**Exploring access and attitudes to regular sexually transmitted infection screening: the views of young, multi-ethnic, inner city, female students**

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**ABSTRACT**

**Background**

Low uptake of sexually transmitted infection (STI) testing by young people is a major public health problem worldwide. The aims of this qualitative, community-based study were to explore access and attitudes to STI screening in high risk, young, ethnically diverse female students.

**Methods**

Qualitative semi-structured interviews were conducted at an inner-London further education college with 17 women aged 16-25 years. **Results**

The women wanted convenient, regular STI testing and perceived this to be responsible behaviour. However, they doubted the maturity of their peers who were unlikely to view themselves as candidates for testing; and feared the perceived stigma associated with testing. This was reflected in their preference for confidential testing. Despite attending their general practice for non-sexual health matters, most did not consider this option for STI testing. However, the long wait in specialist clinics was an important barrier. Many younger participants would not want postal sample kits sent to their homes. We found dissatisfaction with sexual health education.

**Conclusions**

STI screening for underserved groups such as young sexually active ethnically diverse female college students needs to be confidential, convenient, easily accessed, and offered in ways that allows them to consider themselves as candidates for such screening without fear of social stigma. Family doctors should be aware that many young women do not perceive primary care to be an option for STI screening and could consider ways of advertising these services. Policy makers and health commissioners should be aware that clinic waiting times and lack of education remain barriers.

**Key words: (MeSH headings)**

Qualitative research, sexually transmitted infection, women’s health, ethnic groups, education.

**BACKGROUND**

Sexually transmitted infections (STIs) are a major international public health problem[1].It is estimated that nearly one million people worldwide acquire an STI every day[2]. In England, the prevalence of chlamydia in sexually active women aged 16-24 who get themselves tested is around 8%[1]. Untreated chlamydia infections can spread to the pelvis causing pain, infertility and increased risk of ectopic pregnancy[3].

Many countries have provision for STI screening. In England the National Chlamydia Screening Programme (NCSP)[4] offers free, yearly opportunistic screening to men and women aged 15-24 years. However, overall uptake remains low. It was 26% in 2012-2013[5] which is below the 35% level estimated to reduce prevalence.

Dixon-Woods et al have argued that the access and utilisation of health services by underserved groups can be understood through the synthetic construct of ‘candidacy’[6]. This describes the dynamic process between individuals and the health services in determining their eligibility and take up of services. Recognition of candidacy for services is iterative and subject to social influences and contexts. Thus individual decisions to get tested for STIs may be influenced by health beliefs, knowledge, previous experience, available services, attitudes, ability to act on beliefs and perceptions of prevailing peer or societal norms[7-13].Despite the pervasiveness of sexual imagery in the media, STIs remain a stigmatising condition[14].

To date, many qualitative studies of STI screening have focussed on participants already attending health care facilities[7, 8, 10, 11, 15-18]. Focusing solely on this population could represent potential bias in the literature, especially if the goal is to reach those who never successfully access STI screening. Indeed, the National Chlamydia Coalition 2011 report identified an evidence gap concerning those who have never, or infrequently, attended screening[19]. The aims of this qualitative, community based study were to explore access and attitudes to STI screening in high risk[20], young, ethnically diverse female students recruited outside of the healthcare system.

**METHODS**

**Setting**

To ensure a wide range of participant ethnicities[21] and socio-economic backgrounds we selected an inner city further education (FE) college with approximately 14,000 students. FE colleges provide both academic and vocational courses for students aged 16 and above. Recent analysis of baseline data from the POPI (Prevention of Pelvic Infection) chlamydia screening trial[20] showed that 11% of 760 sexually experienced female FE college students aged <25 had at least one STI*,* highlighting the importance of STI screening in this potentially under-served population.

**Inclusion and exclusion criteria**

Eligible students were female and aged 16-27 years as we needed data from this age group to inform further research[20]. For pragmatic reasons, we excluded those who did not did not feel their English was fluent enough to participate..

**Sampling and recruitment**

Following permission from college staff, a female researcher, RN, recruited consecutive women aged 16-27 opportunistically from communal areas, visiting on five separate occasions on different days of the week and different times of the day. RN approached women in the canteen and common rooms, introduced herself and briefly explained the purpose of the interview. The sampling was semi-purposive and the researcher attempted to recruit women throughout the target age range and from different ethnic group (More structured purposive sampling was not possible due to the opportunistic approach). Each participant was given an information leaflet, and written consent was obtained. Interviews lasted between 20 and 60 minutes and were audio-recorded in a private room. As some of the younger women did not want to be interviewed on their own, we adapted the protocol to allow interviews in pairs. Participants were recruited until no new themes were identified in either interviews or analysis of transcriptions to ensure that data saturation was achieved. Participants received a £10 honorarium.

