

The influence of different motivations for having sex on condom use of South-African adolescents in the Limpopo province

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Abstract

HIV/AIDS is a huge problem in South Africa and especially in the age group of 15 to 24 years the infection rates are high. Since no medicines to cure it are developed yet, it is very important to create interventions that are successful in decreasing adolescents engagement in risky sexual behaviour. Based on a functional analysis of behaviour it can be said that motives for having sex will shape the sexual behaviour of adolescents. Because different motives for sex have a fit with different educational methods, it is important to explore the influence of the different motives for having sex on the engagement in risky sexual behaviour. The current research will take into account four sexual motives that are based on the theoretical distinctions between the avoidance of negative outcomes versus pursuing positive outcomes and individual versus social motives. The motive of transactional sex is added to this since previous research indicates this motive plays a role in South Africa. This research explores the relation between five motives for having sex (enhance mood, express love, experience pleasure, please others and transactional sex) and condom use of rural South African adolescents. Questionnaires were used to explore this at a group of 662 students in the age group of 13 to 25 years ($M = 17$), of which 143 students joined in the final sample. Based on the results it can be concluded that the different motives significantly predicted whether a condom is used by the adolescent, even when controlling for the gender, age, experienced power and relationship type with the sexual partner. Results show that adolescents that are having sex to avoid negative outcomes were less likely to use a condom. Practically this means that intervention programs should focus on promoting of having sex to pursue positive outcomes or on the other hand should emphasize that a condom must be used when having sex to avoid negative outcomes. However, results of the study also show that not all theoretical distinctions described by previous research contribute to the explanation of whether a condom is used. Due to the limitations of the current study, future research can be focus on exploring additional motives for having sex that might be present in the current sample and theoretical distinctions that explain the relation between these motives and condom use.

The influence of different motivations for having sex on condom use of South-African adolescents in the Limpopo province

Worldwide, an estimated 33.4 million people were infected by the *Human Immunodeficiency Virus* (HIV) at the end of 2012 (UNAIDS, 2013). HIV is a sexually transmitted disease, although it also can be transmitted through blood. The virus attacks the cells of the immune system, the effect of which can be measured by the number of CD4 cells, which are a type of white blood cells that are fighting infections. When the immune system seriously is affected by HIV, one can speak of the *Acquired Immuno Deficiency Syndrome* (AIDS). The number of HIV cells a person has in his/her blood is measured by the viral load.

A large share of the HIV-infected people are living in Africa. With 17,9% of the population infected by the virus in 2012, South Africa has one of the highest rates of HIV in the world (UNAIDS, 2013). Half of the new infections are in the age group of 15 to 24 years, which makes that young people in this age group are at a major risk for getting infected. The high prevalence of HIV and the sharp increase in the number of infections between the age of 15 to 24 years suggests a high level of unprotected sex (Harrison, Newell, Imrie & Hoddinott, 2010).

Because no medicines to cure one from HIV have been developed yet, at the moment the only option to reduce the HIV-rate is by preventing new persons from becoming infected (Jewkes et al, 2006). One manner to prevent oneself from getting infected by HIV is the use of condoms during sex. When a condom is used correctly and consistently, it will be 90% effective in its protection against the transmission of HIV (Hearst & Chen, 2004). Previous research shows adolescents often have the intention to use condoms, but also shows there's a major gap between the awareness of health related risks of unprotected sex and the actual use of condoms (Harrison, Xaba & Kunene, 2001). Also, evidence suggests that many available prevention programmes to improve the adolescents' knowledge on HIV and to teach them skills are not very effective (Jewkes et al, 2006). Therefore, one can conclude having information about how they can protect themselves from getting HIV does not mean the adolescents decisions will be based on this information (Worth, 1989).

It thus is important to understand why young adults, despite their intentions to use a condom, their knowledge of the risks of having unprotected sex and the skills they trained in prevention programmes, still engage in risky sexual behaviour (Cooper, Shapiro & Powers, 1998; Gebhardt, Kuypers & Greunsvan, 2003; Patrick, Palen, Caldwell, Gleeson, Smith & Wegner, 2010). In order to contribute to the improvement of effective prevention programmes, this research will contribute to the explanation for why adolescents do not use condoms by relating this to the different motives for having sex. The current research is conducted as part of the CHAMP-program, which is an

intervention that tries to approach more protective behaviour, but will only make use of the baseline questionnaire.

Theoretical framework

South African context and interpersonal factors

Results of a broad range of research points to the complexity of the subject of sexuality (Eaton et al, 2003). Sex is based on *personal* desires and next to that an *interpersonal* act. However, all these emotions and exchanges are construed by the *social context* in which it takes place, as it affects sexual practices, discourses, expectations and relations (Sponk, 2011). Sex is influenced by individual characteristics, but it will only take place in an interaction between sexual partners and is formed in a particular context (Sponk, 2011). Although the current study is about motives on the individual level influencing an adolescents' engagement in risky sexual behaviour, it thus is important to first explore the broader context of the research.

A large share of the research on adolescents engagement in risky sexual behaviour have taken place in the social context of either the United States or Europe. Major differences exist between the Western and the South African understandings of sexual understandings and practices (Parker, 2001), as well as in the problems the country is facing. A complex set of social, structural and cultural factors mediate the risks of practicing unsafe sex across cultures (Parker, 2001). In South Africa the rates of HIV are considerably higher than in the USA and Europe (UNAIDS, 2013), making that a large share of the research on sexuality in South Africa is directed to the question of why the HIV rates are so high in South Africa, whereas Western literature concerning adolescent sexuality tries to solve a variety of other problems. When practicing unsafe sex, this has different causes as well as consequences in South Africa than in Western countries. Western results on risky sexual behaviour therefore cannot blindly be applied in the South African circumstances (Eaton et al, 2003).

Past research has shown the South African adolescents report high rates of risky sexual behaviour, including infrequent condom use. In creating an explanation for why the South African youth put themselves at risk for getting HIV by having unprotected sex, cultural als well as socio-economic settings need to be addressed (Sponk, 2011). In South Africa, HIV mainly occurs in the Black community. An contextual factor that might shape the high HIV rates within the South African Black community, is the culture (Eaton et al, 2003). Research aimed at understanding the social context of sexual practices and relationships found gender roles to be among the most important social pressures within these Black communities (Harrison et al, 2001). Cultural values determine whether a girl can negotiate condom use with the boy (Tschann, Adles, Millstein, Gurvey & Ellen, 2002), due to unequal power in relationships between men and women (Leclerc-Madlala, 2003). Although these are

discourses and not adopted by every adolescent, the traditional African cultures tend to be more oppressive towards women, whereas male gender roles are characterized by domination (Eaton et al, 2003). This makes women more vulnerable for HIV than men within the Black South African cultural framework (Baiden & Rajulton, 2011).

Cultures of gender discrimination also can be linked to lower socio-economic positions of the Black communities. This is important, because the context in which the HIV epidemic occurs is the racialised social stratification that still characterises South Africa. Ethnicity and socio-economic status are strongly linked in South Africa, making that problems associated with poverty and HIV mostly affect the Black community. Therefore it is hard to assume the African cultural norms and not the socio-economic circumstances are explaining the subordinate position of Black South African women (Eaton et al, 2003). Socio-economic status namely is an important factor in explaining the high HIV rates, as the socio-economic problems of poverty, unemployment and low educational levels can be associated with higher levels of sexual activity among adolescents and less knowledge about HIV (Eaton et al, 2003). Poverty might support the cultural discourses that shape the unequal distribution of power between genders. It also often is the reason for women to have sexual relationships in exchange for financial support. The money offered in the transactional sex can be used to get the high status and financial assistance that the parents could not afford (Leclerc-Madlala, 2003).

The socio-economic context not only has an impact on gender roles and the distribution of power, but also plays a role in access to prevention materials as well as to knowledge. Its influence also can be seen in the urban-rural differences with regards to risky sexual behaviour. The urban youth tends to be better informed about HIV than those adolescents living in rural areas. Access in rural areas to information is more depending on outside experts and adolescents living in rural areas are less likely to show protected sexual behaviour (Kelly, 2000).

However, as sex takes place in interpersonal relationship, this also needs to be taken into account as influencing individual behaviours. Gender roles again play an important role. In sexual relationships, males largely dominate within the sexual activities and the use of a condom is in the hands of the men. As described above, this often takes place in a context of social inequality between the genders (Amaro, 1995). The decision to use a condom is seen as the male domain and insisting to use a condom is seen as nearly impossible to girls (Leclerc-Madlala, 2003), making a girls ability to practice safe sex depending on the males demands (Eaton et al, 2003). Experienced power in relationships thus is important in the decision to use a condom (Tschann et al, 2002). Those adolescents with a greater decision-making power will get their way about condom use (Amaro, 1995). Therefore, the power in relationships is relevant when the man and the woman differ in their desire to use a condom or not.

