

It is Difficult to Make People Use Condoms – Or is it?

EWA LEJELIND¹, KJERSTIN LARSSON^{2,3} AND ANDERS STRAND¹

¹Department of Dermatology and Venereology, Uppsala University Hospital, ²Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Huddinge and ³Department of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden.

E-mail: eva.lejelind@akademiska.se



Chlamydia is the most common infection among the sexually transmitted infections (STI) included in Swedish law. A previous history of an STI is a strong risk factor for re-infection with chlamydia. The aim of this study was to elicit from patients their motivation for using condoms and for starting to practise safer sex more frequently, which reduces re-infection with chlamydia. A total of 100 patients diagnosed with chlamydia infection at the STI clinic received information about condoms and counselling, based on a motivational interviewing technique. At follow-up 6–8 months later by a telephone call from the medical social worker, in general, the patients used condoms more frequently and had sex with fewer partners compared with before. The re-infection rate with CT was 2.2%.

Chlamydia trachomatis (CT) is the most common infection among the sexually transmitted infections (STI) included in Swedish law under the *Communicable Diseases Act* (1). The prevalence of CT in different populations of young people (age range 13–23 years) in Sweden and the USA is 4.5–9.3%. Previous history of an STI is a strong risk factor for re-infection with CT, and studies from Sweden, UK and the USA report re-infection with CT in 12–13% of the study populations (2–4). Young people and adults aged 15–29 years account for 85% of CT infections. Untreated CT infection can result in complications such as epididymitis in men and inflammation of the uterus and Fallopian tubes in women. CT is the most common cause of ectopic pregnancy and infertility due to damaged Fallopian tubes (5). Despite this, in a Swedish youth population ($n=1,000$), age range 15–20 years, only 20% reported using condoms during sex with a partner (5, 6).

It is difficult to “make” people use condoms. We therefore aimed to develop new procedures to inform people about condom use and, with this objective, decided to study whether a motivational interviewing approach to providing information about condoms could increase condom use among visitors to a STI clinic and motivate the practise of safer sex.

Motivational interviewing

Motivational interviewing (MI) is a patient-centred method that aims to activate the patient’s own motivation to make behavioural changes. Simply giving patients advice to change is often unrewarding and ineffective. Discussion about change occurs in almost every branch of medicine and lifestyle habits. Patients often seem ambivalent or unmotivated, and clinicians try to advise them to change using a directing style, which in

turn generates resistance or passivity in the patient. MI is an alternative approach to discussing behaviour change, which is useful in various healthcare settings. It can improve a constructive practitioner–patient relationship and lead to better outcomes for patients (7).

MI involves helping patients to say why and how they might change, based on the use of a guiding style, clarifying the patient’s strengths and aspirations, and evoking their own motivation for change. The clinician refines their own listening skills and responds by encouraging change talk from the patient and promoting autonomy of decision-making (8). A systematic review including more than 70 studies found that MI outperformed traditional advice-giving in 80% of studies (9).

Study population

Visitors to the STI clinic in a University Hospital in Sweden who were diagnosed with CT infection were invited to participate in the study. A total of 100 patients (50 females, median age 23 years, range 17–35; and 50 males, median age 24 years, range 19–43) were informed orally of the study and included after informed consent was obtained. The proportion of men who had sex with men (MSM) was 12% and women who had sex with women (WSW) was 4%.

Table I. Number of diagnosed *Chlamydia trachomatis* (CT) infections at baseline ($n=100$)

Diagnosed CT infections, n	1	2	3
Females, n	39	10	1
Males, n	31	13	6

Table II. Number of partners and condom use during the 6 months before provision of information, n (%)

	Number of partners												Total	With condom n (%)
	1	2	3	4	5	6	7	8	9	10	11	12		
Females	11	14	8	8	1	1	1	2	2	1		1	169	16 (9.5)
Males	8	18	12	5	4	1			1		1		146	12 (8.2)

