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Changes in Sexual Behaviour Focusing on Condom Use in STD Clinic Attenders in Göteborg, Sweden, from 1989 to 1994 – a Questionnaire Survey

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During the 4 years from 1989/1990 to 1994 an increase in the use of condoms was registered. A high frequency of condom failures was reported and probably reflects inappropriate use. More efforts should be made to educate people how to use the condom. The impact of alcohol intake as a risk factor for unsafe sex seems to be significant and should also be stressed in educational safer sex programmes. STD patients are a well-motivated group for information about safer sex and condom use. Health workers in STD clinics have an important task in this context. ***Keywords: Safer sex; health workers; HIV; alcohol.***

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Since the late 1980s, there has been continuous information about HIV and also other STDs in the Swedish media. The National Institute of Public Health has organized campaigns aiming at increased condom use and stressing the risk of HIV infection when having sexual contacts abroad. Although difficult, it is important to try to evaluate the effects of these interventions. A decrease in the incidence of STDs may reflect altered sexual behaviour but may also be influenced by many other factors. Patients attending an STD clinic represent a risk group for STDs, including HIV, and seem to be a suitable group for studying changes in sexual behaviour. The aim of our study was to evaluate the level of knowledge about STDs and sexual behaviour, manifested as condom use in an STD population, and to determine if there were any changes during the 4-year period from 1989/1990 to 1994.

PATIENTS AND METHODS

Heterosexual men and women attending the STD Clinic at Sahlgrenska Hospital were invited to answer a questionnaire anonymously during two periods, 15 November 1989 to 15 April 1990 and 1 March to 31 July 1994. Patients attending for genital dermatological diseases who were not sexually active were not invited to participate.

The design of the questionnaire was exactly the same during the two study periods. The first part of the questionnaire was about knowledge of the spread of STD, the following 16 questions were about condom use and finally some questions about alcohol and sex were included.

Routine examination at the clinic included a test for *Chlamydia trachomatis* and blood tests for HIV and syphilis. Since the questionnaire was anonymous, the STD diagnosis could not be correlated to the answers of the questionnaire.

The chi-2 test was used for comparison between study groups in 1989/1990 and 1994 and between men and women.

RESULTS

The questionnaire was completed by about 90% of the attenders to whom it was delivered during both periods. In the first study period, 1989/1990, the questionnaire was answered by 578 attenders, 143 women and 435 men, and in 1994 by 570, 166 women and 404 men. Analysis of the drop-outs was not possible since the questionnaires were answered anonymously.

Age distribution

In 1989/1990 the mean age was 24 years (range 16–65 years) and in 1994 the mean age was 25 years (range 17–68 years). As shown in Fig. 1, most patients both in 1989/1990 and 1994 were in the age group 20–30 years. There were significantly more young people in 1989/1990 compared to 1994.

In the following presentation the results of women and men are reported together, except when they differ.

Knowledge about STD

In both 1989/1990 and 1994, up to 90% were aware of the fact that STDs are transmittted by mucosal sexual contact and 85% knew that a condom protects against both STDs and pregnancy. There was no difference between men and women.

Condom use

In both groups, 1989/1990 and 1994, 90% were of the opinion that it was important to use a condom when having casual sexual contacts.

In response to the question if knowledge about risk of HIV had changed their own sexual behaviour with respect to the use of condoms, 51% answered yes in 1989/1990 and 62% (60% of the men and 69% of the women) in 1994.

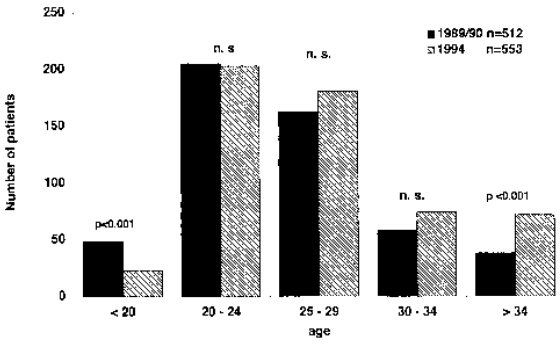

Fig. 1. Age distribution of interviewed STD clinic attenders 1989/90 and 1994.

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Table I. *Use of condoms with a casual partner in 1989/1990 (n=501) and 1994 (n=526)*
Figures show percent of both men and women

	1989/90	1994	
Never	14	7	$p<0.001$
Occasionally	35	28	$p<0.05$
Often	28	34	$p<0.05$
Always	24	31	$p<0.01$

Table II. *Reasons for not using a condom*
Data from both groups

Alternatives	Women $n=153$	Men $n=445$	
Embarrassing	28%	12%	$p<0.0001$
Technical difficulties	26%	18%	$p<0.03$
Reduced pleasure	41%	71%	$p<0.0001$
Too expensive	12%	4%	$p<0.002$

The frequency of condom use is shown in Table I. Although there is a significant increase in the use of condoms, 28% of the women and 38% of the men never or seldom used a condom in 1994, when engaged in sex with a casual partner.

Female attenders were asked if they carried condoms with them regularly and 42% answered yes in 1989/1990 and 52% in 1994.

Reasons for not using a condom were different for men and women (see Table II). Since there was no significant change from 1989/1990 to 1994, the data are combined for both groups.