Because the power in relationships plays a role in whether a condom is used, the kind of relationship the adolescent has with the sexual partner is important as well. Previous research shows the interdependence of the relationship context and the behaviour of the adolescent (Cooper et al, 1998). The relationship type with the sexual partner influences condom use of adolescents, for condoms are used more consistently in sexual relationships with casual partners. Only few adolescents are using condoms when they're in a steady relationship, because their relationship existed for a longer period of time or because of the use of other contraceptive methods such as the birth control-pill (Gebhardt et al, 2003). However, this is problematic, because many South African boys have additional girls next to their steady girlfriend (Hearst & Chen, 2004).

Considering the cultural, socio-economic and interpersonal factors in South Africa, it logically can be concluded that factors shaping the individual's desires and decisions, and thereby the engagement in risky sexual behaviour as well, are different in South Africa when compared to the Western countries. Consequently, Western results of studies on sex and sexuality cannot simply be applied in the South African context. Individual factors influencing sexuality thus must be explored within the South African context and interpersonal relationships in order to create effective prevention programmes.

Exploring individual motives at the origins of behaviour

Although sexual behaviour is determined by the social context and interpersonal relationship in which it takes place, interventions directed to risky sexual behaviour mainly take place on the personal level. Personal experiences thus must be taken into account (Sponk, 2011). In South Africa, studies about sexuality mainly are conducted in relation to HIV, which distracts researchers from investigating the true meanings and sensitive aspects of why people are having sex (Sponk, 2011). When considering individual factors in relation to engagement in risky sexual behaviour, one aspect that must be taken into account is the adolescent's reason for having sex (Cooper et al, 1998). Based on a functional analysis of behaviour, Cooper et al (1998) state that behaviour best can be understood in terms of the motivations it originates from, as behaviour is formed by the things someone tries to do or accomplish. Differences in motivations on the origins of behaviour do have major consequences for its course and outcomes. No matter how similar the outcomes seem to be, the behavioural acts are still distinct from each other when they emerge out of distinct motives. It therefore is important to look at the motivations at the origins of the behavioural acts (Cooper et al, 1998).

Applying this theory to sexual behaviour, models that link sexual motivations to HIV often are disease-related, which means individuals are motivated to avoid serious diseases such as HIV. According to this, underlying determinants of practicing safe sex are the perceived probabilities and consequences of getting HIV (Levinson, Jaccard & Beamer, 1995). As a result of these disease-

related models, research and interventions about the engagement in risky sexual behaviour are often attributed to the knowledge and motivations related to the avoidance of diseases or the protection of health (Cooper et al, 1998; Levinson et al, 1995). However, results of these studies are mixed. The focus of these models is on rational decisions that people make, whereby it is assumed that knowledge and attitudes will have a straightforward influence on the decisions people make (Levinson et al, 1995). However, people are more likely to make emotional choices when it comes to sexual behaviour (McKirnan et al, 1996) and also other cognitive and attitudinal variables clearly can affect sexual behaviour as well. Also, many of the motivations for having sex are 'positive', which means people engage in sexual behaviour for positive purposes (Ott, 2004). These generally are ignored by disease related models, as these assume that safe sexual behaviour is driven by fear of negative consequences (Levinson et al, 1995). Therefore, interventions tend to be insufficient when only disease-related factors are applied (Levinson et al, 1995). While risky sexual behaviour is intrinsically related to health, the wider spectrum of motives for sexual behaviour might result in the disassociation of sexual behaviour and (future) health risks.

Exploring the different motives at the origins of behaviour is important when it comes to risky sexual behaviour, which here is defined in terms of using a condom during sex. Most researchers describe motivations for having sex in biological terms, but people also can have sex because of various psychological motivations. These can be defined as the conscious reasons for why people are engaged in having sex (Stephenson, 2011). It is important to understand the motives for having sex in order to understand why, despite their knowledge of the risks of having unprotected sex, adolescents still engage in risky sexual behaviour (Cooper et al, 1998; Patrick et al, 2010). The various motivations for having sex can be associated with different behavioural patterns (Stephenson, 2011) and therefore with different patterns of risky sexual behaviour (Cooper et al, 1998). Research findings indicate these motivations influence the number of sexual partners, engagement in casual sex and the use of a condom (Gebhardt et al, 2003).

Four domains of sexual behaviour

Different researchers describe a broad range of different motives for having sex and there are various ways to organize them. One manner to organize these various motives is by basing them on theories about the basic motivations of human behaviour (Stephenson, 2011). Based on this, Cooper et al (1998) describe four broad classes of sexual behaviour, which are based on two distinctions that are described in various motivational theories (Cooper, 1998).

The first theoretical distinction shows adolescents are not only motivated to avoid diseases, but also can have positive motives for sex (Cooper et al, 1998). The distinction is between the avoidance of negative outcomes, which can be defined as events that are perceived as potentially

threatening (Taylor, 1991), and the pursuit of positive outcomes, which are events that are perceived as potentially pleasurable (Elliott, 1999). The second distinction is the between the internal and self-focused motivations, which are intrinsic motivations, and the externally and socially focused motivations, which are extrinsic motivations. Being intrinsically motivated refers to actually doing something because it's inherently interesting and it contributes to inherent satisfaction that can be associated with the activity itself, whereas extrinsic motivation means someone does something because of the instrumental value of the activity. The desired outcome then is separable from the activity itself and also can include experiences of being pressured (Ryan & Deci, 2000).

When these two distinctions are combined, the result is a distinction in four domains of motivations for sexual behaviour, which are described in figure 1. First, there are the desired, self-directed motives for having sex, which for example include having sex to experience physical or emotional pleasure (experience pleasure). The second domain includes the aversive, self-directed motives, which for example are the sexual motives to cope with threats or to avoid negative emotions (enhance mood). Thirdly there are the desired, socially directed motives, such as having sex to achieve intimacy with one's partner (express love). Finally, the fourth domain includes aversive, socially directed motives, which for example are the sexual motives to avoid disapproval or to gain another's approval (please others).

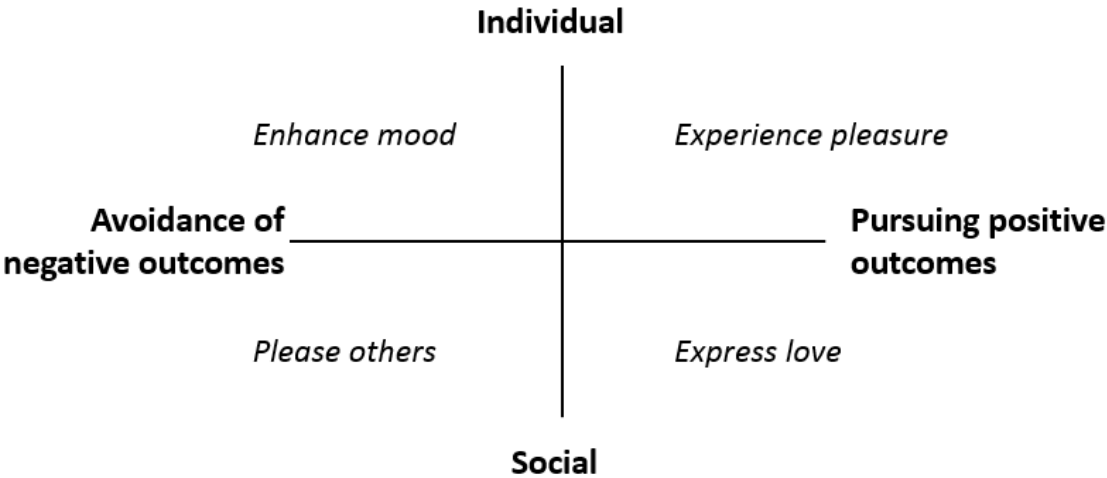


Figure 1: four domains of motivations for sexual behaviour (Cooper et al, 1998)

In their research, Cooper et al (1998) find strong support for the model that is based on the two motivational theories. When it comes to the distinction between avoidance of negative outcomes versus pursuing positive outcomes, at a specific level researchers found that within the various avoidance motives four different subtypes can be distinguished. The high correlation between these distinct subtypes indicate that they can be combined to form the two higher order domains, which are based on the distinction between social versus individual motives. The individual and social avoidance motives were correlated as well, indicating they can be combined to form one single avoidance motive. However, research results found the distinction between individual and social motives is

striking between the two approach motives, which means these approach motives cannot be combined to a single one without having a loss of information (Cooper et al, 1998; Cooper et al, 2011). This means the distinction between avoidance of negative outcomes versus pursuing positive outcomes on its own is not sufficient in explaining the patterns of sexual behaviours and the theoretical model cannot be combined to a two-factor model. The theoretical distinction between individual and social motives crosscuts the one between avoidance and approach motivations (Cooper et al, 2011). Research results show that the various motives for having sex can be grouped into four domains without having a loss of information (Cooper et al, 1998). This indicates that people are having sex out of a relatively small variety of motivations that can be described in terms of in social versus individual motives and avoiding negative outcomes versus pursuing positive outcomes (Cooper et al, 2011).

