IN PRACTICE

Barriers to effective STI screening in a post-Soviet society: results from a qualitative study

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Objective: This qualitative study assesses knowledge about sexually transmitted infections (STI), identifies perceived barriers to STI testing, and recommends strategies to optimise participation in a home based STI testing programme.
Methods: Five focus groups composed of 29 total participants were recruited using convenience sampling methods based on age (18–40 years), gender (male and female), and residency (Tartu region, Estonia).
Results: The focus groups revealed significant knowledge deficits and a widespread attitude of denial. However, participants acknowledged that STIs are a serious problem and recommended strategies for increasing participation in an STI testing and treatment programme. Successful STI prevention programmes must address a number of challenges, including disease stigmatisation and privacy protection.
Conclusion: The fear of enforced disease control methods coupled with the current stigmatisation of STIs creates a serious challenge for Estonian STI prevention and treatment efforts. This qualitative study provides a good contextual reference for STI control programmes in eastern Europe.

During the past 15 years, sexually transmitted infections (STIs) have become a major public health problem among adolescents and young adults in eastern Europe. The incidence of reported STIs escalated in Estonia during the early 1990s but began decreasing later in the decade. Despite the welcome decline, Estonian STI rates remain higher than those of neighbouring Scandinavia and most European countries.[1 2] Estonian public health officials are particularly concerned about the STI problem given its potential to exacerbate the country's HIV/AIDS epidemic. This Baltic nation currently has the highest reported incidence and prevalence of HIV (1.1%) in the European region.[3]

Secondary prevention efforts, aimed at interrupting disease transmission, are dependent upon identifying and lessening barriers to STI services. Recognised barriers to STI services include system level barriers, such as long waiting times, cost, and inconvenient clinic hours[4]; societal barriers, such as the fear and stigma associated with STIs[5 6]; and interpersonal barriers, such as judgmental and discriminatory behaviour on the part of staff and providers.[7 8]

The recent development of nucleic acid amplification tests (NAATs) for home based diagnosis of several STIs has generated new research models for STI epidemiology. Surveys can now be done to assess probability samples of the general population rather than samples of clinic patients or other special populations.[9] There is evidence that home screening is an efficient method of reaching people,[10–15] yet non-response continues to be a concern with any home sampling approach. It is difficult to ascertain the degree to which non-responders systematically differ from responders with respect to infection rates, access to usual care, and risk behaviours.

Assessments have been conducted to determine the acceptability of home sampling and mailing specimens directly to a laboratory.[16] However, home sampling has not been tested or conducted in a post-Soviet society. This study answers the urgent need to understand barriers to STI prevention and identifies strategies for success in a population that may be inherently different from developed Western countries.[17] This qualitative study assesses knowledge about STIs, identifies perceived barriers to STI testing, and identifies strategies to enhance participation in an STI screening programme using home based testing.

METHODS

The study consisted of five focus groups formed to identify attitudes towards STI home sampling. The focus group method confers several advantages for studying this complex social issue:

- Produces a thorough review of perceptions, attitudes, and beliefs
- Provides social and cultural interpretations of health related topics
- Presents novel insights[18] and
- Promotes self disclosure even for taboo topics.[19 20]

Setting

The study took place from February to April 2005 among residents of Tartu, the second largest city in Estonia with a population of 150 000. Services for STI treatment are available in Tartu at little or no cost through the University of Tartu Medical School, a specialised outpatient clinic, a small non-profit clinic (youth counselling centre) and private clinics.

Participant selection

Participants were recruited using convenience sampling based on age (18–40 years), gender (male and female), and residency (Tartu city and county). Individuals were invited to participate through face to face and phone contact with one of the investigators. Male and female participants were assigned to separate focus groups and were drawn from several segments of the population to provide broad representation. Thus, the five focus groups were as follows: male and female graduate students at the University of Tartu,

Abbreviations: NAATs, nucleic acid amplification tests; STD, sexually transmitted disease; STI, sexually transmitted infections

male and female technical school attendees, and men living in a rural area.

Focus groups

A moderator used a semi-structured discussion guide that was developed from the literature and interviews with key informants. The guide addressed the following topics:

- Knowledge and perceptions about STIs
- Perceived barriers to home sampling, including logistical and personal barriers
- Feedback on factors that would encourage/discourage participation in home sampling
- Suggestions for methods to disseminate programme information to the public.

Each focus group session was audio recorded, and written notes were taken.

Analysis

The audiotapes were transcribed and a coding framework was developed to categorise the material according to themes.[21 22]

Ethics

Study methods and procedures were approved by the research ethics committee of the University of Tartu. Informed consent was obtained from every participant at the beginning of the focus group.

RESULTS

The median age of the 29 participants was 24 years (range 20–40). The focus group participants were grouped by gender to promote participant comfort (table 1). The discussions highlighted universal themes and unique perspectives. The saturation of information level was reached with five focus groups. Themes are used as the headings for the reminder results.

