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Impact of a school-based prevention programme on traditional and egalitarian adolescents' safer sex intentions

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The study assessed the impact of a school-based sexual risk reduction programme on adolescent's knowledge, need for information, problem-solving and communication skills, intention to talk about and to practise safer sex. The primary goal of working with adolescents in schools was successful, in that significant treatment effects occurred on knowledge, perception of skills and frequency of communication. The programme was not effective in improving intentions to use condoms. Evidence for the importance of social context aspects for safer sexual decision-making was found, since the impact of the programme differed for subjects differing in gender role attitudes.

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Introduction

Since the AIDS threat can only be fought when a large number of people change their sexual behaviour, attempts to change sexual risk behaviour have been undertaken. Adolescents and young adults are a group of special interest because they are sexually active and experiment with sex. Previous studies also evidence that once adolescents establish behavioural patterns, it is difficult to modify these patterns (Kumpfer and Turner, 1991). A number of HIV prevention programmes have been introduced in school settings, but results of their effectiveness are not always consistent (Kirby and DiClemente, 1994).

Early prevention campaigns were based on the assumption that awareness of the AIDS threat and knowledge about risk factors would result in behaviour change. In fact, they turned out to be ineffective in changing behaviour (Kirby *et al.*, 1991). In the literature which appeared in the late eighties and the early nineties a need for adequate theoretical and research-based sexual risk reduction intervention was stressed (see e.g. De Muth *et al.*, 1989; Memon, 1990). Recent programmes tended to be guided by theoretical models (Ross and Rosser, 1989; Kirby and DiClemente, 1994). The majority of these programmes are based on social-cognitive models. These models, amongst others the Health Belief Model (Rosenstock, 1974), the Theory of Reasoned Action (Fishbein and Ajzen, 1975), the Theory of Planned Behaviour (Ajzen and Madden, 1986), the Social Learning Theory (Bandura, 1986), the ASE-model (Kok *et al.*, 1991), and the Aids Risk Reduction Model (Kowalewski *et al.*, 1994) highlight the role of individual decision-making in sexual behaviour. According to social-cognitive theories (safer) sexual behaviour can be predicted by an individual's behavioural intention. The latter can be predicted by the individual's perception of amongst other things attitudes, social norms, self-efficacy, skills, vulnerability, and the benefits of safer sex and the barriers to it. Whether or not practising safer sex is

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only or mainly based on individual decision-making can however be questioned. An overview of the sexual history of subjects often reveals safe and unsafe sexual encounters within limited time periods by the same subject. Practising safe or unsafe sex is in fact a dyadic decision in which a male and a female are involved (Metts and Fitzpatrick, 1992; Abraham and Sheeran, 1993). Both sexual risk behaviour and protective behaviour are found to be related to the type of relationship and to the relational gender-power ratio (Holland *et al.*, 1992; Abraham and Sheeran, 1993). Condoms are found to be used less in stable relationships compared to casual relationships (Pilkington, 1994). Some of the more recent programmes aim at empowering individuals in dyadic negotiation processes and dyadic decision-making (see e.g. Kipke *et al.*, 1993). Programmes with an emphasis on assertive behaviour, problem-solving and communication skills training in the context of sexual behaviour offer a promising approach (Nangle and Hansen, 1993).

In this paper it is argued that in addition to the influence of individual and relational characteristics on safer sexual behaviour, aspects of the social context in which safer sex occurs are of importance. The decision to practice safer sex is at least to some extent influenced by normative beliefs about socially expected behaviour (see also Duck, 1993). According to Moore and Rosenthal (1992), important aspects of the social context of adolescent sexuality are permissiveness, double standards, sexual control and romance. The focus of this study is on the influence of expectations of permissiveness and double standards towards condom use on safer sexual behaviour. Both the male and female have their own positive or negative intentions as regards safer sex, perceive relational barriers or not *and* have ideas about expected male and female behaviour. Subjects can subscribe to a traditional gender-role script with dominant males and submissive females or to a more egalitarian script. It can be argued that both males and females who subscribe to a gender-power script are potentially at risk. According to Metts and Fitzpatrick (1992) females who subscribe to the traditional gender script, in which the male is sexually assertive and the female is shy, have to negotiate condom use from a weak position. Those females will have less control of the situation than females who do not subscribe to the traditional gender script. Another group at-risk are males subscribing to the traditional script in which the female is the caretaker of the (sexual) health of the dyad (Cohan and Atwood, 1994). These males feel indifferent to the AIDS threat and give full responsibility to the female partner.

