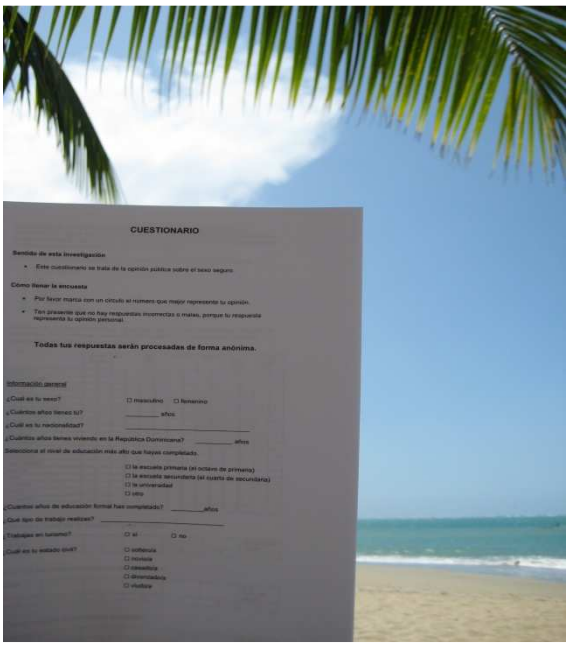
Bachelor thesis

Bachelor of Psychology in the field of Health and Safety

Determinants of sexual behavior in the Dominican Republic: The explanatory quality of the Theory of Planned Behavior and the Prototype Willingness Model



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Abstract

Background. The estimated HIV/ AIDS prevalence in the Dominican Republic is 3.2% of the population between 15-49 years; with unprotected heterosexual intercourse identified as primary mode of transmission. Many Dominicans are sexually active at an early age, have multiple partners and do not use condoms consistent. Gender inequalities put young girls and women at increased risk for HIV infection. **Research.** This cross-sectional study examines the explanatory quality of the Theory of Planned Behavior (TPB) and the Prototype Willingness Model (PWM) concerning intention to use condoms, willingness to have protected sex, willingness to have unprotected sex and actual consistency condom use (separated based on gender). The relation of these constructs to stigmatization is examined. **Method.** A survey is conducted in the Dominican Republic using a multi-item questionnaire. In total data of 90 participants are analyzed (*M*=23.8 years; male=52, female=38). **Conclusion.** The TPB represents better explanatory quality concerning consistent condom use than the PWM, while the unsafe sex constructs still display more added value than the safe sex constructs. Stigmatization appears to be an important psychosocial cultural variable. Theoretical implications are discussed.

Samenvatting

Achtergrond. De geschatte HIV/AIDS prevalentie in de Dominicaanse Republiek is 3.2% in de populatie tussen 15-49 jaren; onbeschermde seksuele bijslaap is geïdentificeerd als de meest voorkomende manier van transmissie. Vele Dominicanen zijn al op jonge leeftijd seksueel actief, hebben meerdere partners en gebruiken condooms niet consistent. Geslachtsverschillen veroorzaken voor meisjes en vrouwen een verhoogd risico van HIV infectie. **Onderzoek.** Dit cross-sectionele onderzoek beschrijft de verklaarende waarde van de Theory of Planned Behavior (TPB) en het Prototype Willingness Model (PWM) ten opzichte van intentie om condooms te gebruiken, bereidheid beschermde sex te hebben, bereidheid onbeschermde sex te hebben en de actuele condoomgebruik (gesplitst op basis van geslacht). De relatie tussen deze constructen en stigmatisatie is onderzocht. **Methode.** Een survey is in de Dominicaanse Republiek doorgevoerd door middel van een multi-item vragenlijst. In totaal worden de gegevens van 90 respondenten geanalyseerd (*M*=23.8 jaren; mannen=52, vrouwen=38). **Conclusie.** De TPB heeft een beter verklaarende waarde van consistent condoom gebruik dan het PWM, terwijl de onveilig seks constructen nog meer waarde toevoegen dan de veilig seks constructen. Stigmatisatie blijkt een belangrijke psychosociale culturele variabel te zijn. Theoretische implicaties worden bediscussieerd.

1. Introduction

1.1 The HIV/AIDS problem and the sexual behavior of the population in the Dominican Republic

The Dominican Republic is a nation situated on the second-largest island in the Greater Antilles, Hispaniola. This Caribbean island contains the Dominican Republic on its eastern third and Haiti on the western part. The Dominican Republic is the second largest Caribbean nation (both by area and population); a lower middle-income developing country primarily dependent on natural resources and tourism (Central Intelligence Agency World Fact Book, 2009).

The problem of HIV/AIDS in the Caribbean, especially in the Dominican Republic becomes apparent by looking at the existing statistics (UNAIDS, 2009; CIA World Fact Book, 2009). The most recent estimates of the Dominican Republic's HIV/ AIDS prevalence is 1.2% (3.2% in rural areas) of the population between 15-49 years (UNAIDS, 2008). Men and women within this age group are not equally affected (63% men and 37% women). The primary mode of HIV transmission is unprotected heterosexual intercourse (75.7%), but it is also mentioned that transmission through unprotected (male) homosexual intercourse occurs more often than estimated (10%; UNAIDS, 2009). The Dominican Republic accounts together with neighboring Haiti for almost three-quarters of the Caribbean's HIV cases. There are approximated 240.000 people living with HIV in the Caribbean, including the 20.000 who were newly infected in 2008. An estimated 12.000 people in the Caribbean died of AIDS in this year, and AIDS remains one of the leading causes of death among persons aged 25 to 44 years (UNAIDS 2009).

Male and female adolescence is a group at high risk of exposure in the Dominican Republic. This is not surprising, considering the fact that half of all new HIV infections worldwide are in young people aged 15-24 years (UNAIDS, 2009). In the Dominican Republic, young people aged 15-24 years account for nearly 30% of all reported AIDS cases with only a slight difference between gender (52% male and 48% female; UNAIDS, 2009).

A number of contextual variables influence the spread of HIV in the Dominican Republic. It is assumed that gender inequalities put young girls and women at increased risk for HIV infection biologically and due to socioeconomic factors (van der Kwaak, Wegelin-Schuringa, & Dasgupta, 2006; Wingood & DiClemente, 2000). Economic and social dependence on men often limits women's power to refuse sex or to negotiate the use of

condoms; marital violence or sexual violence against women in general is another factor contributing to the spread of HIV (UNAIDS, 2009). Additionally, the high levels of poverty (population below poverty line: 42.2%) and unemployment (unemployment rate: 15.5%) has to be considered (CIA World Fact Book, 2009), because these factors can affect the epidemic in the Dominican Republic. Kalichman et al. (2005) pointed out that an indirect association between poverty and HIV infection is indisputable (Kalichman, Simbayi, Jooste, Cherry, & Cain, 2005). Moreover tourism is the most important economic factor in the Dominican Republic; recently the tourism sector contributes 13.8% of total employment (World Travel & Tourism Council, 2010). A literature review (Padilla, Guilamo-Ramos, Bouris, & Reyes, 2010) identified that in tourism areas in the Caribbean; sexual contacts involve a higher risk for HIV transmission, because of high rates of HIV risk behaviors, like unprotected transactional sex. (Transactional sex is defined as exchanging money, food, gifts or work for sex; Norris, Kitali, & Worby, 2009).

The most important factor concerning the spread of the virus is unsafe sexual behavior. Many young people are sexually active at an early age, are not monogamous, and do not use condoms regularly (Shelton, Halperin, Nantulya, Potts, Gayle, & Holmes, 2004; Measor, 2006). This is a group with high vulnerability in the Dominican Republic. According to UNAIDS statistics (2008), 39% of the Dominican men and 9% of the Dominican women in the age group of 15-24 years had more than two different sexual partners in the previous year. Another research revealed that only 44% of women in that age group consistently used condoms at high-risk sex in the last 12 months; while 70% of men used condoms for protection under those circumstances (high-risk sex is defined as sexual intercourse with a non-cohabiting, non-marital sexual partner; UNAIDS, 2008).

1.2 Social Cognitions and their impact on risky sexual behavior

Social cognition models have provided a deeper understanding of the proximal determinants of health behavior (overview: Conner & Norman, 1995). Social cognitions reflect the way an individual perceives, represents and interprets information about him-/herself, and information about other groups and individuals. The term moreover describes the ability to construct representations of the relations between oneself and others, and to use those representations flexibly to guide social behavior (Adolphs, 2001).