In sum, different motives for having sex can be associated with different behavioural patterns can consequences. Four classes of motives for having sex can be distinguished and these motives can be understood with reference to two motivational theories. When applying this motivational approach to the engagement in risky sexual behaviour, research found that the different motives for having sex do matter in predicting risky sexual behaviour (Cooper, 2011). Whether an adolescent is engaged in risky sexual behaviour depends on his motive for having sex. The distinction into four categories of motives tend to be sufficient in covering the broad range of motives for having sex and their differences in outcomes when it comes to risky sexual behaviour (Cooper et al, 1998). Predictions about the engagement in risky sexual behaviour can be based on the two motivational theories, which will be explained below.

Approach versus avoidance motives

Having sex to experience pleasure and to express love both can be seen as a movement towards valued goals and reflect a positive orientation towards sex. The sexual motives of having sex that are avoidance motivated, thus the motives to enhance the mood and please others, reflect a negative orientation (Cooper, 2011). Research suggests negative events trigger different psychological responses than positive ones. Negative events are those events that are perceived as potentially threatening. Perceived threat triggers a variety of physical reactions that puts the person in a state of readiness to react on the threat and it is assumed that positive events do not trigger responses with the same intensity. In line with this, one can say that expected negative outcomes of actions trigger more powerful emotions than expected positive outcomes. Positive events have a less influence over emotions than negative ones, for they usually occur when someone feels in control over the situation. Negative emotions mostly occur because of a lack of control in a situation and therefore signal more clearly actions needs to be taken (Taylor, 1991). Making decisions on the basis of emotions is related to more risk taking behaviour, because one must overcome the emotional loading of the behaviour in

order to see its possible dangers (Boyer, 2006). Focusing on negative experiences triggers impulsive behaviour in order to give immediate relief to the negative state of mind (Cooper et al, 1998). Impulsive decisions are also related to increases in risk-taking behaviours (Boyer, 2006). Focusing on possible positive or negative consequences of actions will trigger different decisions when it comes to risk-taking behaviours (Boyer, 2006). Avoidance motives thus are thought to lead to riskier sexual behaviour, because the focus on negative experiences interferes with clear thinking of the adolescent (Cooper, 2011).

Based on this theory, motives for having sex in order to avoid negative outcomes will thus lead to more risky sexual behaviour (Cooper et al, 1998) and this is in line with research results. The emotional loading of avoidance motives is much higher and linked to higher levels of risky sexual behaviours (Cooper et al, 2011).

Individual versus social motives

Considering the distinction between social and individual motives, theory indicates individual motives for having sex lead to lower rates of risky sexual behaviour (Cooper et al, 1998). Both individual and social motives for having sex take place in an interpersonal context, but the intended outcomes are different. Individual motivations are related to autonomy and can be associated with more well-being and less risk taking behaviours. Adolescents are more likely to practice safe sex when they're do not feel ought to, but because it is in line with their priorities (Ingledeew & Ferguson, 2007). Also, intrinsically motivated people do not value goals such as status as much as extrinsically motivated people do (Ryan & Deci, 2000). Having social motives for sex leads to riskier sexual behaviour (Cooper et al, 1998), because extrinsically motivated people are more orientated towards interpersonal comparisons and gaining approval of others (Ryan & Deci, 2000). Adolescence is a period in which one is more sensitive for risky behaviours as well as for pressure from peers. Adolescents that are having social motives are more influenced by others and their peers might push them into risk-taking behaviour.

This theoretical distinction is contingent with previous research results, for motives to please others and expressing love are related to low rates of condom use (Cooper et al, 1998). Having sex to experience pleasure, which is an individual motive and associated with pursuing positive outcomes, can be associated with less risky sexual behaviour. Having sex to enhance one's mood also is an individual motivation, but because the motivation is directed to avoiding negative outcomes, it is negatively related to condom use of adolescents (Cooper et al, 1998).

Transactional motive

Besides the theoretically based motives ascribed above, an additional motive is shaped by an economic exchange, which means sex is traded for material goods (Kaufman & Stavrou, 2004). As described above, transactional sex occurs as a result of a low socio-economic status (Eaton et al, 2003). The research of Cooper et al (1998) was conducted at a group of students in the USA and the transactional motive was not present in their results (Cooper et al, 1998). However, since the Black South African community merely is marked by poverty and has divergent social norms regarding to the subordinate position of women (Eaton et al, 2003), the transactional motive for having sex might be present for the Black South African adolescents. As the socio-economic context might shape the sexual behaviour of adolescents and thus play a role in the high HIV prevalence in South Africa, it is important to consider this motive in addition to the four described by Cooper et al (1998).

According to results of studies conducted in South Africa, having sex for material gain does not only occur for prostitutes, for research results show that few women who are engaged in transactional sex see themselves as sex workers (Hunter, 2002). For many women the exchange of sex for financial or lifestyle rewards is an important factor in their orientation towards sexual relationships (Leclerc-Madlala, 2003). The gifts that they receive are a motivation for having sex as well as to not use condoms. This can be associated with various other negative consequences (Kaufman & Stavrou, 2002). The financial need of the girls creates an explicit imbalance of power in their sexual relation with the boy (Harrison, 2001; Hunter, 2002). When girls are engaged in transactional sex, their abilities to negotiate about the circumstances of the sex are low (Kaufman & Stavrou, 2004). Because having sex for material goods often will occur with non-primarily partners that are much older, girls experience a lack of power un multiple ways: they are younger, have less experience and they are less able to request their desires to use a condom (Harrison, 2001; Hunter, 2002). Because of this imbalance in power, the transactional sex often takes place without the use of a condom (Kaufman & Stravrou, 2002).

However, a literature review on transactional sex suggests transactional sex can also be used in order to improve one's status. Girls are aware of the power inequalities and make use of the men as well in order to further their own interests (Leclerc-Madlala, 2003). Therefore, when the transactional motive is highly present in the research population, it might also indicate the big problems are about the girls willingness to change their behaviour. Leclerc-Madlala (2003) shows in her qualitative research in a township nearby Durban that in the South-African culture the exchange of sex for financial or lifestyle rewards has to do with young women exploiting their desirability in an effort to attract men who can provide them with expensive commodities such as jewelry, cellular phones or fashionable clothing, in order to achieve a higher status in youth cultures (Hunter, 2002; Leclerc-Madlala, 2003). The material gain for the girls is higher when they do agree in condom-less sex. When

these girls were motivated by consumption, they were more likely to exploit their desirability in order to achieve maximal material gain. The fact that the transactional sex puts the girls in a high risk position for getting infected by HIV did not motivate the girls to change their lifestyle. On the contrary, the girls were motivated to exploit immediate benefits and seek rapid improvements in their lives, because of the high prevalence of HIV in South Africa and their vision that because of this high risk of infection having a future is not guaranteed to them (Leclerc-Madlala, 2003).

Transactional sex thus often takes place without the use of a condom (Kaufman & Stravrou, 2002), either because of imbalances in power (Harrison, 2001; Hunter, 2002) or because agreement with unprotected sex leads to more material gains (Leclerc-Madlala, 2003). The transactional motive for having sex is not distinguished in the research of Cooper et al (1998). It is therefore not based on the theoretical distinction of the four motives for having sex. When it comes to the distinction between individual and social motives, one can say the intended outcome of the sex is not in the activity itself, which means one cannot speak of individual intrinsic sexual motives. Attaining a good status in youth cultures is a social motive, but transactional sex also can occur because of financial needs, which is not a social but a material motive. When it comes to the distinction between avoiding negative outcomes and pursuing positive outcomes, it is not clear how the motive should fit into this distinction, for maybe both are served. Namely, girls can have sex in order to avoid poverty or to seek rapid improvements in their lives.

In sum, it is not clear where to place the transactional motive for having sex within the theoretical distinction. Therefore it might be related to other behavioural outcomes. For this reason, the occurrence of transactional sex might have an impact on the workings of prevention programmes. In order to develop effective prevention programmes, transactional sex thus must be taken into account.