This paper aims at exploring the impact of a 2-day school-based sexual risk reduction programme guided by social-cognitive theory and skills training on subjects subscribing to traditional and egalitarian gender roles. Since it was argued that safer sexual decisions are to some extent influenced by perceptions of socially expected behaviour, it is expected that subjects differing in gender role expectations, differ in intention in relation to safer sex. It is also expected that subjects differing in gender role expectations will have different information needs and that the programme impact will be different among subjects subscribing to traditional gender roles compared to subjects subscribing to egalitarian gender roles.

Programme effects will be assessed for four groups of subjects: (1) subjects with an intolerant expectation of both male and female condom-related behaviour, labelled "conservatives", (2) subjects who have internalised the traditional gender-role script with it being acceptable for males and unacceptable for females to carry and introduce condoms, labelled "traditionals", (3) subjects with inverse role expectations with it being acceptable for females and unacceptable for males to carry and introduce condoms, labelled "non-

traditionals", and (4) subjects with tolerant expectations of both male and female condom-related behaviour, labelled "permissives".

Programme planning and implementation

Although this paper focuses on the outcome evaluation, outcome analyses are integrated with process analyses in a broad planning framework of intervention development and implementation. The programme was first planned and constructed by the Belgian Family Planning Association in the spring of 1991. It was implemented in 11 schools during the school year 1991–1992 and evaluated in a pilot study among all the 11th and 12th graders (n=230) enrolled in the programme. The findings of this preliminary study resulted in some adaptation of the programme. The "final" version of the programme was implemented in 18 senior high schools and colleges during the school year 1992–1993 and evaluated among 698 youngsters.

The intervention consisted of a 2-day school-based AIDS prevention programme, conducted by a prevention worker from the Belgian Family Planning Association (see Table 1). Eleventh and 12th graders were taught in small classes of 10 to 15 students each. Topics included training in interpersonal problem-solving skills and safer sex negotiation; correction of risk perception; teaching of resistance to peer and environmental pressure; problem-solving in critical sexual situations; knowledge about contraception, AIDS and condom facts and attitudes. Training methods included group discussion, demonstration, rehearsal (role-playing), feedback with discussion and practice outside the programme site (subjects had to buy a condom).[1]

Methods

Research design

The overall design was a quasi-experimental pre-test post-test control comparison of 11th and 12th graders exposed to the programme with other 11th and 12th graders in similar classes where the programme was not offered. Eighteen schools participated in the study. Parental consent for minors was obtained in the standardised research protocol. Within each school, one class was assigned to receive the intervention and one class served as a control group. All students in each treatment class were scheduled to attend the programme sessions. Control classes were matched for grade and/or education level. No control classes implemented a programme similar to the intervention programme. Students were given the option of non-participation in any part of the project. None of the parents or students refused participation in the study.

A questionnaire was administered to classes of students during one 50-min class period at pre-, immediate post- (after 2 weeks) and delayed post-assessment (after 3 months). An attached letter from the research team described the purpose of the survey, and stated that participant confidentiality would be maintained through reporting of aggregate data only. Treatment- (n=315) and control-group (n=363) participants completed the pre-test questionnaire 1 week before commencement of the programme. A randomly chosen code

[1]The programme is available (in Dutch) from Erika Frans at the Belgian Family Planning Association, Meerstraat 138 B, 9000 Gent, Belgium.

was given for each participant so as to guarantee anonymity and to permit matching of participant responses over time. In the second week after programme termination all participants were presented a post-test questionnaire that was identical to the pre-test questionnaire. A delayed post-test questionnaire was completed 3 months after programme termination. Subjects completed again the same questionnaire. The evaluation component of the project was separated from the intervention component in order to minimise bias. Health education staff and regular school personnel did not participate in any part of the data collection.

Materials

The questionnaire consisted of six general sections: (1) demographic characteristics (sex, age, grade), (2) knowledge (of AIDS facts, condom use and contraceptives), (3) frequency of sex-related communication (about safer sex, AIDS, sex roles . . .) with peers (partner, friends and classmates), (4) skills (refusal skills, condom-related negotiation skills, partner selection negotiation skills and problem-solving skills in a critical sexual situation), (5) behavioural intentions in the next month (to engage in condom use, to practice safer sex by abstaining from sex, to practice safer sex through partner selection) and (6) behavioural measures (participation in sexual intercourse and condom use at first and last intercourse). Knowledge was measured using a true, false, don't know format. The knowledge of AIDS facts scale consisted of 17 items concerning all sorts of risk (anal intercourse, IV drug use) and supposed risks (e.g. mosquito bites). Knowledge of condom use was measured through eight items (e.g. you cannot use a condom twice, test a condom with water . . .). Knowledge of contraceptives consisted of seven items (e.g. about the use of the pill and about menses). Frequency of sex-related communication (24 items), skills (eight items), intentions (11 items) and need for additional information (30 items) were measured on 5-point Likert scales. Subscales were obtained through factor analysis with Kaiser normalisation and Varimax rotation. Reliability analysis for the subscales resulted in Cronbach's alphas ranging from 0·74 to 0·92.