In the contemporary research, the social cognitions concerning the sexual behavior of the Dominican population in the age group of 15 to 30 years old will be identified and explained by means of the Theory of Planned Behavior (Ajzen, 1991) and the Prototype

Willingness Model (Gibbons & Gerrard, 1995). In this respect, risky sexual behavior is defined as unhealthy behavior through not using condoms while having sexual intercourse, and healthy sexual behavior means having protected sex.

The Theory of Planned Behavior (TPB) illustrates the intentional pathway to behavior and denotes the factors, which determines a person's decision to follow a particular behavior. This theory is one of the most frequently used models in explaining condom-use behavior (Ajzen, 1991; Boer & Westhoff, 2006; Sheeran, Abraham, & Orbell, 1999). A research conducted by Boer and Mashamba (2005) moreover clarifies that social cognitions based on the TPB are able to predict intended condom use in non-western culture. The Prototype Willingness Model (PWM), in contrast, displays the non-intentional pathway to behavior by means of safe sex and unsafe sex prototype favorability. These prototype images are evaluated regarding the similarity and attractiveness, and the willingness to behave like the defined prototype. In relation to condom-use behavior, Blanton et al. (2001) found out that the willingness to engage in unsafe sex can be predicted by evaluations of prototype favorability (Blanton, van den Eijnden, Buunk, Gibbons, Gerrard, & Bakker, 2001).

It is expected that social cognitions, in terms of unsafe (risky) as well as safe sexual behavior have considerable impact on the intention and the willingness to use condoms, and on the consistency of condom use of the Dominican population.

1.2.1 Theory of Planned Behavior

The first psychological theory used in the present research is the Theory of Planned Behavior, an extension of the Theory of Reasoned Action by Fishbein and Ajzen (TPB; Conner & Norman, 2005; Ajzen, 1985). Due to the fact that this research deals with the risky sexual behavior of the population in the Dominican Republic it is useful to illustrate the coherence of the TPB in terms of condom use.

The TPB theorizes that attitude, subjective norm and perceived behavioral control are constructs related to intended condom use (for review: Albarracín, Johnson, Fishbein, & Muellerleile, 2001; Godin & Kok, 1996). The attitude towards the specific behavior condom use is a function of the beliefs a person has about the consequences of condom use and can either be favorable or unfavorable (Sutton, McVey, & Glanz, 1999). Subjective norm refers to the perception of approval or disapproval from significant others regarding the use of condoms. This perception of expectations of significant others is pulled together with the individual's motivation to comply with those expectations. Perceived behavioral control (PBC) refers to the appraisal of whether the use of condoms is completely up to the actor

(Ajzen, 2002). Besides PBC is assumed to reflect the obstacles that one encountered in past behavioral performances, therefore the theory proposes that PBC can influence behavior directly (Albarracín et al., 2001). Furthermore the Theory of Planned Behavior postulates that the decision to engage in a particular behavior is the result of a rational process that is goal-oriented; consequences are evaluated and a decision to act or not act is made. This decision is generally referred to as behavioral intention in terms of motivation of an individual to exert effort to perform a particular behavior. The TPB moreover declares that the intention to engage in a particular behavior is a strong and proximal determinant of behavior, thus the intended condom use is a good predictor of the actual use of condoms (Albarracín et al., 2001; Armitage & Connor, 2001).

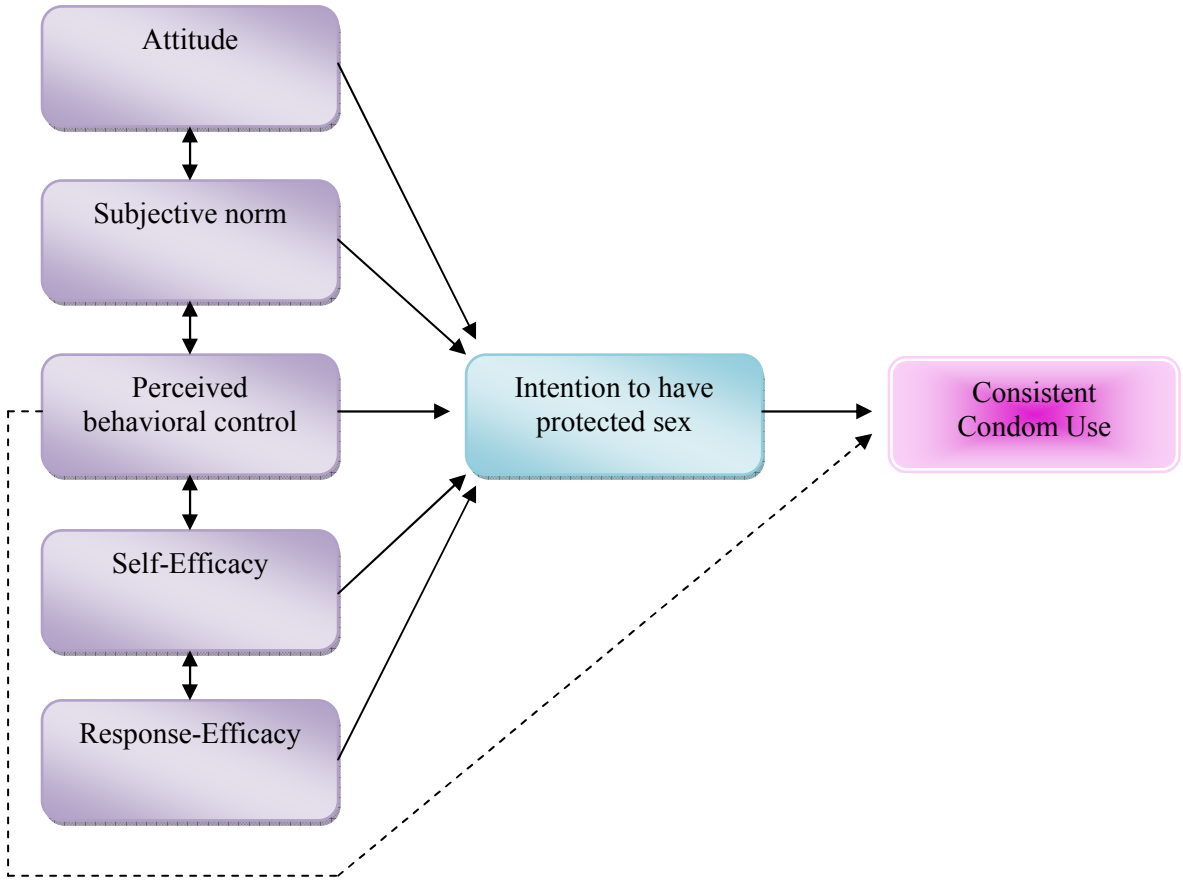
Moreover two constructs from Protection Motivation Theory (PMT; Maddux & Rogers, 1983; Rogers, 1975) are proven to be valuable in the contemporary context and therefore concerning this research (Boer & Mashamba, 2007). The PMT is a theoretical framework that aims to explain health behavior motivation from a disease prevention perspective and comprises two variables assessing coping resources that the individual has available in dealing with the threat, by name self-efficacy and response-efficacy (Rogers, 1975). The construct self-efficacy describes the person's personal estimated ability to successfully perform the protective behavior, thus the use of condoms. The response-efficacy refers to the person's expectancy that carrying out the recommendation to use protection can remove the threats associated with the non-use of condoms (e.g. pregnancy, sexually transmitted diseases). Consequently this construct concomitant acts as a health-related attitude, contrary to the exclusive sex-related attitude by TPB (Milne, Sheeran, & Orbell, 2000; Rogers, 1975). According to Maddux & Rogers (1983) protection motivation is usually assessed with the intention to use condoms.

Besides it is important to note that Ajzen (2002) acknowledged that there may be some similarity between the constructs perceived behavioral control (TPB) and self-efficacy, although further research indicated that these constructs may be different (Norman & Hoyle, 2004). Due to this dissension and further as a result of the prior demonstrated usefulness, both constructs are used in the contemporary research (Milne, Sheeran, & Orbell, 2000).

It is expected that the more positive the attitude towards condoms (sex-related attitude), the response-efficacy (health-related attitude and coping appraisal), and the subjective norm, and the greater the perceived behavioral control and the self-efficacy (coping appraisal) concerning using condoms, the stronger the individual`s intention to use condoms

while having sexual intercourse (Ajzen, 1991; Rogers, 1975). The TPB thus illustrates the intentional pathway to behavior in the contemporary research.

Figure 1 Schematic representation of the Theory of Planned Behavior and the supporting constructs Self-Efficacy and Response-Efficacy



1.2.2 Prototype Willingness Model

The second psychological theory used in this study is the Prototype Willingness Model established by Gibbons and Gerrard (1995). The aim of this model is describing and explaining a certain (health-related) behavior, like the Theory of Planned Behavior. But in contrast to the TPB, the PWM explains non-intentional pathway to behavior. Due to the fact that this bachelor thesis aims to describe the sexual behavior of the population in the Dominican Republic, the description of the PWM is linked to the topic condom use.