Research question and relevance

The motivation of the adolescents for having sex will shape their sexual behaviour and will thus influence whether the adolescent will be engaged in risky sexual behaviour. This indicates that programmes tending to change the behaviour of the adolescents must be based on these motivations (Cooper et al, 1998). Because sexual behaviour is socially constituted, the cultural values, sexual norms, motivations and the actual sexual behaviour can vary widely across cultures (Leclerc-Madlala, 2003). Therefore, the effectiveness of a prevention method is shaped by the social conditions and environment in which it takes place (Hart, Williamson & Flowers, 2004). Based on this, one can state motivations of the rural South African adolescents for having sex must be explored in order to understand how their risky sexual behaviour best can be intervened (Cooper et al, 1998; Patrick et al,

2010). Different educational methods have a fit with different motivations for having sex. It is important to create a fit between the skills that are trained in the programmes and the specific motives for having sex the adolescents have in a certain area (Cooper et al, 1998; Patrick et al, 2010). Prevention methods might be more effective when they acknowledge reasons that are important to adolescents that are engaged in risky sexual behaviour instead of focusing on reasons that are less important to them (Patrick et al, 2007).

Although the distinction in the four motives for sexual behaviour are based on Western literature, the domains as described by Cooper et al (1998) can be applied to the South African context, which is described by Patrick et al (2010). Reasons for sexual behaviours were tested in a qualitative study and tended to be similar to those distinguished by Cooper et al (1998; Patrick et al, 2010). However, there is a big difference between the Western and South African context when it comes to the possible negative consequences of risky sexual behaviour, for the number of HIV positive people is much higher in South Africa (UNAIDS, 2013). Also, dissimilarities exist in the pre-existing factors influencing the motives for having sex and condom use of adolescents, for the Western and South African context is very different from each other for example when it comes to gender roles or socio-demographic factors (Patrick et al, 2010). Although previous research has found the same motivations for having sex are present in the South African context as in the Western context, it is not clear yet how these different motivations constitute the behaviour in the South African context and thus how the motivations for having sex influence condom use of the South African adolescents.

The research question of this study is: *What is the relationship between the motivation for having sex and the use of the condom of the South-African adolescents aged 14 to 18 at high schools in the Limpopo province in South Africa?*

In order to answer this question, the following sub-questions can be formulated:

- What are the reasons for the South-African adolescents for having sex?
- How do the different reasons for having sex relate to condom use by adolescents?

Hypotheses

Based on the theoretical distinctions between individual and social motives and the distinction between pursuing positive outcomes against avoiding negative outcomes, hypotheses were formulated about the relationship between the different motives for having sex and condom use of adolescents living in the Limpopo province in South Africa.

When it comes to the distinction between pursuing positive outcomes and avoiding negative outcomes, motivations for sexual behaviour in order to avoid negative outcomes will lead to more

risky sexual behaviours. This is because the avoidance-motivated motives will trigger impulsive behaviour in order to give immediate relief to this negative state of mind (Cooper et al, 1998). When it comes to the distinction between social and individual motivations, socially motivated adolescents will more often be involved in risky sexual behaviour because they are more sensitive to pressures from others. Combining these distinctions leads to the following hypotheses:

1. Adolescents that report having sex in order to experience pleasure will score high on condom use.
2. Adolescents that report having sex in order to express love will score low on condom use.
3. Adolescents that report having sex to enhance their mood will score low on condom use.
4. Adolescents that report having sex in order to please others will score low on condom use.

The transactional motive for having sex is not based on the distinctions made in motivational theories and it is not clear how this motive is related to the other four motives. Theoretically only the sexual motivations that are individual and directed to pursuing positive outcomes will lead to less risky sexual behaviour. Because the transactional motive for having sex is not an individual motive, the following hypothesis can be formulated:

5. Adolescents that report having sex for the transactional motive will score low on condom use.

Interdisciplinarity

The research will be interdisciplinary, which means it involves different academic disciplines. In this research, the discipline of Psychology will be used to describe the influence of the individual motives for having sex on condom use of adolescents. The described motives for having sex are intercultural, for they can be applied in both Western and African cultures (Patrick et al, 2010), but the possible influence of these motives on the condom use might be very different. Therefore, the discipline of Anthropology will be used in order to explore this for the South-African context. The psychological motivations an adolescent has for having sex will be combined with some interpersonal factors, which means the research will also contain aspects of Sociology. These aspects will be taken into account as control variables. These processes will be explored in order to enlarge the knowledge about the South-African context in which this combination of personal and interpersonal factors takes place. By taking the different aspects together, a more complete view on the problem will be created.

Mediating factors

Previous research indicates the engagement in risky sexual behaviour or the practice of safe sex such as the use of condoms is determined by several personal, interpersonal and contextual factors, such as

gender roles, economic and power inequalities, type of relationship with the sexual partner, age and culture (Eggers, Aarø, Bos, Mathews & de Vries, 2013). In order to be sure the results of the current research truly reflect the influence of the different motives for having sex on the condom use of adolescents, those factors that according to previous research have the strongest influence on motives for having sex as well as on the condom use will be included in the study. As shown in figure 2, these factors are gender roles, experienced power in relationships, relationship type with the sexual partner and age of the adolescent. Including these factors as control variables also will create a more complete view on the influence of contextual and interpersonal factors on the relation between different motives for having sex and condom use by adolescents. Adding these control variables will make it more clear whether the effects of the different motivations for having sex influence the condom use of adolescents or if the outcome is determined by the other factors.

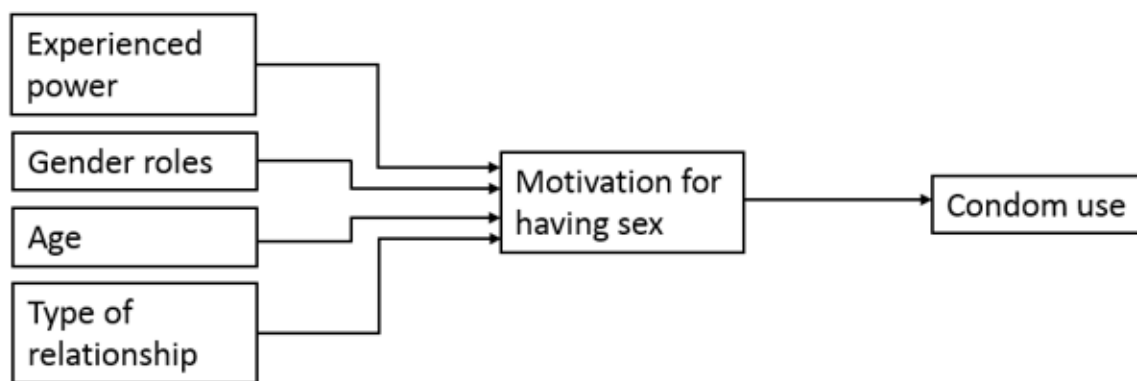


Figure 2: Control variables

Methods

The CHAMP-intervention

The current research will be conducted as part of the CHAMP-program, but due to a limited time range it will only make use of the baseline questionnaire used to measure the effect of the CHAMP-interventions. The CHAMP-program is an altered version of the Stepping Stones intervention, which originally was developed in Uganda. The aim of the program is to create a behavioural change which will lead to less risky behaviour. The intervention tries to approach more protective behaviour by building more gender-equal relationships and improvements in knowledge about risky sexual behaviour. Although the intervention has not led to decreases in HIV rates (Jewkes et al, 2006), the intervention has led to changes in gender beliefs and values and thus has an impact on the structural context of the risk (Harrison, 2010). The intervention is delivered by facilitators which are slightly older than the participants (Jewkes et al, 2006).

Instruments

In order to answer the research question and the sub-questions formulated, an altered version of the questionnaire of Jewkes et al. (2006) was used. The questionnaire was used in order to explore the effectiveness of the intervention of the CHAMP-programme. The questionnaire was altered in such a manner that every participating adolescent always had an option to fill in something at each question asked. Therefore, all questions about sex do have the answer possibility 'never had sex' was added.

In order to explore the different motives of the adolescents for having sex, items about the four motives for having sex from the questionnaire of Cooper et al (1998) and about the transactional sex were added to the questionnaire of Jewkes et al. (2006). The questionnaire where the questions about sexual motives originated from is validated by Cooper et al (1998) and has been successfully used by more researchers afterwards (Gebhardt et al, 2003). Questions about four of the motives (enhance mood, experience pleasure, express love, please others) were based on the article of Cooper et al (1998), where an extended questionnaire of 29 items was used. Per motive, one of the three questions that loaded the highest was picked from this questionnaire. For the motive to experience pleasure, the following question was used: "have you ever had sex because it feels good?" For the motive to express love, the following question was used: "have you ever had sex to make you feel more emotionally connected to the one you had sex with?" For the motive to enhance one's mood, the following question was used: "have you ever had sex to make you feel better when you are feeling down?" For the motive to please others, the following question was used: "have you ever had sex because of the fear that otherwise others will gossip about you?" For all these four questions, the adolescent had to pick one of the following possible answers: 'yes, with a condom,' 'yes, without a condom,' 'No, never had sex for this reason,' 'never had sex'.

