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# *Sexualization in the Coping Process of HIV-Infected Gay Men*

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**This study explores determinants of unsafe sex, specifically in HIV-infected gay men. It is assumed that safe sex in HIV-positive men is determined by other factors than in men with an unknown or negative serostatus. For HIV-positive men it is much less an issue of protecting oneself, and more so an issue of protecting the other. It is hypothesized that for HIV-positive men, practising safe and unsafe sex is the outcome of a coping process, in which the stress of being infected is mediated by several factors, potentially resulting in a tendency to compulsive sexual behaviour (sexualization). A path analytic test supports the theoretical model. However, sexualization, especially the tendency to have sex to make oneself feel better, is only related to the number of sex partners one has had and not to having practised unsafe sex. This may imply that practising safe and unsafe sex should be much more understood from an interpersonal than an intrapersonal perspective.**

## INTRODUCTION

As long as a vaccine for HIV infection is not in sight, strategies to promote safer sex are a core element of AIDS prevention. Preventive strategies need to rely on a conceptual framework. Prevention oriented research has often referred to cognitive models like the Health Belief Model (Rosenstock, 1974), the theory of planned behaviour (Ajzen, 1985), the precaution adoption model (Weinstein, 1988) and the theory of protection motivation (Rogers, 1983). All these models were developed before the AIDS crisis arose and, thus, are not specific to AIDS prevention. This is particularly relevant with respect to sexual behaviour which has its own dynamics and cannot simply be subsumed under health behaviour (Davies, 1994). The theoretical implication of most of these models is that behaviour would be mainly reasoned and rational. It is unclear to which extent this assumption applies to sexual behaviour, which, although it is not exclusively irrational, does only partly serve rational aims.

After a number of studies showed dramatic behaviour changes—reduced number of partners,

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increasing abstinence from 'unsafe' sexual practices, and increased use of condoms—among gay men during the late 1980s (McKusik *et al.*, 1985; Winkelstein *et al.*, 1987; van Griensven, 1989; de Vroome, 1994), the focus of interest at the beginning of the 1990s was shifting towards difficulties in maintaining 'safer sex' over a longer period of time. Several research groups reported on what they called 'relapse to unsafe sexual behaviour' (Kelly *et al.*, 1991; de Wit *et al.*, 1993). The following were identified as predictors of unprotected sexual behaviour: younger age, no steady partner, low peer support for condom use, and alcohol and drug use (O'Reilly *et al.*, 1990). Repeatedly, alcohol and drug use were associated with unsafe sexual behaviour (Stall *et al.*, 1986; Adib *et al.*, 1991; Ostrow *et al.*, 1993).

Interestingly, most of these studies do not regard the HIV-status as an influential variable. Implicitly, they refer to the perspective of non-infected persons, i.e. of those who are more or less motivated to protect themselves and whose motivation is an 'egoistic' one. The perspective of the infected persons is, however, psychologically different. Since most of the HIV-positive persons are informed that unprotected intercourse bears a risk of secondary infections, their motivation to avoid unsafe sex is primarily altruistic: to protect the sexual partner.

Being infected with HIV is itself a traumatic situation which creates an array of stressors: the reduced lifetime perspective, the threat of discrimination, the information about decreased CD4 counts, the dependency of the support of others, and clinical symptoms. These stressors have the potential to trigger depression and anxiety (Fawzy *et al.*, 1989; Miller and Riccio, 1990; Murphy *et al.*, 1991; Weimer *et al.*, 1991). In order to live with these stressors, HIV-infected persons develop coping strategies to alleviate their emotional distress. Different studies have analysed which coping styles are effective to buffer the emotional distress and which ones are detrimental and may increase stress (Wolcott *et al.*, 1986; Namir *et al.*, 1987; Nicholson and Long, 1990).

Only a few studies have addressed the dynamics of sexual behaviour in the HIV-coping process (Clement, 1992). Sexual behaviour itself can be used as a coping strategy. From a psychodynamic as well as from a cognitive-behavioural perspective, several authors have outlined that compulsive sexual behaviour (sexualization) may be a defence against feelings of threat, anxiety and depression (Stoller, 1975; Davis, 1983; Quadland, 1985; Giddens, 1992; Coleman, 1989). Seeking new sexual partners, cruising, sexualizing neutral situations, being preoccupied with sexual wishes and fantasies helps to avoid and deny feelings of sadness, hopelessness and threat, at least temporarily. Sexualization may be expressed in overt behaviour or may occur in fantasy. According to the sexualization thesis, one would expect correlations between coping, depression, and sexual behaviour.