Subjects

The sample consisted of a 17- to 20-year-old cohort from 18 schools. The study was conducted among 698 students (312 males, 359 females, from 27 subjects demographic

Table 1 *Curriculum highlights*

1. Meets the minimum demands for behaviour change (a 2-day programme with a duration of 12 hours)
2. Is pre-tested in a preliminary study
3. Integrates a programme of AIDS education and pregnancy prevention
4. Specific activities consist of group discussion, demonstration, rehearsal (role-plays), feedback with discussion and practice outside the programme site
5. Focuses on skills training in interpersonal problem-solving, safer sex negotiation, correction of risk perception, resistance to peer and environmental pressure and problem-solving in critical sexual situations
6. Emphasizes condom use
7. Is taught in small groups (maximum 15 subjects)
8. Is taught by trained health educators

data were missing) at pre-test. The mean age of the respondents was 19·1; 12% of the respondents were college students and 88% were high school students. Approximately 55% of the subjects reported having been sexually active within the previous year. The lifetime average number of sexual partners was 2·8. The mean age at first intercourse was 16·0 years.

About 471 respondents completed pre-, post- and delayed post-test completely, 227 cases were rejected because of missing data. Dropouts were primarily due to the loss of classes of students over time due to practical reasons (exams, practicals) and occurred in both the treatment and the control group. In order to evaluate the potential threat to internal validity, baseline scores on behavioural measures for treatment and control dropouts were measured. Chi-square analyses revealed differences between both groups of dropouts for experience of intercourse ($\chi^2(1)=7{\cdot}7$, $p<0{\cdot}05$) with more treatment dropouts having experience with sexual intercourse compared to control dropouts. Treatment dropouts and control dropouts did not differ in condom use at first intercourse (χ^2 $(1)=0{\cdot}1$) nor at last intercourse ($\chi^2(1)=0{\cdot}5$). Data analyses were conducted on the subjects who had correctly completed all of the assessment procedures used in the analysis.

Subjects were divided into four groups varying along permissiveness and gender-role attitudes. We presented subjects of both sexes with four situations describing a male and a female target and asked them to assess the level of appropriateness of the target behaviour (carrying a condom and introducing a condom) on a 5-point appropriateness scale. Subjects were first divided into two groups based on their scores with regard to the male target (subjects with a score lower than the median were labelled "non-permissive" for males and subjects with a score equal to or higher than the median were labelled "permissive" for males). The same procedure was then used with regard to the female target. As such, four groups were obtained: (1) subjects with a non-permissive attitude towards both male and female condom use, labelled "conservatives", (2) subjects with a non-permissive attitude towards female and a permissive attitude towards male condom use, labelled "traditionals", (3) subjects with a permissive attitude towards female and a non-permissive attitude towards male condom use, labelled "non-traditionals", and (4) subjects with permissive attitudes towards both male and female condoms use, labelled "permissives". Of all subjects, 36·3% (n=227) turned out to be conservative adolescents, 14·6% (n=91) were labelled traditionals, 6·2 (n=39) non-traditionals and 42·9% (n=268) permissive adolescents. Because the unequal distribution of subjects between the four groups may hamper between-group comparison, 100 subjects from both the first and the fourth group were randomly selected. The other subjects were withdrawn from further analyses. In the final matched dataset (n=330), baseline sex differences existed between the four groups (Table 2). More females than males belong to the traditionals whereas more males than females belong to the non-traditionals. No behavioural differences were found between the four groups.

To examine the equivalence of treatment and control conditions at baseline, a one-way

Table 2 *Demographic and behavioural profiles of the sample by gender-role group*

	Conservatives (n=100)	Traditionals (n=91)	Non-traditionals (n=39)	Permissives (n=100)	$p<$
Sex (% male)	43·4%	30·0%	64·1%	48·0%	0·005
Intercourse experience	45·4%	43·3%	50·0%	53·1%	n.s.
Condom experience	44·2%	49·0%	53·3%	44·4%	n.s.