The last motive (transactional sex) was added because a previous research concluded that it is an important motive for having sex in South Africa. In order to explore the occurrence of this transactional motive and its link with condom usage, the following question was asked: "have you ever had sex to get material things such as money, clothes, jewellery or phones in return?" Also, for answering this question, the adolescent had the possibility to pick one of the following answers: 'yes, with a condom,' 'yes, without a condom,' 'No, never had sex for this reason,' 'never had sex'.

Measuring control variables

As described above, other factors might also play a role in the relationship between the different possible motives for sex and condom use. For measuring the influence of these control variables on condom use, question (198) 'the last time you had sex did you use a condom?', with the answer possibilities 'Yes' and 'No' was used for this. This question and not the questions to measure the

motives was used because in this manner the influence of the control variables could be measured for the whole sample instead of only for those adolescents that had sex for a particular motive. In order to measure the control factors, they were operationalized in the following manner:

Gender. In order to explore the gender of the adolescent, in the questionnaire was asked if the adolescent is a boy or a girl.

Experienced power. Previous research shows the experienced power in relationships plays a role in who is making the decision to use a condom. Therefore, the experienced power of the adolescents was explored by questions about ideas on the role of men and women in a relation and the power to make decisions. The following three questions about ideas on condom use were used to explore the experienced power in relationships: “(60) If I asked my partner to use a condom, s/he would think I am having sex with other people,” “(62) I could definitely ask my girlfriend / boyfriend to use a condom,” “(64) I can decide if I want to use a condom the next time I have sex.” These questions are answered on a four-point scale, ranging from ‘strongly agree’ to ‘strongly disagree’.

After conducting a factor analysis, one factor could be identified with an Eigen value of at least 1.0., which explained 44.9% of the total variance. After doing a reliability test, Cronbach’s Alpha was .37, which indicates the questions are not reliable. After deleting question (60), the Cronbach’s Alpha increased to .42, which still not meets the criteria. Therefore, it was chosen to select the most relevant item and use it single in the current study. The experienced power in the sexual relationship therefore was measured by question (64), “I can decide if I want to use a condom the next time I have sex.”

Type of relationship. The type of relationship adolescents have with their sexual partners influences condom use directly as well as the motives the adolescents have to be engaged in sexual behaviour. In order to explore what type of relationship the adolescents have with their sexual partner, the following question was used. “(230) The last time you had sex, was it with a main partner, makhwapeni or once off partner or ex-partner?” In answering this question, the adolescent had the possibility to pick out more than one of the following answers: ‘Main partner, Makhwapeni, Once-off, Ex-partner, I never had sex.’ Having a makhwapeni means the adolescent is having an additional boy/girlfriend next to their main partner.

Age. The age of the adolescent was explored by asking the date of birth of the adolescent.

Participants

The study was executed at six secondary schools in Limpopo, in South Africa. 662 adolescents joined the study and those adolescents that never have had sex were excluded from the study. When looked at

the descriptive statistics, 247 students answered the question 'have you ever had sex' with 'yes'. However, it can be seen that some of the students that filled in to have had sex, answered the questions about their motives for having sex with 'I have never had sex before'. This means the questions about the motives for having sex were not fully clear to all adolescents. However, a logical conclusion might be that those students that made this mistake actually had to fill in 'I have never had sex for this reason'. Namely, some of them filled in to never have had sex on only half of the questions about their sex motives, but did give a good answer on the other questions. Since these students seem to not fully understand the questions, they were filtered out the current study and after that, 167 adolescents remained within the current study. However, at question (198) 'Have you ever used a condom?' another 13 students answered the question with 'I never had sex'. In order to be sure no students that did not had sex before were included in the study, these 13 students also were filtered out and after that 151 students remained within the study. Finally, at question (230) about whom they last have had sex with, another 7 of the remaining students filled in to never had sex before. These students were filtered out the study as well, so in the end 143 adolescents participated in the current study. This is 57,9% of the original number of adolescents that reported to have had sex before.

The adolescents that were included in the current study were in grades 8 to 10, in the age group of 13 to 25 years, of which most students were in the ages of 14 to 18 ($M=17$). Of these adolescents 92 were boys and 59 were girls.

Procedures

The questionnaire was filled in by adolescents that participated in the CHAMP-program. Before joining the current study, the parents of the adolescents gave their approval by signing a parental consent form and before the start of the questionnaire the adolescents themselves filled in a consent form as well. The questionnaire took place at the schools of the adolescents and during school hours in the afternoon. The entire questionnaire consisted of 350 questions that were in English. Filling in the questionnaire took approximately 2,5 hours.

Although a few of the children worked through the questionnaire at their own pace, all questions were read out loud for the children when they filled in the questionnaire. This was done to make sure the children understood all questions well and to let them finish the questionnaire at the same time. The reading was done by the six life skill facilitators of the CHAMP program and five Dutch students. All adolescents were told the questionnaire was confidential and that filling in the questions was on voluntary basis, which means that they did not have to fill in an answer to a question if they did not want to. Also, the participants were informed they could ask questions before, during and after the filling in of the questionnaire. Halfway the questionnaire the participants received

something to drink and a cupcake and after the completion the questionnaires were collected by the life skill facilitators and the students.

Data Analysis

In order to explore the coherence between the items about the different motivations for sex the adolescent can have, a factor analysis was used. By using a factor analysis it will also be explored where to place the transactional motive for having sex within the theoretical distinction. The questions about whether a condom was used when having sex for a certain motive were split into two variables. The first variable is about whether the adolescent ever had sex for this motive (1= did not have sex for this motive, 2= did have sex for this motive), the second about whether a condom was used when the adolescent was having sex for this motive (1= with a condom, 2= without a condom). In order to statistically test whether the questions about the motives for having sex actually measured different things, a factor analysis was done. It was expected that the questions were measuring different motives, so there were expected to be different subscales.

When it comes to the variable about whether the adolescent has had sex for the certain motive or not, the factor analysis showed only two factor with an Eigen value higher than 1.00. These factors declared 61.90% of the total variance. Looking at the scree plot, it is not entirely clear whether there are one or two factors above the bend and the component correlation matrix shows only a moderate correlation ($R^2= 0.06$). When limiting the analysis to one factor, all questions load sufficiently on the one factor, but this causes a drop in the explained variance, which then it reduced to 40.03%. Therefore, it is chosen that two factors fits the data better, which better applies to the theory as well. Based on a factor analysis with two factors, the motives of enhance mood, please others and transactional sex on the one hand and the motives to experience pleasure and express love on the other hand can be combined. When combining these motives, the division between avoiding negative outcomes versus pursuing positive outcomes remains left. The questions to measure whether the adolescent has had sex to avoid negative outcomes have a Cronbach's Alpha of .63, indicating the questions are reliable. However, the Cronbach's Alpha of .45 shows the questions to measure whether the adolescent has had sex to pursue positive outcomes are not reliable and thus that there is no internal consistency between the items. Since within the motives to pursue positive outcomes most adolescents were having sex to express love, the motives to pursue positive outcomes were measured by this single item.

When it comes to the variable about whether the adolescent uses a condom when having sex for this motive, the factor analysis showed again two factors with an Eigen value higher than 1.00. These factors declared 77,50% of the total variance, but when looking at the scree plot it again was not entirely clear whether there are one or two factors above the bend. The component correlation matrix

again shows only a moderate correlation ($R^2= 0.08$) between the two factors, indicating two factor fits the data better. However, when limiting the analysis to only one factor, the explained variance is 56,56%, which still is good and all factor loadings are higher than .4. When it comes to the variable about whether an adolescent uses a condom, it thus is not entirely clear whether a one-factor solution fits the data better. Based on theory it can be stated that a two-factor solution fits the data better, since the Pattern Matrix shows the items to express love and experience pleasure on the one hand and the items to please others, enhance mood and transactional sex on the other hand can be combined. This again fits with the theoretical distinction of pursuing positive outcomes versus avoiding negative outcomes. When calculating the Cronbach's Alpha for both factors, it can be seen that the items about if adolescents having motives to avoid negative outcomes are reliable with a Cronbach's Alpha of .80. also, the motives to pursue positive outcomes have a Cronbach's Alpha of .76, showing these items are reliable as well.