The aim of this study is to test a model that combines variables of the coping process with variables that are assumed to assess sexualization (Figure 1). This model would predict that the response to the stress of being infected is dependent on the coping style and that, in the case of maladaptive coping, a tendency to sexualize may arise. This tendency might result in having more sexual partners and in increasing the risk of practising unprotected sex.

In order to describe the complexity of the interdependent variables, we developed a path analytic model, which is more appropriate than a pure addition of bivariate analyses. The core ideas of the model are (1) that the HIV-related stress would result in depression, (2) that coping would moderate the psychological reaction to the HIV-related stress, particularly that depression would be influenced by coping, (3) that depression would increase sexualization and (4) that sexualization would result in more frequent sexual behaviour and more sexual risk taking.

## METHOD

### *Subjects*

The sample consists of 136 seropositive gay men, who participate in the Amsterdam Cohort Study (van Griensven, 1989; de Wit, 1994). The cohort is assessed at 6-month intervals. For the present study, data were collected from the 15th wave, in the middle of 1993. All participants of the cohort who were tested HIV-positive up to the preceding wave, were asked to complete a set of questionnaires. Out of 216, 144 (66%) responded. Eight respondents were excluded due to missing data.

All participants considered themselves to be exclusively homosexual (81%), almost exclusively homosexual (8%) or predominantly homosexual (11%). Their age ranged from 22 to 63 years, with a mean age of 40.0 years ($SD = 7.3$). All participants were informed about their positive HIV-status; the mean duration of their knowing about the HIV-

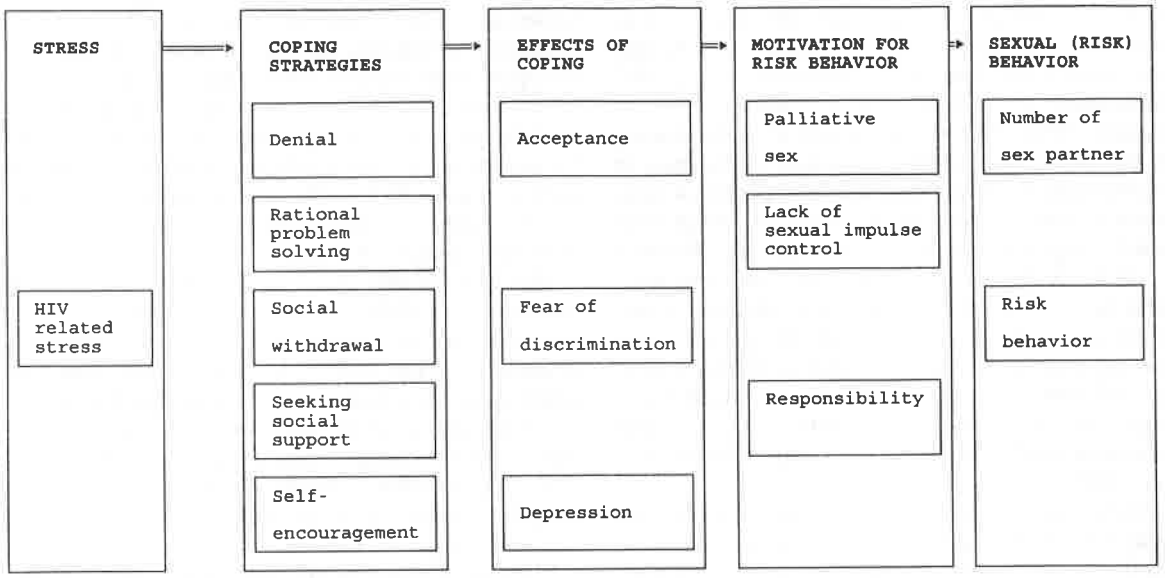


Figure 1. Theoretical model of the HIV-coping process and sexual (risk) behaviour

infection was 4.8 years ($SD = 2.89$). The number of sex partners in the preceding half year varies from 1 to 97 ($SD = 19.08$). Twenty-nine (19%) men reported on having had unsafe sex in the previous 6 months.