The Prototype Willingness Model is based on three assumptions, which reflect its emphasis on social reactivity rather than rational planning (as e.g. the TPB or the PMT). First it is assumed that behavior, although it results from a conscious choice, is often neither

rational nor intentional. The second assumption implies that health-risk behaviors often occur in social settings, thus the individuals seldom engage in these behaviors alone. Third, because of their social nature, these behaviors have clear social images associated with them that are widely recognized (Gibbons, Gerrard, Blanton, & Russell, 1998).

These assumptions are implemented in the PWM by means of two variables, namely prototype image; or prototype favorability, and behavioral willingness (Gerrard, Gibbons, Stock, van de Lune, & Cleveland, 2005). A 'prototype' is the social image that an individual associates with a certain behavior and can refer to either a healthy or non-risk image (that is the type of person whose behavioral performance promotes or protects health) or a risk image (that is the type of person whose behavioral performance undermines health). Thus, in this bachelor thesis the prototype favorability concerns the perception of the type of person who uses a condom and the perception of the type of person who does not use a condom while having sexual intercourse. According to PWM, this prototype favorability influences the behavioral willingness; defined as the acknowledgement that an individual would be willing to engage in the respective behavior under some circumstances (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008). Unlike the deliberative behavioral intention, behavioral willingness does not involve planning or consideration of behavioral consequences. People who are 'willing' to engage in a risky behavior respond to risk-conducive circumstances. As a result, they are less likely to acknowledge that they will experience the negative outcomes of a risky behavior. Thus, behavioral willingness emphasizes social as well as situational influences and reflects the emotional and intuitive reaction on behavior (Gibbons et al., 1998). In this research, both the willingness to have safe sex and the willingness to have unsafe sex are assessed to measure the explanatory value separately regarding consistent condom use.

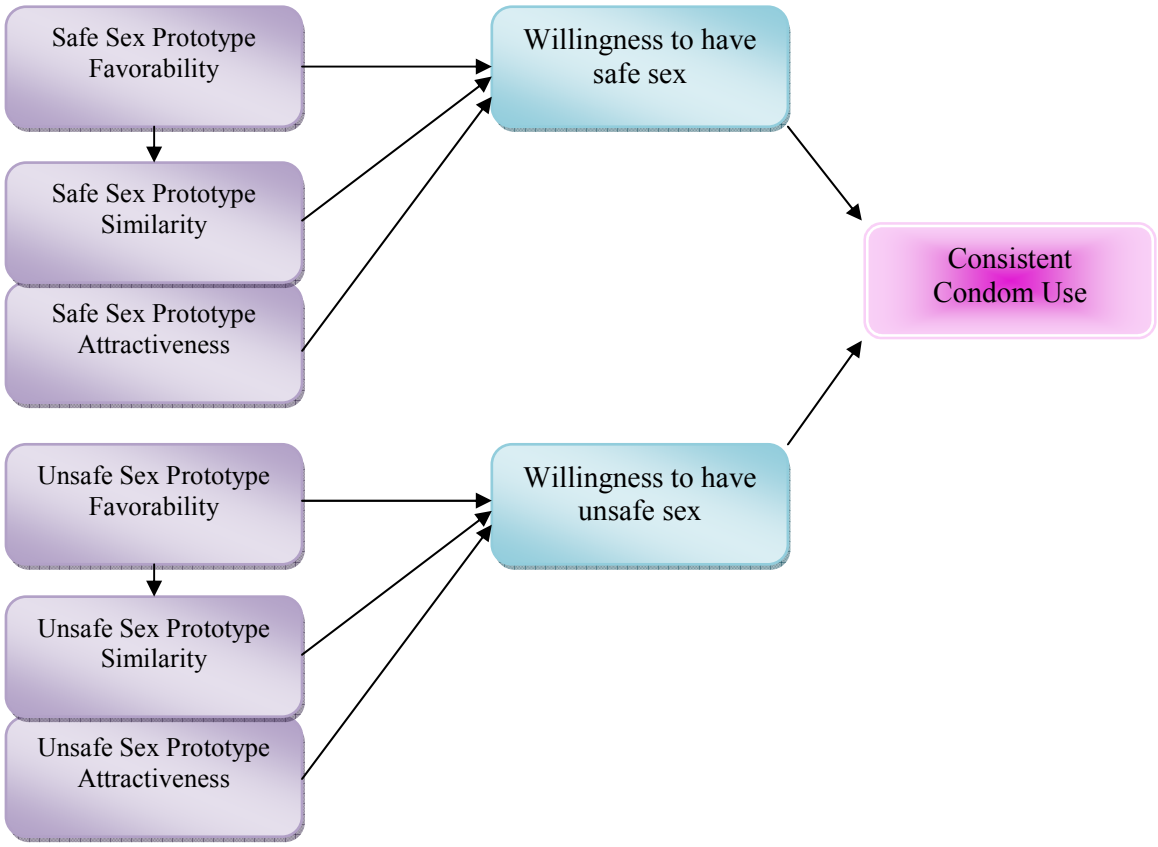
Two aspects of prototype perception are further associated with health related decisions: the similarity of the image to oneself (prototype similarity) and the degree of liking one has for the image (prototype attractiveness). Specifically, the greater the perceived similarity to the prototype and the more positive the evaluations of the prototype, the greater will be the inclination to engage in the healthy behavior described in the prototype.

There are several studies concerning the PWM whose results provide evidence of the predictive validity of the healthy-behavior prototypes and/or risky-behavior prototypes upon health decisions, for instance exercise behavior (Rivis & Sheeran, 2003), unsafe sunbathe-behavior (Gibbons, Gerrard, Lane, Mahler, & Kulik, 2005), smoking cigarettes and drinking alcohol (Blanton, Gibbons, Gerrard, Conger, & Smith, 1997). Regarding sexual behavior, Blanton et al. (2001) investigated the relative impact of condom user and condom non-user

images upon young people's willingness to engage in unprotected sex. They found out that the favorability concerning the negative (unsafe sex) prototype would better explain people's inclination to engage in unsafe sex than the safe sex prototype favorability would. In support of this hypothesis, they found that willingness to engage in unsafe sex was predicted by evaluations of the negative prototype, but was not predicted by evaluations of the positive prototype. The more unfavorable young people's evaluations of the type of person who does not use condoms were, the less willing they were to engage in unsafe sex. Blanton et al. (2001) reasoned that the social and personal consequences of engaging in unprotected sex could have damaging effects on one's self-image, whereas engaging in safe sex would do little in terms of self-enhancement. The implication of these findings is that people are motivated more by a desire to avoid association with risky-behavior images than by a desire to gain association with healthy-behavior images (Blanton, van den Eijnden, Buunk, Gibbons, Gerrard, & Bakker, 2001).

However, it still remains unclear if the healthy prototype or the risky prototype exerts more influence on the actual behavior (Gerrard, Gibbons, Reis-Bergan, Trudeau, van de Lune, & Buunk, 2002; Ouellette, Hessling, Gibbons, Reis-Bergan, & Gerrard, 2005). Therefore, in this research both types of prototype favorability are assessed; the image of a person who engages in safe sexual behavior, and the image of a person who engages in unsafe sexual behavior. As aforementioned, besides the willingness to have protected sex and the willingness to have unprotected sex are measured, to investigate separately the explanatory value of both constructs on the consistent condom use of the Dominican population. The PWM illustrates in this research the social reaction pathway to behavior, thus the non-intentional pathway.

Figure 2 Schematic representation of the Prototype Willingness Model



1.3 Psychosocial contextual factors with impact on sexual behavior of the population in the Dominican Republic

Besides the aforementioned psychological theories, which explain the degree of consistent condom use in terms of social cognitions, several psychosocial and contextual factors are analyzed within this research to gain deeper insight into variables that underlie the sexual behavior of the Dominican population. In this bachelor thesis, psychosocial determinants are defined as a group of social factors (including cultural influences) and inner states which are expected to have an impact on the behavior of an individual (for systematic review: Sheeran, Orbell, & Abraham, 1999).

Firstly, the stigmatization of people with HIV/AIDS is assessed as psychosocial variable in this bachelor thesis. Discussion of stigma often starts with Goffman's (1963) definition of an attribute that is "significantly discrediting". Herek (1998) defines AIDS stigma as "prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS or HIV, and the individuals, groups and communities with which

they are associated". In an exploratory study, Liu et al. (2005) confirmed the hypotheses that an individual's stigmatizing beliefs are related to his or her own sexual risk and protective behaviors and in turn are negatively associated with preventive practices (Liu, Li, Stanton, Fang, Mao, Chen, & Yang, 2005).