Based on the factor analysis, it thus can be stated that measurements best can be done while on the one hand combining the items of transactional sex, please others and enhance mood and on the other hand combining the items to experience pleasure and to express love. This goes for both the variable about whether the adolescent has sex for a certain motive or not and the variable on whether an adolescent uses a condom when having sex for a certain motive. When combining the variables, four new variables were created. The first is whether the adolescent had had sex to avoid negative outcomes and the second variable is whether the adolescent has had sex to pursue positive outcomes. These questions have the answer options 'never has sex for this motive', 'sometimes has sex for this motive' and 'always has sex for this motive'. The third question is whether the adolescent uses a condom when having sex to avoid negative outcomes and the final is whether the adolescent uses a condom when having sex to pursue positive outcomes. These questions have the answer options 'never using a condom', 'sometimes using a condom' and 'always using a condom'

The correlation between the different motives for having sex or possible coherent motives and condom use of adolescents will be measured by the Spearman correlations. In order to test the hypotheses and explore whether the motives significantly differ from each other when it comes to condom use, a Chi-Square test will be done. However, as described above, control variables might influence the relationship between the motive for having sex and condom use of adolescents. In order to explore the whether the motives are a good predictor of whether an adolescent uses a condom and to see if the control variables disturb this influence of the motives on condom use, a Multiple Regression will be used.

Motive for having sex	Express love		Experience pleasure		Enhance mood		Please others		Transactional	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Yes, with a condom	75	52,4%	69	48,3%	57	39,9%	28	19,6%	15	10,5%
Yes, without a condom	28	19,6%	27	18,9%	25	17,5%	10	7,0%	7	4,0%
Never had sex for this reason	40	28,0%	47	32,9%	61	42,7%	105	73,4%	121	84,6%

Table 1: Descriptive statistics of the different motives for having sex

Results

Descriptive statistics

Based on the descriptive statistics, it can be stated that for all different motives the majority of the adolescents that had sex for that specific motive reported to use a condom. It can be seen that the motive to express love is the most common motive for having sex, followed by the motive to experience pleasure. The motives that belong to the distinction of pursuing positive outcomes thus are the most common motives for having sex. On the other hand it can be seen that the percentages of adolescents reporting to have transactional sex are very low. 15.4% of the adolescents has had sex for this reason, of which 10,5% with a condom. Also, the rates of adolescents having sex to please others were really low, since 26,6% of the adolescents has had sex for this reason, of which 19,6% with a

condom.

Spearman's rho	Negative motive with or without condom	
Positive motive with or without condom	Correlation Coefficient	.382*
	Sig. (two-tailed)	.000
	N	81

Table 2: correlations between whether a condom is used when having sex out of the different motives

Spearman's rho	Having a negative motive or not	
Having a positive motive or not	Correlation Coefficient	.209*
	Sig. (two-tailed)	.011
	N	148

Table 3: correlations between whether an adolescent has sex for a certain motive

When looking at the correlations between the motives when it comes to whether the adolescent has had sex for the certain motive or not, it can be seen that the positive and negative motives are significantly correlated with each other, $r = .20$, $p = <.01$. The correlation is positive, which means that an adolescent who is having sex to pursue positive outcomes will be more likely to have sex to avoid negative outcomes as well. However, the correlation coefficient shows only a small effect. When looking at whether a condom was used when the adolescent was having sex out of the different motives, it can be seen that the

motives are significantly

I am able to decide to use a condom the next time I have sex	Experienced power	
	Number	Percentage
Strongly agree	40	29,0%
Agree	55	39,9%
Disagree	30	21,7%
Strongly disagree	13	9,4%
Missing	5	

Table 4 Descriptive statistics of the experienced power

Person who you last had sex with	Relationship type	
	Number	Percentage
Main partner	92	64,3%
Mahkwapheni	15	10,5%
Once-off partner	13	9,1%
Ex-partner	23	16,1%
Missing	0	

Table 5: Descriptive statistics of the relationship type

correlated with each other, $r = .38, p = <.05$. This correlation is positive, which means that adolescents that are using condoms when having sex to pursue positive outcomes are also more likely to use condoms when having sex to avoid negative outcomes. The correlation coefficient shows a moderate effect.

When it comes to the relationship type with the sexual partner, most of the adolescents last had sex with their main partner (64,3%), followed by their ex-partners (16,1%). 10,5% of the adolescents were having sex with a mahkwapheni and finally 9,1% of the adolescents last have had sex with a once-off partner. When measuring the power the adolescent experiences in his/her sexual relationship, 68,8% of the adolescents reported to be able to decide to use a condom the next time they were having sex, indicating that most of the adolescents experiences power in their sexual relationships. However, 21,7% disagreed and 9,4% strongly disagreed to be able to decide to use a condom the next time they were having sex.

Comparing the motives for having sex

A Chi Square test was conducted to explore whether differences exist between the two domains of motives found in the current study and their relation to condom use. The variables about whether the adolescent uses a condom when having sex for a specific motive were compared to each other. The criteria for the Chi Square test were not met when comparing the motives, since the expected frequency of a count that is less than five was higher than 20%. Therefore it is chosen to compare these motives by using the Fisher's Exact test, which suggests the results are exact as well within a sample with small numbers. Results show that the amount of adolescents using condoms when having sex to pursue positive outcomes was significantly different from the group that was having sex to avoid negative outcomes ($p = <.00$). The Cramer's V of .46 shows a reasonable cohesion between the variables. When looking at the cross tables, it can be seen that those adolescents that had sex to pursue positive outcomes more often used a condom.

Exploring the influence of control variables

A Multiple Regression was done to measure whether the motives for having sex influence the condom use of adolescents or if this relation is influenced by control variables. Out of the answers on the questions about motives for having sex a variable was created to measure whether the adolescents uses a condom. The final variable had a range from 1 to 8, with 1 meaning that the adolescent always uses a condom and 8 meaning that the adolescent never uses a condom. Although this variable actually is of an ordinal level, the number of variances possible makes it possible to use it as a continuous variable. For doing the Multiple Regression a hierarchical method was used. Since theory predicts that the motive for having sex is a significant predictor for whether a condom is used (Cooper et al, 1998), the motives of having sex to avoid negative outcomes and to pursue positive outcomes first were included in the model. After this, the control variables of gender, age, experienced power and relationship type with the sexual partner were included in the model.

Assumptions. Before interpreting the Multiple regression analysis, the assumptions must be checked:

- The variables: the dependent variable of whether an adolescent uses a condom might be considered as being of a continuous level. The other predicting variables must be of a continuous level or they should be categorical with two categories. Since this is a problem for the variables 'experienced power' and 'relationship type', dummy variables were created to compare the specific level of experienced power with the rest of the possibilities for the experienced power. The same is done for the relationship type of the adolescent, so the specific relationship type will be compared with the rest of the possible relationship types.
- Non-zero variance: in the descriptive statistics it could be seen that all variables have some variation in value.
- No perfect multicollinearity: in order to explore whether the predictors did not correlate too highly with each other, the correlations between the predictor variables were explored. Some of the predictor variables were significantly correlated with each other. However, when looking at the correlation matrix of the predictor variables, it can be seen that none of the variables were having a correlation coefficient higher than .80 (Field, 2009, p. 224). This indicates that although the variables were correlated, the predictors still were measuring different things. Also, when looking at the VIF, it can be seen that none of the predictors reaches a value of 10, indicating that there's no multicollinearity between the predicting variables.
- Homoscedasticity: the scatterplot did not show heteroscedasticity within the data, which means this assumption is met.

- Independence of the residuals: in order to check if the residuals were unrelated to each other, the Durbin-Watson test was used. The value of 1,77 shows a positive correlation between the residuals, but since the value is very close to the 2, it can be concluded that the residuals are uncorrelated (Field, 2009, p. 221).
- Normally distributed errors: in order to check whether the residuals were randomly distributed, the Normal Probability Plot is used. The reasonable straight diagonal line indicates that there are no deviations from normality. However, when looking at the histogram, it can be seen the sample is not normally distributed.
- Linearity: in order to check whether the outcome variables lie in a straight line, the Normal Probability Plot is used. Here it can be seen that the outcomes do not form a perfect linear relationship, but that they lie in a reasonably straight diagonal line.
- Outliers: in the scatterplot it can be seen that the model contains no outliers, although the scores also are not very concentrated in the middle of the plot.
- Influential cases: when looking at Cook's distance to consider the effect of a single case on the whole model, it can be seen that the mean value is 0,012. This indicates that there are no cases influencing the whole model.
- Sample size: when using Green's rule of thumb that is described in Field (2009, p. 222), it can be said that to test the overall model, a minimal sample size of 146 ($50+8k$) participants is needed. The current model has a sample of 143 participants, which is very minimal, but acceptable. In order to test the influence of specific predictor values, a sample size of 116 ($104+k$) participants is needed, so therefore the current sample has sufficient participants.