### *Measures*

The scales used had been tested in precedent studies. The first set of scales to assess different psychological aspects of living with AIDS was developed by Clement (1992). They covered stress, coping, effect of coping, and motivation for sexual risk behaviour. All variables were measured by asking subjects to indicate on 5-point scales (not at all–completely agree) to which extent a specific statement applied to them.

### *Stress*

This scale consists of seven items (Cronbach's alpha = 0.93). The items describe the amount of stress that is experienced after an HIV-infection, (example: 'I more often think about the infection than I would like').

### *Coping*

The coping scales were taken from the 80-item-version of the FKV (Freiburger Fragebogen zur Krankheitsverarbeitung, Freiburg Coping Questionnaire) (Muthny, 1986). Five subscales contain 23 items: self-encouragement (six items; $\alpha = 0.72$) describes an active cognitive coping style, (example: 'I am ready to fight against AIDS'); social withdrawal (five items; $\alpha = 0.58$), (example: 'Sometimes I would like to run away from it all'); seeking social support (three items; $\alpha = 0.57$). The focus of this scale is the wish to have social support, without really having it, (example: 'I would feel like crying with someone'); avoidance (four items; $\alpha = 0.68$), (example: 'I don't let other people know how badly I feel'); rational problem solving (five items; $\alpha = 0.53$), (example: 'I think what I can do best, and act accordingly').

### *Effects of Coping*

The result of coping is covered by three subscales and 18 items: acceptance: this subscale (six items; $\alpha = 0.59$) describes to what extent the HIV-infected person has developed a positive attitude towards his social role as being HIV-positive, (example: 'In a certain way I am proud about the way I deal with my HIV-infection'); fear of discrimination (seven items; $\alpha = 0.80$), (example: 'If people know that I am infected, I am sure they will shut me out'); depression (five items; $\alpha = 0.88$). This scale is a short form of the depression scale of the Hopkins Symptom Check List (Derogatis and Clearly, 1977).

### *Motivation for Risk Behaviour*

The original scale 'sexualization' consisted of eight items. A factor analysis of these items resulted in two distinct factors, 'palliative sex' and 'lack of sexual impulse control'. Palliative sex (five items, $\alpha = 0.81$) describes the tendency to seek sexual contacts in order to balance one's self-esteem, (example: 'I have occasionally used sex to deal better with emotional difficulties'); lack of sexual impulse control (three items; $\alpha = 0.69$), (example: 'Sometimes I am overwhelmed by sexual desires that I cannot control').

The second set of questions was taken from the questionnaire of the Amsterdam Cohort Study (de Wit, 1994) and focuses on the sexual behaviour during the previous 6 months. Respondents are asked to report about the number of steady and casual partners, the kind of sexual techniques practised and whether and how frequently condoms had been used. For this study respondents were classified as sexually unsafe, when they had had unprotected anal intercourse in the preceding 6 months with either casual or steady parners (in case the steady partner was HIV-positive as well, unprotected anal intercourse was not categorized as unsafe). Given its uneven distribution, the number of men one had had sex with is logarithmically transformed.

### *Data Analysis*

The assumptions were tested by a set of hierarchical regression analyses, based on the model described in Figure 1. The rationale of these analyses is that each of the factors depicted in Figure 1 is (possibly) determined by each of the previous factors and (possibly) determines all subsequent factors. In each of these regression analyses all variables from one level of the model were entered as a block, followed by backward deletion of non-significant variables. The outcomes are integrated into a path analytic model. Although the path analytic model is based on a causal model, most of the reported associations must be considered mutually dependent. This is especially the case when we consider the emotional response to stress, which in the model is moderated by coping strategies. In fact, depression itself may influence the coping process. Although the path analytic model regards only one direction of these associations, in reporting the results we will consider the interdependence of the variables.

## RESULTS

The HIV-coping model, as depicted in Figure 1, predicts sexual risk behaviour using four groups of predictors: HIV-related stress, coping strategies, effects of coping, and motivation for risk behaviour. The main results included in the path analysis confirmed most of our hypotheses and are presented in Figure 2.