Part 1: Knowledge and perceptions of STIs

Recognising the problem

In all five focus groups, STIs were identified as an important issue that receives too little attention. The majority of participants indicated STIs were an important issue based on the high prevalence of STIs in Estonia. Two men's focus groups (rural, graduate student men) pointed out the emphasis on treatment versus prevention of STIs. In addition, the general awareness of STIs is poor. As one man in the rural group put it:

Table 1 Demographic characteristics of focus group participants

	Female	Male
Total participants (n/%)	13/44.8%	16/55.2%
Focus groups	2	3
Age (range)	20–40	20–40
Employment (n/%)		
Full/part time	11/84.6%	9/56.3%
Other	2/15.4%	7/43.7%
Marital status (n/%)		
Never married	6/46.2%	9/56.3%
Married	3/23.1%	4/25%
Cohabiting	4/30.7%	3/18.7%
Economic status/income* (n/%)		
Poor	2/15.4%	–
Satisfactory	4/30.8%	8/50%
Good	7/53.8%	8/50%

*Self rated.

- ''Acknowledgement of the disease is reached only when it affects a person or someone in his/her close peer group.''

The focus groups believed that proactive education efforts are ''non-existent.'' Further, the rural men indicated that awareness education should begin at young ages when principles, value orientations, and behaviour models are formed. In one rural man's words:

- ''Current preventive methodologies underestimate the sexual activity of the youth!''

While one third of the participants had a friend or acquaintance with an STI, many deflected the problem and were reluctant to discuss STIs with peers. For example, two participants stated:

- ''STIs are widely distributed, [but] the true extent of the problem is unknown as people are afraid to talk about it.''
- ''Syphilis has always been a disease of [the French, Spanish and other] neighbours.''

Knowledge of STIs, including asymptomatic disease

The overwhelming majority of participants (27/93.1%) recognised HIV/AIDS as an STI. Approximately one third recognised syphilis and gonorrhoea as STIs (20/69.0% and 19/65.5%, respectively), while only half recognised genital herpes and chlamydia as STIs (15/51.7% and 15/51.7%).

Participants were able to accurately list several symptoms of STIs. The most frequent subjective symptoms associated with STIs were pain in the genital area (16/55.2%), discharge, and itching (both named by 13/44.8% participants). One third of male respondents did not know any symptoms indicative of STIs in men or women, and nine respondents (all women) were unaware that STIs could be asymptomatic.

Besides inconvenience, other adverse consequences of STIs were identified: infertility (12/41.4%), general weakness and ill health (8/27.6%), emotional stress and psychosocial problems (7/24.1%), and death (3/10.3%).

Perceived barriers to STI testing and care

- ''I would be afraid and ashamed. People will point a finger [at] me!''

The major themes emphasised by each focus group were public stigmatisation and privacy issues. Other concerns included time constraints and long waiting lists for medical appointments. Multiple participants indicated that having an STI is widely associated with delinquent sexual behaviour and a general immoral lifestyle. Educated participants tended to link STIs with lower education levels, poorer living standards, and generally less interest in health. One male graduate student commented:

- ''The everyday fuss of life limits time for economically insecure people to pay attention to their personal health, and they are less thoughtful in the interactions with others about their health.''

Confidentiality was a universal concern as well. Lack of trust in anonymous STI testing was stressed in graduate student men's group. As one of the participants said:

- ''Trust in the professionalism of the medical staff and obvious reliability can alleviate negative perceptions of STI testing.''

Part 2: Views about home sampling for STIs

Barriers to home sampling

Valuing health

''If a person already has an STI, (s)he won't participate in the home screening,'' doubted a technical student man. Women perceive themselves as more thoughtful about health and one of the technical school women suggested:

- ''The STI screening campaigns should [target] girls and women, who are by nature more careful about their health, and could also persuade their partners to get tested for STIs.''

Confidentiality

Confidentiality of data was an important concern emphasised by all focus groups. Members thought that participation in a home sampling programme depended heavily on explicit, believable procedures to protect confidentiality. People are suspicious about giving sensitive information to anonymous people. As a rural man explained, the common practice is to only entrust health issues to a very close circle of people.

- ''So why should I give out extremely delicate personal data to a rather anonymous receiver?''

The geographical context of interactions was also emphasised. In the rural men's focus group and both women's focus groups, closed rural communities were considered potential liabilities to the success of home sampling. People are afraid of becoming stigmatised when they take the test package to the village post office, where everybody knows each other.

Time effects

People are always in a hurry and the everyday schedule does not accommodate dealing with secondary health issues. As a man from technical school emphasised:

- ''People do not want to take extra responsibilities such as participation in the survey.''