Interpretation of the model. The R^2 of .64 shows that the first model that uses the motives for having sex as predicting variables explains 64% of the variance of whether a condom is used or not. The adjusted R^2 has a value of .64, which is very close to the value of the R^2 , indicating that the model is very generalizable to the entire population. The R^2 Change is significant (F Change = 103,18, $p = <.00$), indicating that the increase in explained variance is significant.

The second model which also includes the control variables causes an increase in the R^2 of .06, increasing the explained variance of the model to 70%. When comparing the explained variance of the model including the control variables to the model that only includes the motives for having sex, a significant R^2 Change can be seen (F Change = 2,39, $p = <.01$).

When looking at the outcomes of the ANOVA, it can be seen that the outcome predicted by the model including is significantly better than when the outcome was predicted by its mean (F = 103,18, $p = <.00$). The second model predicts the outcome significant as well (F = 22,75, $p = <.00$), indicating that

the model including the control variables predicts the outcome better than the model that only includes the motives for having sex.

Interpretation of the independent variables. In order to explore which variables contributed to the prediction of the condom use of the adolescents, the influence of the independent variables must be explored. The statistics for this model are shown in table 6. When looking at the first model, the motive of having sex to avoid negative outcomes significantly contributes to whether an adolescent uses a condom during sex ($t(115) = 13.51, p = <.00$) as well as the motive to pursue positive outcomes ($t(115) = 2.32, p = <.02$). Both motives show a positive relationship with the outcome. Because of the values of the outcomes variable (1 means always using a condom and 8 means never using a condom) a positive relationship between the predictor and the outcome variable means the adolescent has a stronger tendency to not use a condom. The positive relationship thus indicates that when adolescents have a stronger tendency to have sex for the specific motive, their tendency to not using a condom also increases. The b -value of 3,72 for avoiding negative consequences compared to the b -value of 0,47 for pursuing positive outcomes, shows that this effect is much stronger for adolescents that are having sex to avoid negative outcomes. The motive of having sex to avoid negative outcomes has the largest beta coefficient of .77 and the motive to have sex to express love has a beta coefficient of .13. This means the motive of avoiding negative outcomes also is a much stronger predictor of whether a condom is used during sex than the motive to pursue positive outcomes.

When looking at the second model including the control variables, it can be seen that the motives to avoid negative outcomes ($t(106) = 13.76, p = <.00$) and to pursue positive outcomes ($t(106) = 2.94, p = <.00$) still significantly contribute to whether an adolescent uses a condom. The effect of these motive for having sex on condom use thus is not disturbed by adding the control variables to the model. The only control variable that significantly contributed to whether an adolescent uses a condom was when the adolescent last had sex with a mahkwapheni ($t(106) = -3.61, p = <.00$). Having sex with a mahkwapheni had a negative effect on whether an adolescent uses a condom ($b = -1,06$), indicating that adolescents having sex with a mahkwapheni more often use a condom. The beta coefficient of having sex with a mahkwapheni (-.20) and having sex to pursue positive outcomes (.17) was comparable, indicating that these variables have a comparable degree of importance within the model. However, the motive of having sex to avoid negative outcomes had a much higher beta coefficient (.78), indicating that this variable was the strongest predictor of whether an adolescent uses a condom during sex.

Influence of variables on condom use	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
Model 1					
(Constant)	-3,216	,466		-6,906	,000
Having a negative motive or not	3,715	,275	,767	13,507	,000
Having a positive motive or not	,471	,203	,132	2,324	,022
Model 2					
(Constant)	-2,827	1,587		-1,781	,078
Having a negative motive or not	3,769	,274	,778	13,763	,000
Having a positive motive or not	,598	,203	,167	2,944	,004
Gender, boys	-,216	,183	-,066	-1,183	,240
Experienced power: strongly disagree to decide condom use	,571	,574	,102	,994	,322
Experienced power: disagree to decide condom use	,041	,512	,011	,081	,936
Experienced power: agree to decide condom use	,325	,503	,098	,646	,520
Experienced power: strongly agree to decide condom use	-,109	,512	-,031	-,213	,832
Last had sex with mahkwapheni	-1,064	,294	-,203	-3,614	,000
Last had sex with once-off partner	,426	,310	,076	1,376	,172
Last had sex with ex-partner	-,388	,247	-,089	-1,574	,118
Age	-,019	,041	-,026	-,455	,650

a. Dependent variable: UsingACondom

Table 6: Statistics of Multiple Regression on condom use

Discussion

Previous research indicates the effectiveness of a prevention method is shaped by the social conditions in which it takes place (Hart et al, 2004). Since the social context and interpersonal relationships shape the individual sexual behaviour (Sponk, 2011), programmes tending to change the behaviour of the adolescents must be based on the environment in which the behaviour takes place (Cooper et al, 1998). One aspect of the individual sexual behaviour is the motive to have sex. Previous research shows that the motives adolescents have for sex influence their engagement in risky sexual behaviour (Cooper et al, 1998). However, as the individual behaviour is formed by the social context and interpersonal relations in which it occurs, Western results about sexual behaviours cannot simply be applied in the South African context. It therefore is important to explore the aspects of the behaviours of South African adolescents. Based on this, one can state motivations of the South African adolescents for having sex must be explored in order to improve the understandings in how their risky sexual behaviour best can be intervened (Cooper et al, 1998; Patrick et al, 2010). The current research was part of the CHAMP-program and took place in an rural in which people live under poor socio-economic conditions.

The research question of the study was: *What is the relationship between the motivation for having sex and the use of the condom of the South-African adolescents aged 14 to 18 at high schools in the Limpopo province in South Africa?*

Based on the presented theory, the following hypotheses were formulated about the influence of the five presented motives for having sex on condom use.

1. Adolescents that report having sex in order to experience pleasure will score high on condom use.
2. Adolescents that report having sex in order to express love will score low on condom use.
3. Adolescents that report having sex to enhance their mood will score low on condom use.
4. Adolescents that report having sex in order to please others will score low on condom use.
5. Adolescents that report having sex for the transactional motive will score low on condom use.

In order to explore which motive leads to most condom use, it first was tested whether the distinction in the five motives was present in the current study. After doing this, it was tested whether the different motives significantly were different from each other when it comes to their influence of the adolescents' engagement in risky sexual behaviour. Finally, it was tested whether condom use of adolescents was influenced by other control variables.

The reasons for the South-African adolescents for having sex: five distinct motives

As a result of the factor analysis, it can be concluded that within the questions asked two motives for having sex can be distinguished. Based on this, the motives of enhance mood, please others and transactional sex on the one hand and the motives to experience pleasure and express love on the other hand can be combined. This combination indicates the theoretical distinction between pursuing positive outcomes and avoiding negative outcomes is leading within the current study and that there is not crosscut by individual and social motives. This is not in line with previous research, in which the theoretical distinction between avoiding negative outcomes and pursuing positive outcomes is not sufficient in explaining the patterns of risky sexual behaviour (Cooper et al, 2011). Looking back at the theoretical framework, it was stated that individually motivated people are more likely to practice safe sex because they experience more autonomy and are more able to act in line with their priorities (Ingledeu & Ferguson, 2007). Socially motivated people on the other hand were oriented towards gaining approval of others (Ryan & Deci, 2000). Since adolescence is a period in one's life in which someone is more sensitive for risk taking behaviour as well as for peer pressure, it can be said that adolescents that have social motives for sex are more sensitive for pressures to not use a condom. The absence of this additional distinction in the current research might be explained by the rates of condom use of the adolescents. The majority of the adolescents that have had sex for a certain motive reported

to do this with a condom, which might indicate that adolescents do not feel the peer pressure to not use a condom. Another possible explanation for this might be that the motives for having sex are not measured in a right way, since there was only one question per motive. It therefore might be possible that the question did not measure the motive in the right manner. The absence of the distinction between individual and social motives might as well indicate that within the current sample another distinction is present that fits the sample better. However, since the current study tested for only a limited range of motives for having sex, this is not clear.

The factor analysis also shows where to place the transactional motive for having sex. The transactional motive for having sex was added to the theoretical distinction of Cooper et al. (1998), since their distinction was based on Western motives for having sex, but previous research shows that transactional sex plays a role in South Africa as well (Leclerc-Madlala, 2003). Since the transactional motive was not present in previous research about the influence of motives for having sex on risky sexual behaviour, it was not clear whether it really formed an additional motive or if it could be part of one of the four domains distinguished already. Based on a factor analysis, it can be concluded the transactional motive does not form an additional motive, but fits within the domain of motives to avoid negative outcomes. When applying this to the theory, it can be said that those adolescents that have transactional sex mainly do this in order to avoid negative outcomes, such as avoiding poverty (Eaton et al, 2003). Although previous research also indicates that adolescents can have transactional sex to improve their status in youth cultures (Leclerc-Madlala, 2003), this seems not present in the current sample.