(Treatment) multivariate analysis of variance (MANOVA) was performed on all treatment and treatment-related variables. No significant differences were found between respondents of the treatment and control group on any of the treatment or treatment-related variables (F=1·04).

Analysis

In order to examine programme effects for the gender role groups, a four way (Treatment × Testing occasion × Sex of subject × Gender Role Group) repeated measures multivariate analyses of variance (MANOVA) was conducted, with sex of subject, gender role group and treatment as between-subjects variables and testing occasion as within-subjects variable. Given the limited number of subjects, separate MANOVA's were conducted for the knowledge scales, need for additional information scales, intention scales and communication scales. A significant treatment × testing occasion interaction effect is directly interpretable as a treatment effect. A main effect of gender role group is interpretable as differences between two or more groups. For demographic and behavioural data Chi-square analyses were performed.

Results

Programme impact

In order to detect programme effects, the primary focus is on condition × time interaction effects (see Table 3). On the knowledge measure, the two-way repeated measures analysis of variance with time and condition as the factors yielded no significant effect for condition, a significant effect for time for the three scales and a significant interaction effect for one scale. The scores on the knowledge about condom use scale of both the treatment and the control group increased over time, but those of the treatment group showed a greater increase than those of the control group.

A clear time effect was detected for the need for additional information scales. In both the treatment and the control group the perceived need for additional information declined over time. Need for additional information was not related to group and did not change significantly different over time in the treatment and the control group.

The intention measures were not related to group, did not change significantly over time and did not evidence an interaction effect.

The skills measures were not related to group and did evidence one time effect. A significant condition × time effect was found for condom and partner negotiation skills. Respondents of the treatment group reported an increase in condom and partner negotiation skills whereas respondents of the control group did not.

On the communication measures, the two-way repeated measures analysis of variance with time and condition as the factors, yielded no significant effect for condition, a significant effect for time for three scales, and a significant interaction effect for communication with friends about safer sex. Respondents in the treatment group reported an increase in communication with friends about safer sex, whereas respondents of the control group did not.

Profile of subjects subscribing to traditional and egalitarian gender-role scripts
Table 4 presents the main effects for gender-role group on the treatment and treatment-related variables. Differences were mainly found between non-tolerant and permissive adolescents. Conservative adolescents report less condom negotiating and problem-solving skills, have a lower intention for condom use and a lower score on the knowledge about AIDS facts and knowledge about condom use scales.

Non-traditionals differ from permissive adolescents in their need for additional information about relationships, gender roles, female contraceptives and safer sex practices and partner negotiation skills. Non-traditionals differ from conservative adolescents in that they talk significantly more frequently about safer sex with their friends. Traditionals differ from conservative adolescents in that they have a higher score on the knowledge about condom use scale.

It can be concluded that conservative and permissive adolescents are in many ways opposites. They do not only differ in their attitudes towards condom use, but also in their skills, knowledge and intention. Traditionals and non-traditionals do not significantly differ

Table 3 *Programme impact*

Effects	Condition *F*-value	Time *F*-value	Condition × Time *F*-value	Condition × Time × Gender group *F*-value
Skills				
refusal	0·24	46·35***	0·50	0·75
condom negotiation	0·09	0·20	2·51*	0·37
partner negotiation	0·95	1·96	2·83*	0·19
problem-solving	0·01	0·50	0·76	0·19
Intention				
for condom use	0·16	2·25	0·02	1·53
for partner selection	0·01	1·89	2·54	0·45
for abstention	0·23	1·35	1·32	0·22
Knowledge				
of AIDS facts	1·87	19·30***	0.03	0·72
of condom use	2·08	28·93***	7·08*	1·04
of contraceptives	3·08	142·31***	1·20	0·89
Need for additional information				
relational issues	0·71	21·25***	0·59	3·13*
female contraceptives	0·56	35·55***	0·26	3·21*
gender roles	1·91	27·65***	2·55	0·70
contraceptives/condom	1·22	19·29***	1·00	0·60
safer sex practices	0·06	56·23***	1·35	3·11*
Communication				
with friends about safer sex	0·06	0·30	3·49**	2·58*
with peers about yourself	0·01	7·71**	0·65	1·28
with partner about sex	0·41	1·99	0·04	0·26
with classmates sex roles	0·06	10·33**	1·06	3·38*
with friends sex roles	0·33	44·35***	0·17	0·29

*$p<0·05$; **$p<0·005$: ***$p<0·001$.

on any of the treatment or treatment-related variables except for their gender-role script. It is however noteworthy that non-traditionals talk significantly more about safer sex with their friends and that they have a higher need for additional information.