Secondly, the risky sexual behavior history of the Dominican population is assumed to be an underlying variable concerning the actual sexual behavior. Several studies pointed out that having engaged in health-related behavior in the past is associated with a greater behavioral intention (Bagozzi, 1981) and behavioral willingness (Gerrard, Gibbons, Blanton, & Russell, 1998) to engage again. Both last-mentioned variables, thus stigmatization and previous risky sexual behavior, are further explained below.

Thirdly, a brief knowledge measure is carried out to assess if the participants have the knowledge in order to engage in protective behavior, this is a cognitive factor influencing the consistent condom use (Boer & Mashamba, 2005).

Moreover gender and age are (demographic) factors which are controlled in this bachelor thesis. Gupta (2002) states that especially in the Caribbean gender plays a significant role in the transmission of HIV. Gender norms that create an unequal balance of power between women and men are deeply rooted in the socio-cultural context of a society (Wingood & DiClemente, 2000). In the Caribbean the societal ideals for femininity and female sexuality (culture of marianismo) and masculinity and male sexuality (dominant culture of machismo) greatly affect women's and men's sexual behavior. In this view, women are expected to be ignorant about sex and passive in sexual interactions, to some extent even traditional norms of virginity for unmarried girls apply (though not always adhered). As a result women and girls are not informed about risk reduction and negotiating safer sex. In turn, this imbalance in power between men and women constrains women's sexual autonomy and expands men's sexual freedom thereby increasing their risk and vulnerability to HIV infection. Gender norms also determine what women are supposed to know about sex, and hence limit especially young women's ability to accurately determine their level of risk and to acquire accurate information and means to protect themselves from HIV (Gupta, 2002; van der Kwaak, Wegelin-Schuringa, & Dasgupta, 2006). Therefore (as well regarding the UNAIDS statistics, 2008), it is expected that women have fewer sexual partners but show less consistent condom use than males.

1.3.1 HIV/AIDS related Stigmatization

Stigmatization is a cultural variable which can influence sexual behavior. Stigma has been associated with diseases that are incurable and severe, and with routes of disease transmission that are associated with individual behaviors (Crandall & Moriarty, 2005). For this reason, stigma can have significant disruptive effects on health and disease transmission by delay in seeking care, and in failing to disclose one's condition due to fear of isolation or rejection, and by fear of following medical advice. This means that stigmatization is particularly relevant to prevention and treatment in the global HIV/AIDS pandemic, because stigma surrounding HIV and AIDS has been shown to act as barrier to HIV prevention, treatment, and care (Kalichman & Simbayi, 2004; Lieber, Li, Wu, Rotheram-Borus, & Guan, 2006).

Recent researches identified different dimensions of stigmatization. Kalichman and Simbayi (2003) assessed HIV/AIDS stigma through a thirteen item scale. Each item describes emotional based reactions on different dimensions with a high impact on the behavior of an individual. The first is a repulsion and blame dimension, this includes beliefs about negative qualities of people living with HIV/AIDS (e.g., dirty, untrustworthy). The second dimension concerns the shamefulness of the behavior of people with HIV/AIDS (e.g., guilt, shame). Coercion and avoidance are characteristics of the third dimension (e.g., being friends with HIV infected person). The fourth identified dimension denotes the social sanctions against people living with HIV/AIDS (e.g., restrictions on freedom). Although the final AIDS-Related Stigma Scale from Kalichman and Simbayi (2003) taps a broad range of stigmatizing beliefs, the researchers only calculated a summary score to assess the degree of stigmatization. In the contemporary research, the different dimensions will be analyzed apart. Therefore five items based on a scale developed by Visser et al. (2008) in an African context are added to the original items to get a valid measurement instrument (Visser, Kershaw, Makin, & Forsyth, 2008). The theoretical framework in this research, thus the classification in dimensions, is similar to that of Kalichman and Simbayi (2003). According to Visser et al. (2008) the term 'personal stigma' refers to the personal beliefs and feelings that individuals hold towards someone with HIV. The concept 'attributed stigma' ascribes to the attitudes that individuals attribute to others within a group; it describes a generalized perception of how people feel and respond towards those with HIV/AIDS.

According to a research by Boer and Emons (2004), people with a high degree of stigmatizing beliefs felt less vulnerable to HIV infection and reported a lower intention to use condoms. Although this seems to be a paradoxical reaction in relation to the self-protective function of stigmatizing, this finding is in accordance with the concept that stigmatizing leads

to the distancing of the self from the risk of HIV infection (Boer & Emons, 2004; Burkholder, Harlow, & Washkwich, 1999). This implies that people view themselves differently from the perceived "HIV/AIDS risk-group". Stigmatizing of people with AIDS and HIV risk groups leads to stereotyping of the risk behavior that is related to HIV infection. If their personal behavior is not seen as similar with the stereotyped HIV risk behavior, people will see themselves at less risk of HIV infection. Accordingly, the associated stereotyping of HIV risk behavior actually undermines HIV protective behavior and is therefore related to greater behavioral risk for HIV/AIDS (Burkholder et al., 1999).

In summary it is expected in accordance with the obtained results, that stigmatization forms a part of the HIV/AIDS problem in the Dominican Republic. Furthermore it is anticipated that stigmatization is negatively linked to intention and willingness to use condoms, and the actual condom use.

1.3.2 Risky sexual behavior history

As highlighted earlier, having engaged in a certain health-related behavior in the past is associated with a greater behavioral intention and behavioral willingness to engage in this behavior again (Bagozzi, 1981; Gerrard, Gibbons, Blanton, & Russell, 1998). Therefore it is anticipated that a risky sexual behavior history (as opposed to a healthy sexual behavior history) is related to the protection behavior within the Dominican population. This notion is supported through a study by Stulhofer et al. (2010), which attempts to increase the understanding of the mechanism underlying consistent condom use by means of the association between condom use at first and most recent sexual intercourse. It was pointed out that previous behavior can influence habit formation, which in turn influences the consistency of condom use (Stulhofer, Bacak, Ajdukovic, & Graham, 2010).

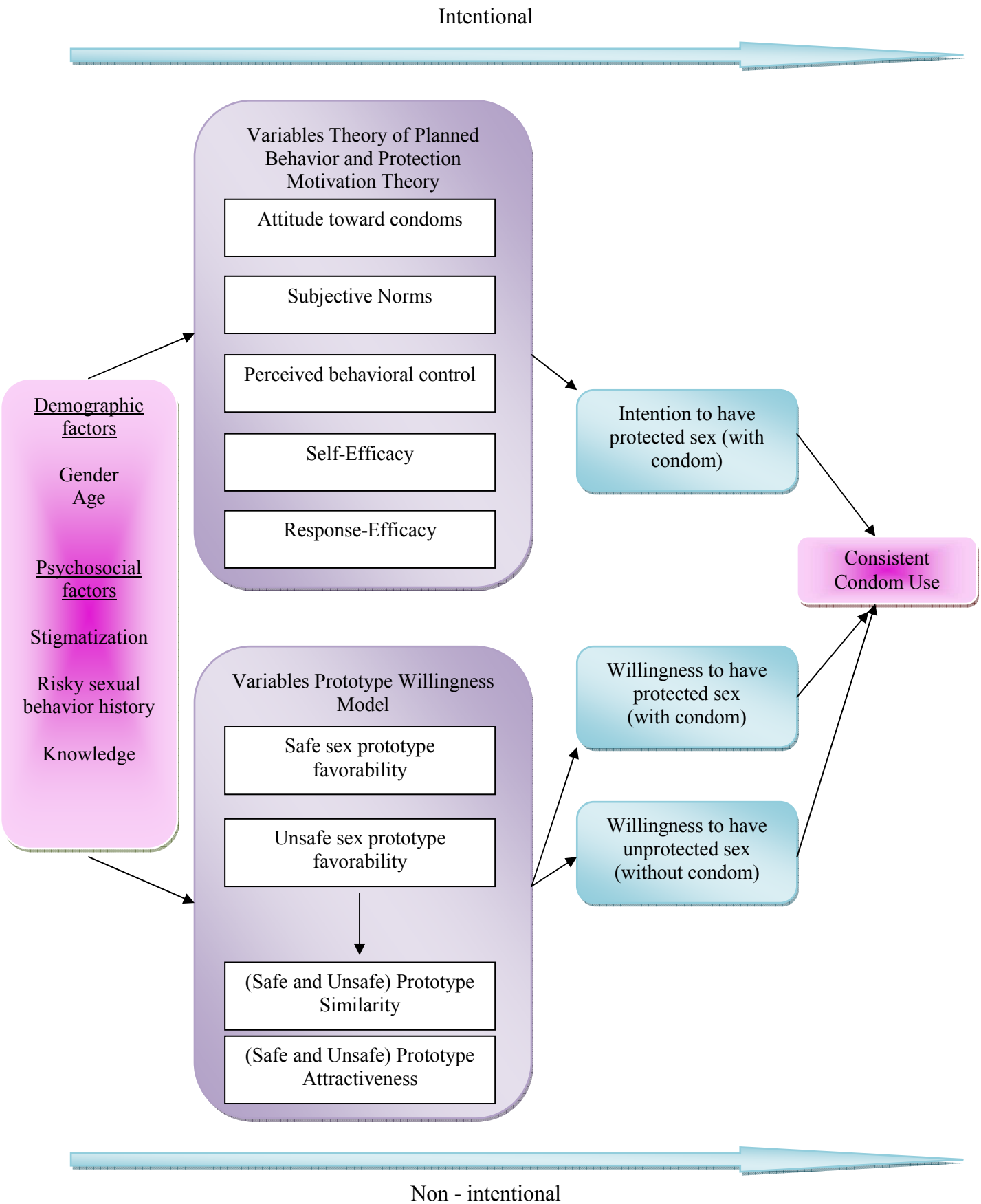
According to Pinkerton et al. (2002) consistent condom use is an important variable in reducing the risk of a transmission of sexually transmitted diseases like HIV/AIDS, especially in terms of multiple sex partners (Pinkerton, Chesson, & Layde, 2002). Thus, multiple sex partners can be seen as risky sexual behavior only in combination with inconsistent condom use, because it increases the chance of getting infected with sexually transmitted diseases.