Women from technical school perceived that men were generally busier and therefore less inclined to take part in a survey. However, the convenience and comfortable setting of the home sampling method was praised in four of the focus groups. One graduate student female suggested specific steps to encourage participation:

- ''Supplying detailed description[s] of how to carry out the testing, where to take the sample, as well as telephone numbers and addresses to ask additional information should all have an encouraging effect on the receivers of the offer to participate in home screening.''

Emphasise benefits of participation

Focus group members underscored the importance of communicating the benefits of home sampling in any communications to the public. In the introductory letters, successful Western European home sampling surveys should be highlighted. These societies are highly regarded in Estonia, according to one male graduate student. The participant's contribution to understanding disease in the region should be recognised. In addition, the opportunity to utilise an innovative health testing method is noteworthy, according to both women's focus groups. Female graduate students suggested that highly educated individuals would be intrigued by the innovativeness of home sampling and the successful outcomes in Western Europe.

Suggestions for disseminating study materials to the public

All focus groups pointed out the importance of publicity before mailing out test kits. This publicity would help create a general awareness of STI issues, and the urgent need for detection and treatment. Focus groups understood that the media has a significant role in public perception of STI prevention and treatment. As a female graduate student explained,

- ''The publicity would create an affirmative brand, as well as a constructive discussion around the existence of STI, their treatment and prevention.''

Focus groups suggested that less educated people are particularly influenced by public opinion. The rural men stressed that the aim of publicity should be to make potential participants feel privileged to have the opportunity to take a test.

The graduate student men astutely suggested that ''a one time approach to home screening promotion might not be as successful as a larger STI awareness building campaign that also embeds the innovative possibility of home sampling.'' As a female technical student echoed, ''the doctors create the trust in people,'' but celebrities could draw more attention.

- ''Using pop idols such as musicians or artists in promoting STI testing or deliberating on the health concerns in general would be the most effective way to reach especially younger populations.''

DISCUSSION

Sexually transmitted diseases have been recognised as major public health problems in many countries. Regardless of medical advances, STIs continue to pose a threat to the health and welfare of individuals owing to their substantial morbidity, associated mortality, and disproportionate burden upon women and marginalised communities. The effective prevention and management of STIs are among the cornerstones of HIV control. Recent studies conducted in Estonia describe high rates of sex risk behaviour and inadequate knowledge regarding prevention of disease transmission.[23] These factors portend an exacerbation of the HIV epidemic unless public health professionals remove barriers to STI testing and treatment. Recognition and resolving barriers to STI testing, screening, and access to services are important public health goals.

Qualitative research has demonstrable utility in the field of STIs and HIV/AIDS research, where many of the social phenomena being studied are personal and private.[24] We applied these methods to understand the target population and to describe the context for a potential new approach using home sampling for STI testing.

This study has several limitations that preclude generalisation. Convenience sampled focus groups involve selection bias and ought not be considered a representative population sample in the statistical sense. Still, we believe the insights and perspectives expressed by study participants suggest certain policy directions that bear on healthcare access.

The focus groups identified knowledge deficits and generated crucial directional information for STI home sampling. Our respondents confirmed many educational deficits identified by other studies, especially the asymptomatic course of STI infections. Our focus groups revealed specific, sizable gaps in STI knowledge. The misperception of STIs as ''symptomatic'' and the assumption that STIs happen to ''other people'' suggest the need for education is great. Reversing these perceptions is of the utmost importance.

Key messages

- Qualitative research has demonstrable utility in the field of STIs and HIV/AIDS research
- The misperception of STIs as ''symptomatic'' and the assumption that STIs happen to ''other people'' suggest the need for education is great
- The fear of enforced disease control methods coupled with the current stigmatisation of STIs creates a serious challenge for STI prevention and treatment efforts
- Successful STI prevention programmes must address a number of challenges, including disease stigmatisation and privacy protection

Most importantly, stigmatisation and confidentiality issues need to be addressed up front and in detail in order to successfully recruit participants. Although the media have had limited success recruiting young adults for an STI test in the past,[25] we believe they can have a substantive role in the dual challenge of reducing stigmatisation and educating the public by imparting positive, encouraging examples, and engaging knowledgeable, trustworthy spokespeople.

These barriers will be difficult to overcome given the dramatic socioeconomic changes that Estonians have experienced. The fear of enforced disease control methods from the past coupled with the current stigmatisation of STIs creates a serious challenge for Estonian STI prevention and treatment efforts. Provided privacy concerns are addressed, home sampling would allow Estonians the opportunity for early detection and treatment with convenient testing, and public health officials the ability to capture valuable STI incidence and prevalence data.

CONTRIBUTORS

All authors were involved in development of the study protocol. The focus groups were carried out by AU and KK; AU drafted the first version of the paper; KK and LAM commented on following drafts; AK edited the manuscript.

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