**Qualitative semi-structured interview methodology**

We chose a qualitative methodology in the interpretive tradition[6] using semi-structured interviews and a topic guide (Table 1). This allowed confidential in depth exploration of potentially sensitive and personal issues. We developed the questions by drawing on the literature and by discussion between the authors.

**Data analysis**

Audio-recordings were transcribed and checked for accuracy. Transcripts were read and re-read for familiarisation, coded and a thematic framework was produced[22]. This was informed both by a priori issues and emerging themes and refined in discussion with co-authors. Data were then indexed and charted to allow both case and theme analysis. In the analysis process, potential explanatory framing theories such as that of ‘candidacy’ [6], the theory of planned behaviour[23] and stigma[24] were discussed and tested against the data.

**Ethics**

This study was reviewed and approved by the Bromley NHS Research Ethics Committee as a substantial amendment to the ethics approval for the proposed POPI2 trial [12/LO/0855].

**RESULTS**

**Characteristics of participants**

Between January and March 2013 twenty-five women were invited to take part in the study. Three were ineligible (outside age range n=2, inadequate English n=1). Of the 22 eligible participants approached, 17 (77%) agreed to be interviewed and five declined citing time constraints/imminent exams. Recruitment ceased when thematic saturation was achieved. The mean age of participants was 19.9 years (range 16 to 25) and they self-assigned their ethnicity[21] as white 35%, black Caribbean 24%, mixed or multiple ethnic background 24%, black African 6%, Asian 6%, and other (Arab) 6%. For 8/17 (47%) English was not their first language. Participants were studying a range of courses including: media studies, access to biomedical sciences, access to nursing/midwifery, applied sciences, and health and social care.

**Themes**

Three themes emerged and are presented under the headings of: perceived value of getting tested, perceptions of others, and removing barriers to accessing screening. Where appropriate, we explored these themes with reference to Dixon-Woods candidacy theory [6].

**Perceived value of getting tested**

STI testing was universally perceived positively: discovery and treatment of an STI was beneficial. There was awareness that infections could be asymptomatic and of the consequences of untreated infections:

*“Sometimes it has no external signs and no pain, and when pain or external signs come up it’s really not early enough...”* (IDN7, aged 24, other white background)

*“My main concern is to cause infertility, I’m so scared about this, because I have this in my mind that…I’m infertile...”* (IDN16, aged 20, other white background)

Candidacy theory highlights the importance of being able to interpret and evaluate symptoms and the need for routine testing to be able to negotiate access to the right care. Education is an essential component of this. In line with this, many of the participants felt that more should be done in schools to educate young people about sexual health, believing that many lack awareness and acquire knowledge elsewhere:

[Did you receive information in school or college?] *“No-thing, nothing.…TV, you can only get it from TV, you understand. And right now in school, like nowadays kids it’s not about even young, teenage, it’s about kids you know, they start having sex when they’re 13...”* (IDN13, aged 17, black African)

*“With me, if I see that something’s wrong I always go to the internet and make my research”* (IDN17, aged 23, other white background)

Participants considered it crucial that the information appears relevant, as attitudes may change during young adulthood. Responding to the specific cultural, socio-economic, gender and age-related needs of target groups for health interventions is a component of candidacy theory.

*“The problem is some of the risks because they’re long-term…for instance infertility, teenagers don’t necessarily think of it. So you do need those sort of almost more shock tactic ones... these are the effects of gonorrhoea where it’s absolutely disgusting. I think those would work more because I remember at fifteen I didn’t want kids; the fact that I could become infertile it didn’t make a blind bit of difference to me because I didn’t want kids. At twenty I’m thinking, ‘ooh in a couple of years I could start a family.’”* (IDN2, aged 20, other mixed ethnic background)

In addition information needs to be accessible, user friendly and free from jargon:

*“I’d be like “Really? Do you think I’m going to sit here, like really? Am I going to read this? I don’t even read my course work..!”*  (IDN6, aged 18, other white background)

Several women also mentioned that testing would allow them ‘peace of mind’:

 *“…If you’re not staying with that one partner. But even when you’re with that one partner they could still be with someone else, so still get checked.”* (IDN4, aged 17, black Caribbean)

*“I’m thinking I really should get screened again because love him to bits though I do, I don’t know where he’s been…”* (IDN2, aged 20, other mixed ethnic background)

Unwanted consequences of sexual health screening were perceived to be few, but many women acknowledged that some may fear a positive result:

*“Some people don’t like to know their results…they’d rather die…so it’s something like that, just scared of knowing what you’ve got.”* (IDN4, aged 17, black Caribbean)

**Perceptions of others: what will other people think about me getting tested?**

Many of the young women believed that their mature, positive attitude to STI testing would not be shared by their friends and families. Participants feared having their identity ‘tainted’ by the need to get tested. This could deter young women from seeing themselves as candidates for testing. Parents were an important group thought likely to disapprove and specific cultural considerations were raised by several young woman:.