Methods

A manual based on MI was developed to facilitate provision of condom information and counselling. The information and counselling were delivered by a medical social worker at the STI clinic, who was experienced in this specific topic. The manual consisted of 10 questions regarding the disadvantages and advantages, as well as motivation and confidence, of using condoms. During counselling the patient was encouraged to be active and to confide why and how they practised condom use. In line with the MI approach and in order to strengthen the importance of protection, the social worker summed up the reasons for the importance of safer sex that the patients had articulated. Furthermore, the experiences and strengths that the patients believed would improve the successful practise of safer sex were summarized in order to strengthen their self-confidence. The patients also received a few condoms and written information about condoms and condom use.

Of the 103 eligible patients, 100 agreed to participate in the study. At baseline, 100 patients diagnosed with CT infection at the STI clinic received condom information and counselling according to the structured manual. Follow-up was performed 6–8 months after provision of the information, by a telephone call from the medical social worker. At follow-up, the patients were asked about number of sexual contacts and condom use during the last 6–8 months. They were also asked about re-infection with CT and all patients were offered a further CT test. Nine patients (4 women and 5 men) were lost to follow-up as it was not possible to contact them for the follow-up telephone call. The results are therefore based on baseline data for 100 patients (Tables I and II) and follow-up for 91 patients (46 females and 45 males).

Table III. Number of partners and condom use at baseline and follow-up

	At information (n=91)		At follow-up (n=91)	
	Females (n=46)	Males (n=45)	Females (n=46)	Males (n=45)
Partners, n (mean)	139 (3.0)	154 (3.4)	85 (1.8)	99 (2.2)
Using condom, n (%)	11 (7.9)	15 (9.7)	47 (55.2)	56 (56.5)

Table IV. Chlamydia trachomatis (CT) test at follow-up

	Females (n=46) n	Males (n=45) n
Number tested	23	18
Positive tests	1	1
Planned tests	1	3
Not necessary	21	23

Results

In general the patients used condoms more frequently after receiving the first information compared with before receiving any information. They also had fewer sexual partners during the 6–8 months of follow-up compared with 6 months before the first counselling session (Table III).

At follow-up, the 46 females had had sex with 85 partners and had used condoms with 47 of them. This can be compared with the first counselling session, when they had had sex with 139 partners and had used condoms with 11 of them. Condom usage for females therefore increased from 7.9% to 55.2%. For the 54 males, the corresponding results were that they had had sex with 154 partners during the 6 months before the first counselling session, during which they used condoms with 15 partners. At follow-up the males reported sex with 99 partners, and using condoms with 56 of them. Condom use for males had therefore increased from 9.7% to 56.5%. For females, the mean number of partners during 6 months decreased from 3.02 at the first counselling session to 1.80 at follow-up. For males, the mean number of partners decreased from 3.42 to 2.2. All patients were offered a new CT test. Two of these 91 patients had a new CT infection diagnosed (Table IV).

Of the 23 females who were tested for CT at follow-up, only one was found to be re-infected. One female who requested a test has not yet made an appointment. A total of 22 females were convinced that they did not need to be re-tested. Of the 18 men re-tested at follow-up, only one was found to be re-infected. Two men wanted to postpone the re-test to a later appointment and 25 men declined a re-test because they were certain that they were not at risk for re-infection.

Discussion

Of the 103 patients who were invited to join the study three refused due to lack of time. Thus, a total of 100 patients were included.

When a patient visits the clinic (perhaps because they are diagnosed with an STI) this is the optimal opportunity to reach them with information; the “teachable moment”. There is a

strong possibility that the patient will reflect on how they act, and perhaps decide to change their behaviour and practise safer sex. It takes approximately 20 min to deliver the MI-based condom information used in this study and, in view of the positive results, this is a time well invested.

In conclusion, this study of 91 patients indicates that MI is a successful method of delivering information and counselling about condom use. Condom usage increased from 8% to 55% for females and from 10% to 57% for males. The CT re-infection rate was as low as 2.2%, and patients had fewer sexual contacts in general.

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