during the last sexual intercourse. Out of this number, 45% of the male students and 36% of the females used condom during the first sexual intercourse ($\chi^2=14.16$, $df=1$, $p<0.001$), and 47% of the males and 48% of the females during the last sexual intercourse ($\chi^2=0.172$, $df=1$, $p=ns$) (3).

Demographic and health surveys (DHS) show that young age is a strong predictor of condom use, except apparently among young men who have sex with men (MSM), for whom condom use may be lower in some settings (1). DHS data from 27 countries in Africa and Latin America showed higher rates of condom use at last high risk sex for 15-24 year olds compared to 25-29 year olds in every country (4). High risk sex was defined as sex with a non-marital, non-cohabiting partner. These studies demonstrate that lower age seems to be one of the strongest predictors of condom use. At the same time, there remains a number of obstacles to ensuring that young people use condoms. Myths, fears and misperceptions about condoms among young people, combined with inaccessibility to supplies, severely weaken prevention practices among 15-24-year-olds, yet this is the age group hit hardest by the HIV epidemic in many settings (1). Structural barriers such as gender norms and roles, social stigma, and lack of access to youth friendly health services constitute additional major factors undermining the capacity of young people to protect themselves from HIV infection. The age of students and type of secondary school that the young attend may have significant influence on their knowledge about HIV transmission which is important for designing of educational intervention (5).

For the majority of students (81%) who attended Voluntary confidential counseling and testing Center for HIV in the Public Health Institute Niš, counseling/ testing was provided due to risky sexual intercourse (6,7). During the last sexual intercourse 60% of the students

did not use condoms mostly because they did not know the right reason for it or did not think about it (28%), or did not like condoms (33%) or had already use contraceptives (3%), or had faithful partner (6,7).

We have to note that health care workers are key players in the prevention and management of HIV and STD (8, 9). Continuing education of HCWs' regarding HIV and STD and their engaging in different prevention programmes and interventions designed for youths may contribute to safer sex practice and higher condom use among young people (10).

Nowadays, mass media can and have been used to reach young people with health information (11,12). The Internet can serve as a useful supplement to existing health care services and systems. Especially for young people and adolescents, who can feel marginalized by restricted access to available health care resources (13, 14) or anxious asking about sensitive health issues (15), this medium can provide important health information on a range of sexual health topics.

Internet promotion of safer sex and condom use

In many industrialised countries, where the Internet is a part of the media landscape, not-for-profit agencies, governments and commercial condom companies alike have started utilising the Internet to promote safer sex and condom use (16). A simple Google search for „safer sex“ generates thousands of links to information, websites, articles and videos. This wide range of information is available, of course, to anyone with Internet access and is playing a role, sometimes controversial, in increasing understanding of safer sex.

A review of fifteen years of information on sexuality on the Internet, including on safer sex, posted in developed countries, found a surprising number of gaps (17). Such sites are generally standalone and not integrated into larger condom use campaigns. In addition, many safer sex sites and messages are clinical, seemingly divorced from sex and pleasure, thereby reinforcing perceptions that safer sex is not pleasurable sex. Sorting through the massive amount of information can be daunting; indeed, Jones et al. document how young people in USA, exposed to an overabundance of information and disinformation on the Internet, have become wary of Internet-based sources for sex education (18). Nevertheless, the Internet has become an important source of information on sex and relationships (19).

In developing countries, the few studies of Internet utilisation to promote safer sex on a significant scale were generally positive about the role the Internet can play. In China, for example, an online sex education experiment documented the impact on a group of students compared to a control group, concluding that the Internet represented an effective way to provide sex education to young people (20).

There are substantial and growing efforts to provide teens with sexual health information on the Internet. Web sites such as *sexetc.org*, *iwannaknow.org*, and *scarleteen.com* are intended to provide factual and real-world information about a range of sexual health issues as well as a forum for adolescents to (anonymously) submit questions and participate in discussions. Two small-scale and somewhat dated studies found that approximately one in four young adults used the Internet to find information about sex (21, 22). A study of 412 10th graders in 2000 found that the Internet was teens' most common source of information about birth control and sex, although friends and parents were identified as more valuable sources (21).

The efficacy of a tailored, web-based intervention communicating the risks of sexually transmitted infections (STI) for heterosexual young adults was examined in a randomized, controlled trial (23). The main aims of the relationship-oriented intervention were to influence risk perceptions and to promote (maintenance of) condom use and STI-testing among young adults who reported being recently engaged in a heterosexual relationship. The intervention addressed risk perceptions, attitudes, normative beliefs, self-efficacy and skills related to condom use and STI-testing. Outcomes were compared immediately after the intervention (N=171) and three months later (N=115) to a non-tailored intervention group and to a control group. Cognitive and behavioral outcomes showed that the tailored intervention was efficacious in influencing perceived susceptibility to STI and STI-testing intentions immediately after the intervention, and in reducing rates of unprotected sex at three months.

Bull et al. tested a single session condom promotion Internet intervention for 18-24 year olds in two randomized controlled trials (RCTs): one sample recruited online and one recruited in clinics. All study elements were carried out on the Internet (24). Using repeated measures structural equation models they analyzed a change in proportion of sex acts protected by condoms (PPA) over time. Among sexually active youth in the Internet sample, persons exposed to the intervention had very slight increases in condom norms, and this was the only factor impacting PPA. There were no intervention effects in the clinic sample. Internet-based interventions need to be more intensive to see greater effects. Investigators need to do more to reach high risk youth online and keep their attention for multiple sessions.