The proportion of persons who had never experienced condom failure decreased from 57% to 47% in 1994 ($p<0.01$). One question was about condom failure during the most recent intercourse with a casual partner, and in 1989/1990 8% reported that the condom had ruptured and 3% that it had slipped off, compared with 10% and 5%, respectively, in 1994.

Alcohol

In both groups, 82% (79–85%) were of the opinion that alcohol consumption was always or often involved when they had casual sexual contacts. In both groups, around 90% stated that influence of alcohol was a common reason for not using a condom when having casual sexual contact. In response to the direct question if this had happened to the patient himself/herself, 60% admitted to this in 1989/1990 as well as in 1994. Alcohol intoxication of such a magnitude that the patient had difficulties remembering what had happened during the sexual contact was reported by 17% of the women and 28% of the men in 1989/1990 and by 21% of the women and 35% of the men in 1994.

DISCUSSION

In Sweden the spread of HIV has hitherto been limited. From 1990 to 1994 196 new heterosexually transmitted cases of HIV were reported.

Chlamydia infections have decreased from 38,000 cases in 1987 to 14,000 in 1994. This might reflect altered sexual behaviour or be an effect of more intense screening and contact tracing. The trend for condylomata has not been the same, which could indicate different paths of transmission or less effective protection by condoms for human papilloma virus than for the bacteria, *Chlamydia trachomatis*. Most STD clinic attenders in Sweden are between 20 and 30 years old. The lower proportion of patients under 20 years attending our STD Clinic in 1994 compared to 1989/1990 could be explained by the creation of new Youth Clinics in our city.

Swedish studies of teenagers indicate an increased awareness of STDs, including HIV, although this knowledge has not hitherto led to measurable changes of sexual behaviour (1, 2). It is a general experience that there is a discrepancy between theoretical knowledge about STD risk and actual behaviour. There are studies from other countries indicating a change in sexual behaviour, including increased use of and a more positive attitude towards condoms. From an STD Clinic in London, Evans et al. (3) reported an increased frequency of condom use in the context of casual sex from 13% in 1987 to 44% in 1995. In Australia, Rosenthal et al. (4) reported an increase of condom use among students having casual sex from 1989 up to 1994, when 72% of the interviewed men and 55% of women reported regular condom use when having casual sexual contacts.

We wanted to analyse the reasons for not using condoms. Both men and women stated reduced pleasure as the most frequent drawback. It is doubtful whether this explains the real reason for not using a condom. The experience we have from individual counselling is that when this subject is penetrated more thoroughly the answers go beyond this explanation. Many patients stress the interruption of the sexual act in order to put on the condom as a major disturbance, especially when having sex with a new partner. The fact that as many as 10% reported condom failure during the most recent intercourse is disturbing and warrants attention. The quality of Swedish condoms is considered to be high and samples are regularly tested. The high figure for condom failures should not be generalised since the studied population is a selected group of patients and in the case of some of them the condom failure may have been the reason why they attended the STD clinic for a check-up. The frequency of rupture of condoms varies considerably in different studies from 0.5 to 30% (5–7). The most likely explanation for condom failures is inappropriate use. In Sweden, lots of condoms are delivered to people in connection with campaigns against STD /HIV. More efforts should be made to educate people how to use these condoms. Health workers in the STD clinics have an important task in this work. Although it has been convincingly shown in several studies (8, 9) that use of condoms reduces the risk of contracting STDs, it is important to stress that use of a condom is not synonymous with safe sex. The impact of alcohol intake as a risk factor for unsafe sex should be stressed in educational safer sex programmes and be included in the counselling of STD patients.

REFERENCES

1. Persson E, Jarlbro G. Sexual behaviour among youth clinic visitors in Sweden: knowledge and experiences in an HIV perspective. Genitourin Med 1992; 68: 26–31.
2. Andersson-Ellström A, Forssman L, Milsom I. The relationship between knowledge about sexually transmitted diseases and actual sexual behavior in a group of teen girls. Genitourin Med 1996, 72: 32–36.

3. Evans BA, Kell PD, Bond RA, MacRae KD. Heterosexual relationships and condom-use in the spread of sexually transmitted diseases to women. Genitourin Med 1995; 71: 291–294.
4. Rosenthal DA, Smith AMA, Reichler H, Moore S. Changes in heterosexual university undergraduates' HIV-related knowledge, attitudes and behaviour: Melbourne, 1989–1994. Genitourin Med 1996; 72: 123–127.
5. Golombok S, Sketchy J, Rust J. Condom failure among homosexual men. J Acquir Immune Defic Syndr 1989; 2: 404–409.
6. Boldsen JL, Jeune B, Madsen PC. Aspects of comfort and safety of condom. .Scand J Soc Med 1992; 20: 247–252.
7. Götzsche PC, Hörding M. Condoms to prevent HIV transmission do not imply truly safe sex. Scand J Infect Dis 1988; 20: 233–234.
8. Lindan C, Kegeles S, Hearst N, Grant P, Johnson D. Heterosexual behaviors and factors that influence condom use among patients attending a sexually transmitted disease clinic. San Fransisco. MMWR 1990; 39: 685–689.
9. Darrow WW. Condom use and use-effectiveness in high-risk populations. Sex Transm Dis 1989; 16: 157.