*“It depends on the age range and the maturity range I think because now at twenty I don’t give a damn and I think my parents would be quite happy that I’m getting screened. But eighteen year old me did not want my parents knowing about any of it… sex and parents just don’t go together, they don’t”* (IDN2, aged 20, other mixed ethnic background)

 [When discussing being offered an STI test by her general practitioner (GP)] *“And my mum took offence… ‘What are you trying to say, my daughter sleeps around?’... if your daughter is seen using that* [the self-taken swab] *you will be chucked off your balcony…”* (IDN6, aged 18, other white background)

Potential embarrassment in front of peers was important when considering a college based STI screening programme such as NCSP outreach, emphasising the importance of ‘normalising’ testing behaviour in this group:

*“Because people in college, not everyone* [is] *grown up yet, so they see something and they talk”* (IDN10, aged 18, other white background)

 *“Because I don’t know if people won’t feel comfortable to go and pick up one* [a self-taken swab] *in front of everyone..”* (IDN9, aged 17, Arab)

 *“They’ll be like ‘Okay why is she looking at that? Has she got an STD?’”* (IDN6, aged 18, other white background)

Two participants identified attitudes of some healthcare professionals as being a deterrent to putting themselves forward for STI testing. The interaction between those accessing health care and those providing the care is explored extensively in candidacy theory with evidence suggesting that people are particularly unwilling to use services they perceive as hostile or insensitive:

*“It was horrible, they were so judgemental…Like they would say if you’re pregnant and you lie about your address and that like they’ll get social services involved and they’ll tell your mum.”* (IDN4, aged 17, black Caribbean, mother)

*“It was very hard, because I’ve never had a sexual health disease, it was just a urine infection, but before they found out they even asked me, ‘Oh, would your boyfriend do an AIDS test, because maybe it’s AIDS’, and I was scared like, you know..”* (IDN16, aged 20, other white background)

**Removing barriers to accessing STI screening**

The importance of an easily-accessed, competent service to facilitate testing, perhaps backed by text reminders, was a factor mentioned many times.

*“I knew I could get screenings from the college but it was just remembering to do it. So if there was a sort of set-up with advertising and with reminders and things, that would be really helpful because I have a memory like a leaky sieve.”* (IDN2, aged 20, other mixed ethnic background)

While most participants were happy to see their GP for non-sexual health related matters, their confidence in primary care did not extend to sexual health testing with almost all participants reporting that they go straight to a sexual health clinic, even for a routine check-up. Many did not perceive the GP to have sufficient expertise in this area. In order to present themselves as candidates for testing, it helps if people believe the service they are accessing is of high quality. Young women particularly valued the rapid testing, expert care and free treatment available in the clinics:

*“Me, I would advise them to go to sexual health… ‘cos sometimes you see your GP they (just) refer you to sexual health.”* (IDN13, aged 17 black African)

*“Because sometimes, when you go to a GP, they don’t really solve your problem, so that’s why I don’t go often… so I go to the clinic, even though it takes long, they do their tests and give me the medicine.”* (IDN16, aged 20 other white background)

However, when discussing testing at a sexual health clinic, the long wait to be seen was identified as an important barrier by many participants. Being unable to make appropriate logistic arrangements can reduce the chance of a person putting themselves forwards for testing and this may be a particular challenge for young adults to negotiate:

 *“… I wanted to go, but I’ve got a child so they would sit in a clinic all day, well for a couple of hours with a child it’s a bit...stressful”* (IDN12, aged 23, black Caribbean)

*“The good things about clinic is that they always know what to do, they know like yeah. But the bad thing is the waiting, I just can’t put up the wait ‘cos I’ve places to go...”* (IDN3, aged 16, black Caribbean)

While the convenience of a postal sample kit was identified, the risk of the kit being opened by a family member was seen as a major drawback, highlighting the potential dissonance between what health care providers believe to be appropriate and the realities of being a young adult:

*“I know people that their parents open their mail… that will make me feel uncomfortable... especially that a lot of parents doesn’t know that their daughter is active sexually.”* (IDN10, aged 18, other white background)

**DISCUSSION**

**Principle findings:**

The women wanted convenient, regular STI testing and perceived this to be responsible behaviour. However, they doubted the maturity of their peer group who were unlikely to consider themselves as candidates for such testing. All feared the stigma associated with people knowing they were being tested for STIs. This was reflected in their preference for confidential testing. In addition to the perceived stigma of STI testing, the long wait in sexual health clinics was an additional barrier. Very few had considered accessing STI testing in primary care. Many younger participants would not want postal sample kits sent to their homes. We found dissatisfaction with formal sexual health education.