### *Stress and Coping Strategies*

The more HIV-infected persons experience feelings of being overwhelmed and intruded upon by the threat of AIDS, the more they tend to withdraw from other persons ($R = 0.42$, $F(1,131) = 28.87$, $p < 0.0000$), to deny the infection ($R = 0.46$, $F(1,130) = 34.97$, $p < 0.0000$)) and to long for social support ($R = 0.59$, $F(1,132) = 70.06$, $p < 0.0000$). Here, the interdependence of stress and coping is obvious: these coping strategies are not apt to reduce stress. The more a person withdraws from other persons, uses an avoidant cognitive coping (denial), and longs for social support without really receiving it, the more he will experience feelings of intrusion by anxiety and depression.

### *Coping Strategies and the Effects of Coping*

The coping strategies which we included in our model show specific effects. Roughly speaking, we can identify a functional and a dysfunctional pattern. The functional pattern is described by rational problem-solving. This coping style strengthens the self-acceptance of oneself as an HIV-infected person. In a later stage, it also increases the motivation for 'responsible' sexual behaviour, i.e. the preparedness to avoid unsafe sex. The dysfunctional pattern is more complex. Social withdrawal shows significant associations with all three variables measuring effects of coping. It is negatively associated with acceptance, in other words, the more a person avoids social contact, the less he will develop a 'positive' attitude towards being infected. Together with a strong positive interrelation with fear of discrimination and a somewhat weaker positive interrelation with depression, social withdrawal appears to be an influential dysfunctional coping strategy. Seeking social support (without getting it) also results in depression. These regression analyses gave the following end results: for depression, multiple $R = 0.74$, $F(5,126) = 31.11$, $p < 0.0000$; for acceptance, multiple $R = 0.41$, $F(3,128) = 8.81$, $p < 0.0000$; for fear

of discrimination, multiple $R = 0.52$, $F(1,130) = 48.65$, $p < 0.0000$.

### *Determinants of the Motivation for Unsafe Sex*

The tendency to have palliative sex is determined by depression, but not by the other coping effects (multiple $R = 0.32$, $F(1,128) = 15.09$, $p < 0.0002$). The second 'sexualization' scale (lack of impulse control) is also exclusively determined by depression (multiple $R = 0.29$, $F(1,127) = 11.31$, $p < 0.0010$).

The 'responsibility' item, measuring the extent to which one feels responsible for preventing HIV-transmission, shows a positive association with the active cognitive coping strategy 'rational problem solving' (multiple $R = 0.23$, $F(1,128) = 7.39$, $p < 0.008$).

### *Determinants of Actual Sexual Behaviour*

The number of sex partners in the preceding 6 months, which is in itself not a direct risk factor, is associated with different predictors. Two coping styles (seeking social support and self-encouragement), and depression show negative associations with the number of sex partners. A substantial path coefficient predicts the number of sex partners from palliative sex (multiple $R = 0.53$, $F(4,124) = 12.42$, $p < 0.0000$). Contrary to our hypothesis, however, is that actual risk behaviour (having had unprotected anal sex within the last 6 months), is not directly related to any of the predictive variables.

Figure 2 integrates the results of the regression analyses in a path model. Since actual risk behaviour appears to be related to the number of sexual partners ($r = 0.22$, $p < 0.01$), it is put at the end of the explanatory chain.

## DISCUSSION

What are the important aspects of these results with respect to the sexualization thesis? First of all, the level of depression is a response to the perceived stress of being HIV infected. Particularly persons who tend to withdraw from other people and who are predominantly seeking rather than actually receiving social support seem to be more depressed. It should be mentioned that active cognitive coping strategies, like rational problem-solving and self-encouragement, do not buffer this influence.