Jones and Biddlecom conducted in-depth interviews with a racially and ethnically diverse sample of 58 high school students to find out where they obtained information about contraception (25). A substantial minority had been exposed to online contraceptive information, but most did not consider it a main source. A majority had been exposed to this information from school, family, friends, and traditional media. Most teens were wary, or even distrustful of online sexual health information, whereas school, family and, to a le-

sser extent, friends, were generally trusted. Their findings suggest that the internet is not filling the sexual health information gap for a number of teens, but investigators identify strategies that could increase teens awareness of, and trust in information from this source.

There have been studies demonstrating the efficacy of computer-based interventions for HIV and STD prevention, delivered via kiosk or computer in various institutional and community settings. Kiene and Barta showed that college students randomized to participate in two computer based sessions to reduce HIV and STD risk spaced two weeks apart had an increase in awareness regarding HIV and STD, more frequently carried condoms, and more frequently used condoms compared to those in the control group (26). Lightfoot and colleagues showed that high risk youth participating in two 1.5 hour computer-based HIV prevention sessions were less likely to engage in sex and had fewer sex partners compared to controls (27). Roberto and colleagues showed that high school students participating in six 15-minute computer-based HIV and STD prevention sessions spaced one week apart had greater delays in initiation of intercourse and improved attitudes and self-efficacy for safer sex behaviors compared to controls (28). Computer-based efforts in HIV prevention show promise, and have the advantages of standardization, fidelity and likely ease of replication. The Internet offers an additional opportunity to reach larger numbers of people in diverse settings. The privacy offered by computers and the Internet is also an asset as is the accessibility to interventions from multiple sites (e.g., home, clinic, library). The standardization, fidelity, ease of replication of computer-based interventions and the added potential benefits of reach and increased use of the Internet by youth, make both computers and Internet logical venues for HIV/STD research and prevention interventions.

Large multinational condom manufacturers such as Durex and Trojan have opened Facebook pages, joining the ranks of companies who are taking advantage of social networking (29). In Brazil, the Internet has proven useful to DKT's social marketing of condoms for safer sex between men who have sex with men (30). In Turkey, DKT International, a social marketing enterprise, leveraged the high use of the Internet and social networking to help build Fiesta, a premium condom brand, and promote sales and condom use (16). By utilizing a wide range of digital platforms-a new website, Facebook page, Google Adwords, an e-newsletter, viral marketing, banner ads and involving bloggers- Fiesta achieved strong recognition among the target audience of sexually active young people, though far more men than women. Retail audits, Internet analysis and sales performance suggest that using the Internet was instrumental in establishing Fiesta. Sales reached 4.3 million condoms (of which 8% were sold online) in the first 18 months. In contrast, Kiss, a far more inexpensive DKT condom, launched at the same time but with no digital campaign, sold 2.6 million. Activity levels on the Internet and sales of condoms

can serve as proxy measures of behaviour change (16). More in-depth research would be useful to assess the role that Internet platforms have played in safer sex behaviour and social norms.

CONCLUSION

The Internet can serve as a useful supplement to existing health care services and systems. Especially for young people and adolescents, who can feel marginalized by restricted access to available health care resources or anxious asking about sensitive health issues, this medium can provide important health information on a range of sexual health topics. In many countries, where the Internet is a part of the media landscape, not-for-profit agencies, governments and commercial condom companies alike have started utilising the Internet to promote safer sex and condom use. Most young people have regular access to the internet, and there is some expectation that the internet is helping to fill the sexual health information gap. Condom use among young people is especially important because the young

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PROMOCIJA BEZBEDNOG SEKSA I UPOTREBE KONDOMA MEĐU MLADIMA POSREDSTVOM INTERNETA

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Sažetak

Seksualno obrazovanje ima za cilj da pruži važne informacije o seksu, motivaciji i veštinama ponašanja koje će pomoći ljudima da izbegnu seksualne probleme i održe seksualno zdravlje. Programi promocije bezbednog seksa i upotrebe kondoma su u poslednje vreme veoma zastupljeni upravo zbog epidemije side. Upotreba kondoma među mladima je posebno važna zbog činjenice da su upravo mladi najviše izloženi riziku od HIV infekcija, kao i zbog toga da im kondomi nisu lako dostupni. Mnoga ministarstva, neprofitabilne organizacije i kompanije za proizvodnju kondoma koriste internet, koji je inače uobičajeno sredstvo za komunikaciju, kako bi promovisale bezbedni seks i upotrebu kondoma. Veliki broj mladih ljudi ima nesmetan pristup internetu, a veruje se da je upravo internet tu da popuni prazninu koja postoji u vezi sa informisanošću o seksualnom zdravlju. Razvoj jednog inovativnog, ekonomičnog pristupa seksualnom obrazovanju koji se zasniva na izvorima sa interneta dovodi do sagledavanja interneta kao jednog posebnog, interaktivnog, pedagoškog sredstva za seksualno obrazovanje velikog broja mladih. Ovakav pristup naglašava karakteristike anonimnosti, dostupnosti i samostalnosti u korišćenju interneta. Pored toga, pruža individualni pristup velikom broju informacija, daje motivaciju i podučava veštinama ponašanja neophodnim u rešavanju seksualnih problema i održavanju seksualnog zdravlja.

Ključne reči: promocija upotrebe kondoma, promocija bezbednog seksa, HIV prevencija, mladi, internet