Furthermore, several studies identified other risk behavior indicators that contribute to an unhealthy sexual behavior history (Kalichman & Simbayi, 2003, Liu, Li, Stanton, Fang, Mao, Chen, & Yang, 2005). The non-use of protection during the last sexual intercourse is according to the aforementioned theoretical background a potential sign if somebody did and will exert unhealthy sexual behavior, moreover being diagnosed with a sexually transmitted

infection is an indicator of risky sexual behavior. The practice of transactional sex, both passive and active (defined as sex exchanged for money or other survival needs), describes another risk factor (Norris, Kitali & Worby, 2009). Another indicator of an unhealthy sexual behavior history is the injection of drugs or having an injection drug using sexual partner (Copenhaver, Johnson, Lee, Harman, & Carey, 2006).

Concerning the relation between stigmatization and a risky sexual behavior history, Liu et al. (2005) found out that stigmatizing beliefs towards people living with HIV/AIDS are positively associated with the previous risky behavior of an individual. Likewise having had an episode of sexually transmitted diseases, multiple as well as commercial sexual partners are expected to increase stigmatization beliefs. This research further supported the notion of Boer & Emons (2004) and Burkholder et al. (1999) that HIV related stigma are negatively associated with HIV preventive processes, like using condoms consistently.

1.4 Schematic representation of the contemporary research



1.5 Research questions

1. Does the population in the Dominican Republic display risky sexual behavior, like multiple sex partners and inconsistent condom use?
2. Do the Dominican participants previous displayed risky sexual behavior?
3. Do the Dominican participants have considerable knowledge about HIV/AIDS?
4. Does stigmatization exist in the Dominican Republic?
5. Do the variables of the TPB predict the intention to use condoms?
6. Do the variables of the PWM predict the willingness to use condoms?
7. Is the intention to use a condom directly related to actual condom use in the Dominican Republic?
8. Is the willingness to use a condom directly related to actual condom use in the Dominican Republic?
9. Is stigmatization linked to the intention, the willingness and the consistency of condom use?

2. Method

2.1 Respondents and Procedure

The data of this cross-sectional research was collected between March 6th and May 10th 2009 in the Dominican Republic. The inclusion criterion of this research was being aged between 15 and 30 years and being native Dominican. The respondents were contacted on different places known as famous meeting places for the population, in particular at the beaches and surrounding streets in Cabarete, Sosua, Puerto Plata and Samana. At these coast villages not only residents filled in the questionnaires, but also people from the inland, as they spent their leisure time at weekends there. Moreover several students from a language school in Cabarete participated in the research. Some respondents furthermore are recruited in the city of Santo Domingo, La Vega and Santiago. Considering the recruitment at different places, it was attempted to achieve a representative, heterogeneous sample of the whole Dominican population in the age group 15-30 years.

Potential respondents were personally approached and asked if they were interested in filling in the questionnaire. If so, age and nationality was asked to meet the research criterion. Furthermore the potential participants were informed about the background, purpose and topic of the study, thus (risky) sexual behavior and stigmatization. Here it was especially emphasized that the anonymity of their answers is provided. The way the questionnaire had to be filled in was explained, that it should be filled in completely and the required time. Actual participants of the research got a pen and questionnaire to answer the questions immediately. The investigator stayed around to assure anonymity but also to answer possible questions. The time to fill in the whole questionnaire was estimated at approximately 15 minutes. After that time the questionnaires were recollected from the participants by putting all the questionnaires randomly into a bag. This procedure again maintained anonymity.

2.2 Measurement instrument: the questionnaire

Before leaving to the Dominican Republic a multi-item questionnaire was developed, that measures the sexual behavior of the Dominican population effectively. To work with a valid measurement in terms of cultural context, the questionnaire was proofread by three native Dominican people and one supervisor of a local language school, who estimated the questionnaire as good understandable and clearly formulated. In total 90 completed questionnaires were analyzed.

Demographic information. First the demographic information of the respondents was asked within the questionnaire. Those included gender, age, nationality, time living in the Dominican Republic (to assure being native born Dominican), education until now, marital status and the kind of work.

Sexual Behavior and Condom Use. The sexual behavior concerning the number of sexual partners in the previous three months and the condom use in the previous three months was measured by the use of a new developed scale. The participants should firstly indicate the number of sex-partners, subsequently they should indicate with how many of these partners they always used a condom. By means of measuring the two variables in this way it was possible to compute a score comprising the percentage of condom use in the previous three months per respondent.

Theory of Planned Behavior and Protection Motivation Theory variables. The different constructs of the TPB and the PMT were assessed with a five-point-Likert scale (-2=completely disagree to 2= completely agree). Subsequently the items and the reliability of the different subscales are described. Mean scores were computed for each scale by dividing the total score by the number of items.

Attitude towards condoms. The Attitude scale was composed of eleven statements which are all recoded; so as to assure that a high value represented a more favorable attitude (1. Having sexual relations using condoms is less romantic. 2. Having sexual relations using condoms is less pleasurable. 3. Using condoms is an annoying interruption. 4. Using condoms will reduce my partner's sexual pleasure. 5. Using condoms will reduce my sexual pleasure. 6. Using condoms makes sex difficult. 7. Using condoms makes sex embarrassing. 8. Using condoms will give my partner the impression that I sleep around. 9. If I propose that we use a condom my boyfriend/girlfriend will get the impression that I do not trust him/her. 10. Using condoms evoke resistance by my boyfriend/girlfriend. 11. I think condoms are expensive.). This construct disclosed an alpha of 0.82, thus the reliability was sufficiently high.

Subjective Norm. The variable Subjective Norm was computed by multiplying each normative belief item with its related motivation to comply item. The Cronbach's alpha is 0.54, thus the reliability of the scale didn't prove satisfactory. Through removing one item (My partner thinks that I should use condoms. & I care about the opinion of my partner.), there is an increment of alpha to 0.67. The final scale consisted of four items (1. My friends think that I should use condoms. & I care about the opinion of my friends. 2. My doctor recommends using condoms. & I care about the opinion of my doctor. 3. My mother thinks that I should use condoms. & I care about the opinion of my mother. 4. My father thinks that I

should use condoms. & I care about the opinion of my father.).

Perceived Behavioral Control. To assess the construct Perceived Behavioral Control of the Dominican population, two items were measured which displayed a moderate internal consistency with a Cronbach's alpha of 0.67 (1. Using or not using condoms totally depends on me. 2. I have a lot of personal control concerning the use of condoms.).