The relation between the sexual motives and condom use

According to theory presented in the theoretical framework individual differences in motives underlying sexual motives can be used to predict an adolescent's engagement in risky sexual behaviour (Cooper et al, 1998). Results of the current study do indicate the final two different motivations that could be distinguished can be used to predict the adolescents' condom use, since the Chi Square test shows the motives for having sex significantly differed from each other when it comes to condom use, showing that adolescents having sex to pursue positive outcomes more often use a condom. In order to explore if the motives for having sex significant predicted whether an adolescents uses a condom, a Multiple Regression analyses was used, which included the control variables gender, type of relationship, experienced power and age. Results of this analysis shows that the motives for having sex are a significant predictor for whether an adolescent uses a condom. Also it shows that especially the motive to avoid negative outcomes had a strong influence, showing having sex to avoid negative outcomes strongly predicted to non-use of a condom. This means that even when controlling for the variables that in previous research have shown to have an big influence on whether an

adolescent uses a condom, the motives for having sex still are a significant predictor of condom use. These results thus support the theoretical assumption of Cooper et al (1998) that behaviour can be understood based on the motives it originates from. The results clearly show that the engagement in risky sexual behaviour is formed by the motives of the adolescents for having sex.

Although the significant differences between the motives supported theory, the results about which motives were related to more condom use were not completely in line with the hypotheses. Based on theory it was hypothesized that only those adolescents having sex to experience pleasure will score high on condom use, since they were individually motivated and were having sex to pursue positive outcomes. It also was hypothesized that when adolescents are having sex for the other motives they will score low on condom use. Since the distinction between individual and social motives seems not present in the current study and only the one between the avoidance of negative outcomes and pursuing positive outcomes has been found, the theory about the distinction between positive and negative motives and their influence on condom use could be applied to formulate hypotheses about the current sample. Based on that, it could be expected that adolescents having sex to express love and to experience pleasure would score high on condom use and that adolescents having transactional sex, to enhance their mood or to please others would score low on condom use. Results indeed show that those adolescents having sex to pursue positive outcomes are more likely to use condoms than those having sex to avoid negative outcomes. This means the results of the current study only do not support hypothesis 2 about the relation of having sex to express love, but this can be explained by the absence of the theoretical distinction between individual and social motives. The rest of the hypotheses thus are confirmed by the research results.

When looking back at the theory, the results of the current study thus support the theoretical assumption that expected negative outcomes trigger more powerful emotions (Taylor, 1991), which triggers impulsive behaviour to give immediate relief to the negative state of mind (Cooper et al, 1998). These impulsive behaviours are related to increases in risk-taking behaviours (Boyer, 2006) and when applying this theory to risky sexual behaviour they can be associated with a decrease in condom use. The results of the current study are thus conform theory and next to that are also in line with previous research.

Influence of control variables

Although previous research clearly showed that the control variables included within the current study have an effect on condom use, the only factor that within the current study significantly contributed to the prediction of condom use was if the adolescent was having sex with a mahkwapheni. According to previous research, the type of relationship the adolescent has with its sexual partner plays an important role in the adolescents motive for having sex as well as whether a condom is used (Cooper et al, 1998;

Gebhardt et al, 2003). Based on previous research, it is stated that adolescents that are having sex with their main partners use the least condoms, because of the trust within the relationship with the main partner (Gebhardt et al, 2003). A mahkwapheni is an additional sex-partner next to the main partner, and since this relationship is only based on sex, it can be stated that the level of trust is lower when having sex with a mahkwapheni. This can explain the higher rates of condom use. However, this does not explain why adolescents having sex with once-off partners were not significantly more likely to use a condom during sex. This indicates that within the current sample other theoretical explanations for the influence of the relationship type might be present than in previous research.

Since the other control variables did not significantly contribute to the condom use of adolescents and the influence of the motives for having sex even became bigger after adding the control variables to the model, it is clear that the theoretical assumption of Cooper et al (1998) fits the current sample well. Based on the results it can be stated that engagement in risky sexual behaviour is shaped by the motive for having sex. Since individual desires and decisions are based on contextual and interpersonal factors (Sponk, 2011), however, the absence of the distinction between individual and social motives shows that within the South African context other additional motives as well as theoretical explanations for having sex than in Western settings might be present. Results of the current research thus show that motivational aspects of the behaviours of South African adolescents must be explored in order to improve the understandings in how their risky sexual behaviour best can be intervened. Motives for having sex show to be an important basis within the creation of effective prevention programmes, since they shape the condom use of the adolescents.

Practical implications

Results of the current sample show the different motives significantly predicted the condom use of adolescents and that this influence remained when controlling for the age, gender, experienced power and relationship type of the adolescents. It therefore can be said it is important for the interventions to take the motives that are present into account. Also, it can be seen that having negative motivations for sex strongly predicts low rates of condom use. Also, the results show the positive motives for having sex are most present in the current sample and that these motives when compared to motives to avoid negative outcomes can be associated with higher rates of condom use. These results have two practical implications for interventions to be more effective. Although for all motives adolescents were using condoms most of the time, adolescents were using less condoms when they were having sex to avoid negative outcomes. Practically, this could mean that since positive motives thus can be associated with more condom use, interventions should motivate adolescents more to only have sex for these reasons. Another practical implication can be that interventions should merely focus on promoting condom use when adolescents are having sex to avoid negative outcomes.

Limitations

A major limitation of the current study is that a lot of adolescents made mistakes by filling in the questions, since they filled in to never have had sex before at some questions while answering the other questions like they did have. This might have been caused by the length of the questionnaire as well as by the language, as the questionnaire was in English and the first language of the adolescents is Zulu. Although these students were filtered out the current study, it is not clear whether the adolescents that filled in other answers did understand the questions properly. This made clear that filling in the questionnaire was complicated for a large share of the adolescents. In addition to this, the filtering out of adolescents also caused a major decrease in the number of participants of the current study, making analyses less reliable.

An additional important limitation of the current research is that it is based on the recollection of past behaviour. The memories of the adolescents might be influenced by other events or by emotions and therefore the results might not be accurate. Also, the results are based on conscious motives for having sex, which means implicit motives might not have been measured. Furthermore, the results are based on self-reports. This means the adolescents might have had the tendency to answer the questions in a socially desirable manner. However, a lot of the adolescents admitted they have had unprotected sex, which is not a socially desirable answer.

A final limitation of the current research is that it takes into account a limited range of motives for having sex. Although previous research has found the theoretical distinction between avoiding negative outcomes versus pursuing positive outcomes explains the individual differences underlying sexual behaviour (Cooper et al, 1998), additional motivational distinctions might be present as well.

Recommendation for future research

The current research forms a foundation for future research about the motives for having sex of the current sample. Since previous research on the relationship between motives for having sex and condom use are conducted in either a Western setting (Cooper et al, 1998, Gebhardt et al, 2003) or in an urban area (Patrick et al, 2010) and the current research took place in a rural area in South Africa, other motives for having sex might be present in the current sample. The current research tested for only a limited range of motives for having sex, so future research can look for additional motives that now were not taken into account. It thus can explore further which motives for having sex are present in the current sample. By doing this, it can also be explored which theoretical distinctions fit the sample better. This can be done by qualitative research. In addition to this, future research can be focused on exploring which factors do influence the condom use of adolescents within the current

sample, since the control variables of the current study not all were not useful for predicting the condom use. Also, future research better can explore the influence of motives for having sex on condom use by using continuous variables. This will increase the number of possible statistical tests, making it easier to analyse the data. Finally, future research should evaluate the questionnaire, since the mistakes that were made indicate that a lot of children did not understand the questions properly. This might cause biases in the results. In order to improve the questions, a pilot study can be done to check whether the children understand the questions properly and which questions should be altered.

Conclusion

Based on a functional approach of behaviour it can be stated that behaviour best can be understood in terms of the motivations it originates from, and based on these lines of reasoning it can be said that that engagement in risky sexual behaviour can be explained by the motive for having sex. Motives of having sex to avoid negative outcomes versus pursuing positive outcomes significantly differed from each other when it comes to condom use, even when controlling for the variables of gender, age, experienced power and relationship type. Research results show that South African adolescents living in a rural area under poor socio-economic circumstances that are having sex to avoid negative outcomes are most likely to not use a condom during sex. It can be concluded that interventions which are aimed at reducing the engagement in risky sexual behaviour will be most effective when they take into account the positive motives for having sex of the participants.

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