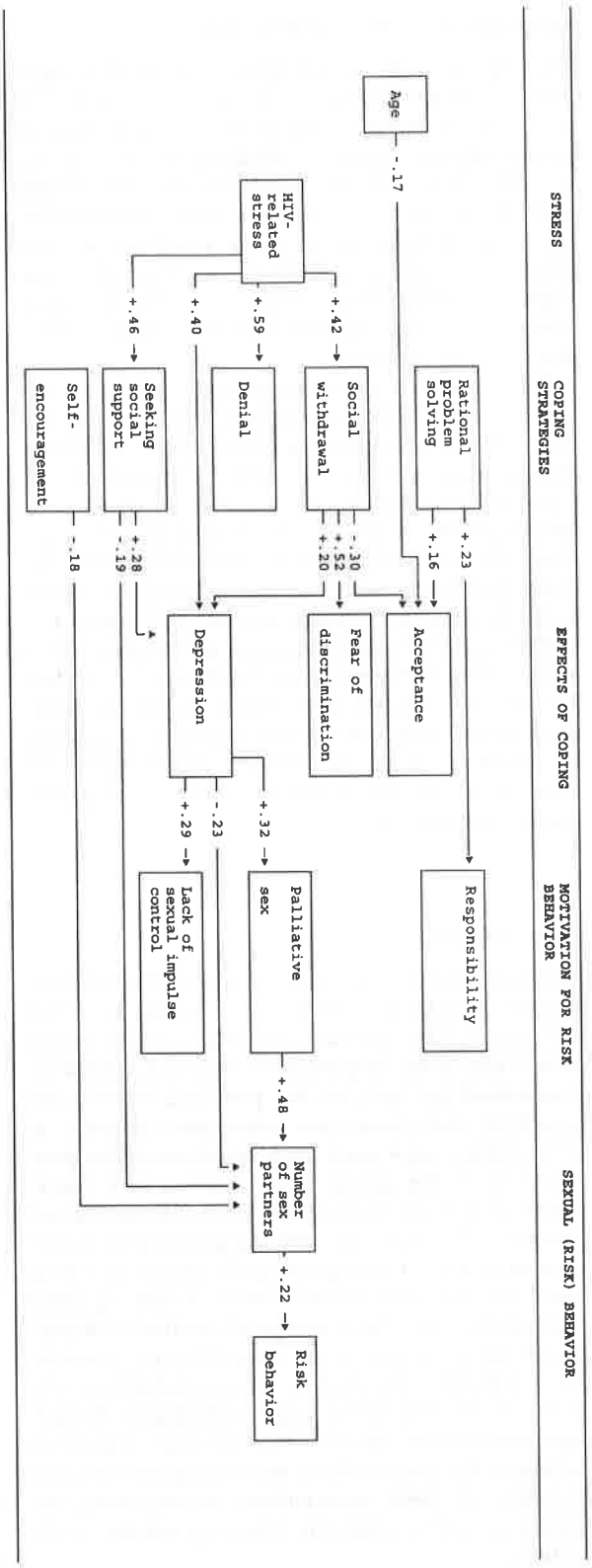


Figure 2. The HIV-coping process and sexual (risk) behaviour; results from a path analytic approach (significant standardized beta weights)

Secondly, depression is positively associated with both aspects of sexualization, palliative sex and lack of impulse control. In other words, men who are more depressed, have a stronger tendency to have sex in order to make themselves feel better and also seem to experience a greater lack of control of their sexual impulses. One aspect of this sexualization tendency, palliative sex, is strongly related to the number of sex partners during the 6 months prior to investigation. However, contrary to what we expected, neither of the two sexualization tendencies, nor any of the coping strategies and coping effects, are directly related to practising unsafe sex. Although rational problem solving increases the sense of responsibility for one's sexual behaviour, responsibility is not, as one might expect, associated with (un)safe sex. These results imply that there is no support for the thesis that unsafe sex is related to how HIV-positive men cope with their situation. More specifically this means that using condoms when practising anal intercourse is not directly related to stress, coping, and sexualization. From former analyses with data from the Amsterdam Cohort, we know that other predictors like attitudes towards condoms, self-efficacy and one's sense of control over the sexual interaction, are cross sectional as well as longitudinal predictors of condom use (Sandfort *et al.*, 1992; de Wit, 1994). This may be interpreted such that actual risk behaviour is more dependent on situational and interpersonal factors than on internal psychic processes of an HIV-infected individual. Since the number of sex partners is positively related to having practised unprotected anal intercourse, the number of sex partners could be considered a risk factor for unsafe sex, as other studies have already shown (e.g. Kelly *et al.*, 1995). The number of sex partners, however, appears to be determined much more by intrapersonal factors.

These findings have implications for prevention. Although HIV-positive gay men need specific attention to help them cope with the infection-related stress and to maintain a healthy and rewarding sexual lifestyle, in order to promote safe sex among seropositive gay men it appears that the same factors have to be addressed as among gay men with an unknown or negative HIV-serostatus.

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