**Strengths and weaknesses:**

Recruitment from an inner city educational setting allowed access to a relatively high risk, hard to reach group of sexually active young women, including 30% of black ethnicity[25] and two young mothers. Over 75% of those approached agreed to take part strengthening the transferability of our findings to this, and similar, populations. Allowing interviews to be conducted in pairs encouraged the participation of teenagers who might have otherwise refused. We were able to obtain frank opinions on sensitive topics from women in a high risk demographic for STIs[20, 25]. Recruitment from an education setting allowed inclusion of women not necessarily engaged with health services. It provided new insights on access, including the fact that these young women did not see primary care as a place to go for a sexual health check. Findings contribute to national knowledge regarding STI testing[26].

The main limitation is that all the young women sampled were attending an inner city further education college and results may not be generalisable to those not in education or employment, or from a rural setting. The sample was small, but similar in size to some other comparable studies[12] and thematic saturation was achieved. Recruitment was opportunistic but the age and ethnic range of the sample broadly reflects the college population. Although many participants were studying health related subjects, their views were similar to those of women studying other subjects. Although we were unable to interview those with insufficient fluency in English, nearly half of the participants did not speak English as their first language.

Interviewing in pairs may have influenced the views obtained. However, opinions expressed by those interviewed with peers broadly reflected the views obtained from individual interviews. Indeed, we would not have been able to capture these opinions at all had we not been prepared to adopt this pragmatic approach when interviewing young women about a potentially sensitive topic.

Participants received a small honorarium for their time, which they were informed about only after they had agreed in principle to participate. This may have influenced their responses but the amount was small and we believe the young women perceived this more to be a token of appreciation for their time rather than payment for giving any particular answer.

**Comparisons with other studies:**

Previous qualitative studies in the UK and Ireland have generally focused on factors influencing uptake of opportunistic chlamydia testing[7-10, 16, 18]. The desire of young women to maintain a ‘good girl’ public image reflects both Goffman’s theory of stigma[24] and other reports[7-11, 13, 14]. Our findings on barriers to testing are in line with reports from in North America, suggesting international relevance[27-32]. Problems identified with postal screening may help to explain the poor uptake of systematic postal screening for chlamydia in England[33].

**Conclusion:**

Our findings are an important contribution to the literature on access to healthcare for under-served groups. They give insights into how an at risk group of young women view their candidacy for sexual health screening services. STI screening needs to be offered in ways that allows them to consider themselves as candidates without fear of social stigma. However, this is a small sample limiting generalizability. Further, larger studies may be needed to confirm the findings in other age groups and settings.

The opinions of these hard to reach young women also have implications for those in charge of sexual health education, and for those commissioning screening programmes[34]. Lack of education and difficulty with access are important barriers to STI screening. The young women wanted more formal education on sexual health and for information to be relevant, clear and non-stigmatising. They also wanted STI testing to be convenient and maintain their anonymity. General practitioners may be unaware that many young women would go to a sexual health clinic rather than attend their practice for STI testing. Practices which offer sexual health checks might consider better ways of alerting young people to their availability and confidentiality, including posters, information on their websites and text-message reminders.

Policy makers should know that the complaint about long waiting times in sexual health clinics is common to both the US and the UK with little apparent change over the past 10 years[27, 28, 35]. Increased staffing, on-line appointment booking systems and evening and weekend open access clinics are being explored. Although many women felt that testing in an education setting was convenient, it must be extremely private. Information or testing kits could be made available in toilet cubicles for example. Despite its perceived economic and logistic advantages[33] postal screening was unacceptable to some teenagers living at home. This challenges a ‘one size fits all’ approach to sexual health service provision.

**LIST OF ABBREVIATIONS:**

STI: sexually transmitted infection; NCSP: National Chlamydia Screening Programme; PID: pelvic inflammatory disease; UK: United Kingdom; POPI: Prevention of Pelvic Infection; FE: further education; TPB: Theory of Planned Behaviour; GP: general practitioner; STD: sexually transmitted disease.

**COMPETING INERESTS:**

The authors declare that they have no competing interests.

**AUTHORS’ CONTRIBUTIONS:**

RN designed the protocol with input from PO and VD. RN collected and analysed the data, again with significant input from PO and VD. RN prepared the manuscript. All authors read and approved the final draft.

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**TABLE 1. INTERVIEW TOPIC GUIDE**

|  |  |
| --- | --- |
| General health | How would you describe your health overall? Do you attend your general practitioner (family doctor)/clinics/hospital?What health care options are you aware of for people your age locally? |
| Sexual health knowledge  | What do you know about sexually transmitted infections?How did you acquire this knowledge?  |
| STI testing  | Have you even been tested? How did you access testing?What were your experiences of testing?How would you advise a female friend who was worried about her sexual health? |
| Opinions of more frequent STI screening  | How would you feel about more regular testing (e.g. 6 monthly)Where/how would you like to be tested? What factors would make you more or less likely to be tested?  |