Self-Efficacy. Ten items assessed condom-related Self-Efficacy, whereas a high value represents a high level of self-efficacy (1. It is difficult for me to talk about condoms (recoded). 2. It is difficult for me interrupting sex to put a condom on (recoded). 3. I think it is difficult to use condoms (recoded). 4. I am able to talk about safe sex with my boyfriend/girlfriend. 5. I am able to ask my boyfriend/girlfriend about his/her sexual history. 6. I am able to talk about safe sex with my mother. 7. I am able to talk about safe sex with my father. 8. I am able to ask my mother about how to use a condom. 9. I am able to ask my father about how to use a condom. 10. It is difficult to plan the use of condoms in advance (recoded).). This scale disposed a sufficient internal consistency with an alpha of 0.78.

Response-Efficacy / Health-related Attitude. The Response-Efficacy was measured by means of three items (1. Using condoms protects me from being infected with HIV. 2. Using condoms protects me against other STD's (sexually transmitted diseases). 3. Using condoms protects me from becoming pregnant.). The scale displayed a sufficient reliability (Cronbach's $\alpha = 0.77$).

Condom Use Intention. The construct Condom Use Intention was assessed through five items, with one item recoded such that higher scores represented a high intention to use condoms. (1. In the future I will always use a condom. 2. In the future I will not have sex if it is not possible to use a condom. 3. In the future I will demand the use of a condom, even if my partner does not want to use it. 4. If my partner does not want to use a condom, I adapt to his/her wish (recoded). 5. If my partner does not want to use a condom, I try to convince him/her to use a condom.). The Cronbach's alpha of this scale is 0.82, so the internal consistency proved to be good.

Prototype Willingness Model variables. The variables of the Prototype Willingness Model were adapted from a scale developed by Gibbons & Gerrard (1995). The constructs were each measured on a 7-point-Likert scale (-3= not at all to 3= completely). The prototype favorability constructs of the Prototype Willingness Model were both (safe sex image and unsafe sex image) assessed with twenty items (1. clever, intelligent 2. messy (recoded) 3. popular 4. immature (recoded) 5. cool 6. self-confident 7. independent 8. careless (recoded) 9. attractive 10. boring (recoded) 11. careful 12. egoistic (recoded) 13. reasonable 14. properly

clothed 15. friendly 16. young 17. stupid (recoded) 18. timid, afraid (recoded) 19. thoughtful 20. indifferent (recoded)). Eight adjectives of this scale were recoded, so as to assure that a high value indicated a positive attribute. The variables Prototype Similarity and Prototype attractiveness were identified for each prototype image apart, thus of a person who has sex with condom and a person who has sex without protection.

Safe Sex Prototype Favorability. This variable was measured by means of the statement: "Indicate to what extent you think the attributes mentioned below fit somebody at your age that has safe sex (with condom). A person in my age who has sex with protection is…" The score of this healthy image was computed through summarizing the values attributed to the twenty items and dividing the total score by the number of items. The Safe Sex Prototype scale had a Cronbach's alpha of 0.87, this meant a high reliability.

Safe Sex Prototype Similarity. This variable was assessed with one question (To what extent do you think you resemble this type of person?).

Safe Sex Prototype Attractiveness. This variable was either measured with one question (Can you indicate to what extent you think this type of person is attractive?).

Unsafe Sex Prototype Favorability. The variable was measured by means of the statement: "Indicate to what extent you think the attributes mentioned below fit somebody at your age that has unsafe sex (without condom). A person in my age who has sex without protection is…" The score of this risky/unhealthy image was computed through summarizing the twenty adjectives and dividing the total score by the number of items. The reliability of the Unsafe Sex Prototype scale provided a Cronbach's alpha of 0.82 and thus had internal consistency.

Unsafe Sex Prototype Similarity. This variable was measured with one question (To what extent do you think you resemble this type of person?).

Unsafe Sex Prototype Attractiveness. To assess this variable one question was asked (Can you indicate to what extent you think this type of person is attractive?).

Behavioral Willingness. The willingness to display safe or unsafe sexual behavior was measured by describing the following situation: "Imagine you have a date with a boy or girl in your age and this person wants to have sex with you, but you both don't have a condom with you." Then two separate single item constructs were posed to assess the willingness to have protected sex: "How likely is it in this situation that you don't have sex?" and to measure the willingness to have unprotected sex: "How likely is it in this situation that you have sex without condom anyway?"

Stigmatization. To identify the level of stigmatization within the Dominican respondents, eighteen statements based on four different dimensions had to be evaluated. Thirteen statements were adapted from Kalichman et al. (2003) and five additional items from Visser et al. (2008). The items were assessed with a 5-point-Likert scale (-2=completely disagree to 2=completely agree), to rate people scoring high or low on stigmatization. Mean scores were computed for the whole scale and each subscale by dividing the total score by the number of items.

Repulsion and blame dimension. Five items reflected the repulsion and blame dimension that includes beliefs about negative qualities of people living with AIDS. Four of those were adopted from Kalichman et al. (1. People who have AIDS are dirty. 2. People who have AIDS are cursed. 3. People who have AIDS cannot be trusted. 4. People who have AIDS are like everybody else (recoded).) and one from Visser et al. (18. Most of all people infected with HIV are self responsible for their sickness.). The scale had a good reliability with a Cronbach's alpha of 0.81.

Shamefulness of the behavior dimension. Five items mirrored the shamefulness concerning the disease of people with HIV/AIDS. Three of these items were adopted from Kalichman et al. (5. People who have AIDS should be ashamed. 6. People who have AIDS have nothing to feel guilty about (recoded). 7. Most people become HIV positive by being weak or foolish.). Also, two were supplementary (16. People with HIV should be ashamed of themselves. 17. The majority of the people infected with HIV/AIDS are stupid and foolish.). The scale had a good internal consistency with a Cronbach's alpha of 0.87.

Avoidance and coercion dimension. Another four items assessed the coercion and avoidance dimension with a good reliability of 0.89. Two of these items were adopted from Kalichman et al. (10. A person with AIDS must have done something wrong and deserves to be punished. 12. I do not want to be friends with someone who has AIDS.) and two are adapted from Visser et al. (14. I would not accept a person with HIV/AIDS within my family. 15. I do not want to be in the same circle of friends as a person with HIV/AIDS.).

Social sanction dimension. Four items (all developed by Kalichman and Simbayi) measured the social sanction dimension of stigma against people living with HIV/AIDS with a moderate (alpha = 0.77) internal consistency (8. It is safe for people who have AIDS to work with children (recoded). 9. People who have AIDS must expect some restrictions on their freedom. 11. People who have AIDS should be isolated. 13. People who have AIDS should not be allowed to work.).

General Stigmatization. The general stigmatization scale appeared to dispose a Cronbach`s alpha of 0.90, thus the reliability of the whole scale was very high. The fact that none of the items adapted by Visser et al. (2008) had to be deleted to increase the internal consistency of the subscales justified the selection of these complementary items.

Risky sexual behavior history. The responses on this scale adopted by Liu et al. (2005) and Kalichman & Simbayi (2003) were dichotomous indicating the occurrence or non-occurrence of each risk factor (no=0 and yes=1). A high value on this scale indicated a high level of risky behavior (1. Did you use a condom the last time you had sex (recoded)? 2. Did you ever pay money or other survival needs for sex? 3. Did you ever receive money or other survival needs for sex? 4. Did you ever inject drugs? 5. Did you ever have an injection drug using sex partner? 6. Did you ever have an episode of a sexually transmitted disease?). This scale disposed a sufficient reliability with a Cronbach's alpha of 0.78.

HIV/AIDS Knowledge. The HIV/AIDS knowledge scale was adopted from an African research (Boer & Mashamba, 2005). To assess knowledge about HIV/AIDS, four questions were asked about knowledge that participants needed to have in order to engage in protective behavior. Each question could be answered with "yes" or "no" (1. AIDS is caused by the HIV virus. 2. Someone who is infected with HIV will get AIDS within three months. 3. Someone who looks healthy can already be infected with HIV. 4. Someone who is infected with HIV, but does not yet have full–blown AIDS, can transfer the HIV virus through sexual contact.). The knowledge scale displayed in the contemporary context a Cronbach's alpha of 0.57.

2.3 Data analysis

All statistical analyses are performed using the statistical software program SPSS 16.0. Differences between groups are tested using the chi-square test or independent samples t-tests. Relations between variables are analyzed with Pearson correlation coefficients. To explain the intention and the willingness to use condoms and actual condom use, multiple hierarchical regression analyses are used. In all cases statistical significance is reached when $p > .05$ (two-tailed).

3. Results

3.1. Sample characteristics

Table 1 presents the demographic characteristics of the total research population, separated for men and women, by means of frequencies and percentages.