Programme impact differing across subjects subscribing to traditional and non-traditional gender-role scripts

In order to detect differences between the four groups in programme impact, the focus is on condition × time × gender-role group interaction effects. Those three-way interaction effects (see Table 3) were found for communication with friends about safer sex and for communication with classmates about safer sex and sex roles. For those conservatives, non-traditionals and permissives report after programme termination an increase in frequency of talk whereas traditionals do not. A three-way interaction effect was also found for the need for additional information about relational issues, female contraceptives and safer sex practice measures. Conservatives, permissives and traditionals report a decreased need after programme termination, whereas the programme did not fulfil the information needs of the non-traditionals.

Table 4 *Profile of the sample by gender-role group*

	Conservatives (n=100)	Traditionals (n=91)	Non-traditionals (n=39)	Permissives (n=100)	F-value
Skills (mean/5)					
refusal	2·82	2·65	2·33	2·78	2·35
condom negotiation	4·05[a]	4·34	4·20	4·68[b]	3·86***
partner negotiation	3·99	4·22	3·74[a]	4·41[b]	4·83***
problem-solving	3·52[a]	3·88	3·89	4·21[b]	6·17***
Intention					
to use condoms	3·45[a]	3·75	3·73	3·80[b]	2·37*
to select a partner	3·76	3·90	3·44	3·87	1·97
to abstain from sex	2·98	3·09	2·83	3·02	0·23
Knowledge (proportion)					
of AIDS facts	0·67[a]	0·76	0·68	0·79[b]	5·72**
of condom use	0·65[a]	0·73[b]	0·67	0·73[b]	2·83*
of contraceptives	0·81	0·91	0·75	0·82	1·51
Need for additional information					
relational issues	2·67	2·63	3·38[a]	2·60[b]	5·25**
female contraceptives	2·88	2·86	3·22[a]	2·66[b]	3·18*
gender roles	2·72	2·87	3·30[a]	2·70[b]	3·66*
contracept/condoms	2·46	2·44	2·74	2·56	1·52
safer sex practices	3·33	3·34	3·70[a]	3·06[b]	2·57*
Communication					
with friends/safer sex	2·58[a]	2·86	3·25[b]	2·87	4·18**
with peer/yourself	2·29	2·68	2·56	2·56	1·77
with partner about sex	3·04	3·37	3·40	3·46	1·52
classmates/sex roles	2·11	2·37	2·51	2·39	2·16
friends/sex roles	2·02	2·31	2·07	2·26	0·93

*p<0·05; **p<0·005: ***p<0·001.

[a,b] Different superscripts refer to significantly different means.

Discussion

The primary goal of working with adolescents in schools was successful, in that significant treatment effects occurred on knowledge, perception of skills and frequency of communication. After programme termination, treatment subjects were better informed about condom use, had a higher feeling of self-efficacy concerning partner and condom negotiation-related skills and talked more about safer sex with their friends and classmates. These results are comparable to evaluation data of similar programmes. School-based sexual risk reduction programmes guided by social cognitive models and skills training are able to improve knowledge, change attitudes and the most successful programmes result in a higher intention to use condoms (DiClemente, 1993). The programme described above was not effective in improving intentions to use condoms, nor in improving refusal, partner negotiation intentions and problem-solving skills. As discussed in the introduction to this paper, whether or not to practice safer sex is not only based on individual decision-making. Accordingly it is not surprising that prevention programmes emphasizing on individuals and individual decision-making are not effective in changing safer sexual decision-making.

This paper also aimed at investigating the influence of aspects of the social context on safer sexual behaviour. The focus was on double standards and on permissiveness towards condom use. In addition to a global programme evaluation, programme effects were measured for subjects subscribing to traditional or egalitarian gender roles.

Nearly 15% of the adolescents have internalised the traditional gender role script of male dominance and female submissiveness and about 6% have internalised the inverse script. It is surprising that more females than males subscribe to the traditional script whereas more males than females subscribe to the non-traditional script. This finding highlights that more females think males are responsible whereas more males think females are responsible for condom use. However, the data do not evidence that individuals subscribing to traditional gender roles are especially at-risk. In fact no differences in intentions, nor in sexual risk or protective behaviour is found. In a study of Moore and Rosenthal (1992) it was also found that double standards—although measured in a different way—do not correlate with sexual risk behaviour. However, according to the authors, there are indications that adolescents can profit from programmes with an emphasis on gender roles.

Our data evidence that an emphasis on gender-role based critical communication situations could be useful. Although double standards are not related to individual sexual risk behaviour, difficulties can be expected on a dyadic level. In the interaction between a traditional female and a non-traditional male, or *vice versa*, reciprocal misunderstandings may hamper safer sexual decision-making. Programmes should not only focus on individual safe sexual negotiation skills but emphasizing how to negotiate condom use from a different or weaker position.

In addition to double standards, permissiveness towards condom use was measured. Slightly more than one-third of all youngsters can be labelled conservatives. These subjects express negative expectations toward both male and female condom use and were found to be a group that needs special attention. In addition to their non-permissive beliefs towards condom use, conservative adolescents have a lower intention for condom use, lower perceptions of skills and a lower knowledge level compared to egalitarians. These findings highlight that intrapersonal determinants (knowledge, attitudes, skills and intentions) cluster together within subjects and that multidimensional interventions with an emphasis on knowledge improvement, skills training, attitude and intention change are useful.

It can be concluded that including the social context in addition to intrapersonal and interpersonal variables into theoretical models can improve the understanding of safer sexual behaviour in adolescence. The data with regard to the double standards towards condom use do not evidence a need for programmes differentiated for at-risk groups. In fact all youngsters can profit from programmes with an emphasis on gender-role based critical communication situations. With respect to the permissiveness dimension, however, it can be argued that special programmes are needed for intolerant adolescents.

This paper aimed at investigating the impact of the multidimensional sexual risk reduction programme for adolescents differing in gender role expectations. Since most of the differences found at pre-test still exist at immediate and delayed post-test, the global programme was not successful in fulfilling the special needs of the subgroups. However, some of the programme effects appeared differently across the subgroups.

The programme resulted in more frequent safer sex-related communication with friends in treatment subjects, but this effect was not found for traditional treatment adolescents. This finding evidences that, at least with regard to safer sex opinions, traditionals rely less on their friends compared to the others. It was also found that non-traditionals communicate more frequently with their friends about safer sex. Accordingly, traditionalism with regard to condom use was found to be negatively associated with frequency of sex-related communication with friends.

At pre-test, non-traditionals expressed a higher need for additional information. This is not surprising since they rely more on their friends and consequently learn from their friends' (limited) experiences. The school-based programme was, however, not able to fulfil the information needs of the non-traditional adolescents. There are several possible explanations for this result. The inability of the programme to fulfil the information needs of the non-traditional treatment adolescents could be due to the programme content, to the underlying programme attitude towards intimate relationships, sex and condom use or to the programme provider and the methods used.

Since the information need measures closely match the programme content, the latter is not likely to be the explanation. After programme termination, non-traditional treatment adolescents still have a high need for additional information on safer sex practices whereas the focus of the programme is on safer sex practices.

However, non-traditionals may have particular and more detailed needs for information or they might want information on other safer sex practices than condom use. The latter is related to the second possible explanation: the underlying attitude of the programme towards safer sex and relationships might not match with the attitudes of the non-traditional adolescents. Non-traditionals have a rather uncommon gender role attitude with a double standard in favour of the female. It is probable that the programme starts from a more traditional double standard towards condom use in favour of the male. It is in fact unlikely that the gender role attitude of the programme providers would be unrelated to the programme content and the way in which the programme is taught. A number of studies have illustrated the processes of construction and control of sexuality in different institutional locations, for example in the educational system (see Holland *et al.*, 1992). They have shown that medical and moral positions on AIDS interact with each other and can be seen to have come together in problematic ways in the context of AIDS education. As such, the discussion on changing sexual behaviour in the sexual risk reduction programme draws on pre-existing moral discourses which are not in line with the attitudes of the non-traditional adolescents.

The third possible explanation for the inability of the programme to fulfil the information needs of the non-traditionals is related to characteristics of the programme provider and the programme context. Since the programme was taught by a health educator in a school context, the health educator is not "friend-like" and the context of the programme not "leisure time like". Mellanby *et al.* (1992) recently discussed various aspects of sex education for teenagers and conclude that peer-led teaching is both a powerful and essential component of school health and sex education. It would be interesting to test whether or not especially non-traditional adolescents can profit from peer education in a leisure time setting in addition to sexual risk reduction programmes in the school.

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