Table 1 Demographic information of the Dominican respondents separated on basis of gender, depicted in frequencies (*n*) and percent (%) in brackets

	Male	(*n*=52)	Female	(*n*=38)	Total	(*n*=90)
Age						
*M*ean (*SD*)	23.75	(4.14)	23.89	(3.21)	23.81	(3.77)
Minimum	16		18		16	
Maximum	31		31		31	
Education						
Primary	-		3	(7.9%)	3	(3.3%)
Secondary	39	(75%)	30	(78.9%)	69	(76.7%)
University	13	(25 %)	5	(13.2%)	18	(20%)
Work						
yes	37	(71.2%)	27	(71.1%)	64	(71.1%)
no	15	(28.8%)	11	(28.9%)	26	(28.9%)
Marital status						
Single	25	(48.1%)	18	(47.4%)	43	(47.8%)
Boyfriend/Girlfriend	19	(36.5%)	7	(18.4%)	26	(28.9%)
Married	6	(11.5%)	13	(34.2%)	19	(21.1%)
Divorced	2	(3.8%)	-		2	(2.2%)

In total 90 participants who meet the research criterion filled in the questionnaire, whereof 57.8% were male and 42.2% female. The age of all respondents is ranging from 16 to 31 years with an average age of 24 years. There is no significant difference found between the mean age of males (23.89 years) and the mean age of females (23.75 years; $t(88) = .18$, *ns*). Concerning the educational status, most Dominican respondents completed at least secondary school (77%), with a high proportion of university (20%). A significant difference is detected here between males and females (males being higher educated than females ($t(88) = 2.07$, $p = .04$). Another important characteristic to note is the marital status, nearly half of all participants declare being single, while the other half live in a steady relationship or marriage.

With regard to the marital status, there is a significant difference found between genders. Females are more often already married than only having a boyfriend, while males more often only have a girlfriend and did not marry until now ($\chi 2$ (df = 3) = 9.30, p = .03).

3.2 Sexual behavior

The following two tables display the factual sexual behavior of the Dominican participants, assessed by means of the number of partners in the previous three months and the frequency of protection with these partners.

3.2.1 Number of partners

The number of sexual partners of the Dominican respondents in the previous three months can be seen in table 2.

Table 2 Number of sexual partners of Dominican respondents in the previous three months separated on the basis of gender, depicted in frequencies (n) and percent (%) in brackets

Number of partners	Male (n=52)	Female (n=38)	Total (n=90)
1	20 (38.5%)	16 (42.1%)	36 (40%)
2	9 (17.3%)	6 (15.8%)	15 (16.7%)
3	9 (17.3%)	9 (23.7%)	18 (20%)
4	3 (5.8%)	4 (10.5%)	7 (7.8%)
5	7 (13.5%)	-	7 (7.8%)
6	1 (1.9%)	-	1 (1.1%)
7	3 (5.8%)	3 (7.9%)	6 (6.7%)
*M*ean (*SD*)	2.67 (1.83)	2.42 (1.72)	2.57 (1.78)

It is clear that the Dominican participants generally had sexual intercourse in the previous three months; all participants had at least one partner. Furthermore it becomes apparent that sexual intercourse with multiple partners took place, 60% of all participants had more than one sexual partner in the previous three months with only a slight difference between genders. In the categories of persons with five or more sex-partners, the males (12.1%) are apparently represented more frequently than females (3.3%), but this is only marginally significant (t>5(88) = -1.72, p = .09). The mean number of partners is similar for females and males; this difference is statistically not significant (t(88) = .66, *ns*). The lack of difference between men

and women is notable, because it was expected that men would have more sexual partners than women in the previous three months.

3.2.2 Condom Use Behavior

The protective behavior of the Dominican participants is displayed in table 3. The column 'percentage condom use' presents in twenty-percent intervals in how many percent of their sexual encounters the respondents used condoms.

Table 3 Percentage of Condom Use Behavior of respondents in previous three months separated on the basis of gender, depicted in percent (%) and frequencies (*n*) per group

Percentage condom use	Male (*n*= 52)		Female (*n*= 38)		Total (*n*= 90)	
100%	32.7%	17	57.9%*	22	43.3%	39
80% - 99%	-	-	-	-	-	-
60% - 79%	19.2%	10	7.9%	3	14.4%	13
40% - 59%	21.2%	11	5.3%	2	14.4%	13
20% - 39%	15.4%	8	26.3%	10	20%	18
1% - 19%	-	-	2.6%	1	1.1%	1
0%	11.5%	6	-	-	6.7%	6
*M*ean (*SD*) frequency protection	60.18% (34.46)		75.28%* (31.57)		66.56% (33.93)	

Note. * $p < .05$; describing significant difference between men and women.

These descriptive statistics highlight that the Dominican respondents had unsafe sexual intercourse in the previous three months, thus without protection. The average number of sexual encounters where a condom was used significantly differs for males (60%) and females (75%; $F(88) = 4.52$, $p = .04$). This means on average, that the Dominican men did not use a condom while having sexual intercourse with nearly one out of three partners, while the women did not protect themselves with one out of four partners. It is notable that there are no women who did not use condoms at all, while 12% of the men never used a condom. Furthermore there are significantly more women (58%) than men (33%) who used protection in every sexual encounter in the ascertained period ($t(88) = 2.44$, $p = .02$). Thus, using the chi-square test, there are significant differences found between genders ($\chi 2$ ($df = 12$) = 29.0, $p = .004$).

3.3 Social cognitions

3.3.1 Theory of Planned Behavior: Descriptive statistics

In table 4 the mean scores and standard deviations for the different constructs of the Theory of Planned Behavior are presented.

Table 4 Descriptive statistics of TPB variables, means (*M*) and standard deviations (*SD*) in brackets, separated on basis of gender

*M*ean (*SD*)	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)
Intention to use condoms	.38 (.96)	.72 (1.15)	.52 (1.05)
Attitude towards condoms	.46 (.76)	.90** (.75)	.65 (.78)
Subjective norm	.94 (.65)	.89 (.60)	.92 (.63)
Perceived Behavioral Control	.88 (1.0)	1.11 (.91)	.97 (.96)
Self-Efficacy	.83 (.70)	.94 (.69)	.88 (.69)
Response-Efficacy	1.37 (.69)	1.12 (.76)	1.26 (.73)

Note: Scales range between -2 (lowest score) and 2 (highest score).
*$p < .05$ **$p < .01$ ***$p < .001$; describing significant difference between men and women.

Although the score is not high and the standard deviation quite large, the positive mean score of the variable 'Intention to use condoms' represents a positive intention to use condoms. Idem applies for the mean scores of the remaining constructs, the positive value of the scores displays an overall favorable attitude and a positive subjective norm. Moreover the values of the perceived behavioral control and the efficacy constructs imply that the Dominican respondents feel able to successfully perform the protective behavior.

Although the average scores of males are apparently lower than those of females concerning the intention to use condoms, no significant differences are found ($t(88) = -1.55$, *ns*), probably due to the high standard deviation. Moreover it is notable that the female respondents have a significantly more favorable attitude towards condoms ($t(88) = 2.75$, $p < .01$). With regard to the other constructs, there are no gender differences detectable concerning the subjective norm ($t(88) = -.38$, *ns*), perceived behavioral control ($t(88) = 1.12$, *ns*), self-efficacy ($t(88) = .74$, *ns*) and response-efficacy ($t(88) = -1.58$, *ns*).

3.3.2 Prototype Willingness Model: Descriptive statistics

Table 5 displays the means and standard deviations for the different PWM variables separated on the basis of safe sex variables (with protection) and unsafe sex variables (without protection) for males and females.

Table 5 Descriptive statistics of PWM variables, means (*M*) and standard deviations (*SD*) in brackets, first separated concerning prototype and second separated on basis of gender

	Safe Sex Constructs *M*ean (*SD*)			**Unsafe Sex Constructs** *M*ean (*SD*)		
	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)
Behavioral Willingness	.42 (2.40)	1.16 (2.12)	.73 (2.31)	-1.46 (1.97)	-1.66 (1.63)	-1.54 (1.83)
Prototype Favorability	1.06 (.98)	1.2 (.61)	1.12 (.84)	-.78 (1.08)	-.44 (.85)	-.63 (1.0)
Prototype Similarity	.94 (2.20)	1.71 (1.74)	1.27 (2.04)	-1.83 (1.91)	-1.58 (1.35)	-1.72 (1.69)
Prototype Attractiveness	.87 (1.96)	1.34 (1.48)	1.07 (1.78)	-1.69 (1.87)	-1.68 (1.60)	-1.69 (1.75)

Note. Scales range between -3 (lowest score) and 3 (highest score).

According to these statistics the expectations concerning the safe sex prototype constructs and the unsafe sex prototype constructs are confirmed. All average scores of the safe sex prototype factors are positive values and all mean scores of the unsafe sex prototype constructs are negative values (note, the mean of the scale is zero). Separate t-tests reveal that all safe sex constructs significantly differ from their unsafe sex counterparts (all $p > 0.001$).

The mean score of the willingness of the Dominican participants to have safe sex (.73) is not high, since the midpoint of the scale is zero, while the mean score of the willingness to have unsafe sex (-1.54) is farther away from zero. The standard deviations of these constructs are remarkable high; this means these items are largely spread out. Likewise, there are high standard deviations for the other constructs, like prototype similarity and attractiveness.

Concerning gender differences, there are apparently remarkable differences to detect; especially the willingness to have protected sex seems to be lower in males (.42) than in females (1.16). Moreover male participants rate their own similarity concerning the safe sex prototype obviously lower. Despite these apparent estimates, the safe sex constructs do not differ significantly between male and female, in particular willingness ($t(88) = -1.50$, *ns*),

prototype image/favorability ($t(88) = -.80$, *ns*), prototype similarity ($t(88) = -1.78$, $p = .08$) and prototype attractiveness ($t(88) = -1.26$, *ns*). Idem applies to the unsafe sex constructs (willingness: $t(88) = .50$, *ns*; prototype image/favorability: $t(88) = -1.61$, *ns*; prototype similarity: $t(88) = -.67$, *ns* and prototype attractiveness: $t(88) = -.02$, *ns*).

3.4 Psychosocial contextual factors with impact on risky sexual behavior

3.4.1 Stigmatization

Table 6 displays the descriptive statistics for the whole scale and the subscales concerning the HIV/AIDS stigmatization.

Table 6 Mean scores (*M*) and standard deviations (*SD*) in brackets of the stigmatization scales

*M*ean (*SD*)	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)
Repulsion and blame dimension	-.62 (.90)	-.83 (.98)	-.71 (.94)
Shamefulness of behavior dimension	-.29 (1.00)	-.56 (1.24)	-.41 (1.11)
Avoidance and coercion dimension	-.60 (1.12)	-.82 (1.07)	-.69 (1.10)
Social sanction dimension	-.39 (.90)	-.73 (.94)	-.53 (.93)
Stigmatization general score	-.47 (.86)	-.73 (1.02)	-.58 (.94)

Note: Scales range between -2 (lowest score) and 2 (highest score).

Stigmatization clearly exists in the Dominican respondent group. With regard to the lowest possible value (-3) the averaged stigmatization mean score (-0.58) shows that the Dominican respondents hold a few stigma. In the four different dimensions are apparently gender differences to discern; especially the second dimension (shamefulness of behavior) suspects that male participants more often ascribe guilt and the necessity to be ashamed to infected persons (male = -.29, female = -.56). Furthermore men seem to be more convinced that social sanction toward HIV infected persons may be taken (male = -.39, female = -.73). Anyway, the different subscales are not statistically significant in regard to gender differences, although it seems that Dominican men stigmatize more often than Dominican women (repulsion and blame dimension $t(88) = 1.04$, *ns*; shamefulness of behavior dimension $t(88) = 1.15$, *ns*; avoidance and coercion dimension $t(88) = .92$, *ns* and social sanction dimension $t(88) = 1.74$, $p = .08$). Idem holds for the stigmatization general score ($t(88) = 1.29$, *ns*). Furthermore, there are no significant differences found concerning the four dimensions.

3.4.2 Risky sexual behavior history

Table 7 presents the percentage of indicators of previous risky sexual behavior in the Dominican respondent group.

Table 7 Percentage (%) affirmative answers concerning respondent's sexual risk behavior history

	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)
Did you use a condom the last time you had sex? +	38.5	42.1	40
Did you ever pay money or other survival needs for sex?	25	13.2	20
Did you ever receive money or other survival needs for sex?	26.9	18.4	23.3
Did you ever inject drugs?	5.8	15.8	10
Did you ever have an injection drug using sex partner?	15.4	18.4	16.7
Did you ever have an episode of a STD?	30.8	44.7	36.7
Average percentage of affirmative answers	23.5	27.9	25.3

Note. + Item is recoded.

The Dominican respondents answer remarkably often affirmative on the different factors regarding their previous risky sexual behavior. It is especially worrying that 36.7% of all respondents acknowledge that they already had episodes of sexually transmitted diseases and 40% didn't use a condom the last time they had sexual intercourse. Furthermore, the fact that men are more involved in transactional sex, both active (25% men, 13.2% women) and passive (26.9% men, 18.4% women) is an interesting finding. The rates of drug users or Dominicans with drug using partners are remarkably high; especially women seem to have experiences in this field. Anyway, there are no statistically significant gender differences concerning the separate constructs found (condom use last sex $t(88) = -.35$, *ns*; transactional sex paid $t(88) = 1.39$, *ns*; transactional sex got $t(88) = .94$, *ns*; inject drugs $t(88) = -1.57$, *ns*; drug using partner $t(88) = -.38$, *ns* and episode STD $t(88) = -1.36$, *ns*). The values of males and females do not either differ on the summarized score ($t(88) = -.64$, *ns*).

3.4.3 Knowledge

Table 8 displays the percentage of correct answers to the brief knowledge scale adapted from Boer & Mashamba (2005).

Table 8 Percentage (%) of correct answers to questions about HIV/AIDS knowledge

	Male (*n*=52)	Female (*n*=38)	Total (*n*=90)
1. AIDS is caused by the HIV virus.	82.7	94.7	87.8
2. Someone who is infected with HIV will get AIDS within three months. [+]	38.5	57.9	46.7
3. Someone who looks healthy can already be infected with HIV.	71.2	76.3	73.3
4. Someone who is infected with HIV, but does not yet have full–blown AIDS, can transfer the HIV virus through sexual contact.	67.3	81.6	73.3
Average percentage of correct answers	64.9	77.6*	70.3

Note. [+] Item is recoded.
*$p < .05$ **$p < .01$ ***$p < .001$; describing significant difference between men and women.

It is worrying to see that on average only 70% of correct answers are given, as it means that the participants respond erroneous on more than one out of four questions. Especially the second question seems to be difficult for the Dominicans, only 47% give the correct answer, whereof 39% men and 58% women. The mean scores on the general knowledge scale differ significantly between men ($M = .65$, $SD = .29$) and women ($M = .78$, $SD = .27$; $t(88) = -2.11$, $p = .04$; note that 0 = no and 1 = yes), which implies that men have less knowledge of HIV/AIDS. Anyway, concerning the particular questions no statistically significant gender differences with the chosen level of significance are found (1. $t(88) = -1.73$, $p = .09$; 2. $t(88) = -1.84$, $p = .07$; 3. $t(88) = -.54$, *ns* and 4. $t(88) = -1.52$, *ns*).

3.5 Analysis of correlation

The correlations between the particular constructs of the Theory of Planned Behavior and between the particular constructs of the Prototype Willingness Model are conducted separately. The relations between the variables are analyzed with Pearson correlation coefficients (r).

3.5.1 Analysis of correlation concerning the TPB variables

Table 9 displays the correlation analysis between the constructs of the Theory of Planned Behavior and actual condom use.

Table 9 Analysis of correlation of TPB constructs

	1. INT	2. AT	3. SN	4. PBC	5. SE	6. RE	7. PCU
1. Condom Use Intention (INT)	-	.72***	.42***	.04	.69***	.45***	.52***
2. Attitude (AT)		-	.40***	.09	.66***	.26*	.39***
3. Subjective Norm (SN)			-	.35**	.64***	.59***	.31*
4. Perceived Beh. Control (PBC)				-	.14	.04	.35***
5. Self-Efficacy (SE)					-	.34***	.44***
6. Response Efficacy (RE)						-	.37***
7. Percentage Condom Use (PCU)							-

Note. *$p < .05$ **$p < .01$ ***$p < .001$

The correlations of the TPB constructs are remarkably statistically significant. It is especially important to note that the correlations concerning the intention to use condoms are positively significant on the $p < .001$ level with one exception (Perceived behavioral control). The correlation coefficients show that the correlation between attitude and intention is good, whereby other values are moderate. Regarding the percentage of condom use; all correlations are positive and at least significant on the $p < .01$ level.

3.5.2 Analysis of correlation concerning the safe sex prototype variables of the PWM

Table 10 presents the correlation analysis regarding the constructs of the Prototype Willingness Model and actual condom use.

Table 10 Analysis of correlation regarding the PWM safe sex prototype constructs

	1. WSS	2. SSPT	3. SSS	4. SSA	5. PCU
1. Willingness to have safe sex (WSS)	-	.51***	.63***	.52***	.11
2. Safe Sex Prototype (SSPT)		-	.63***	.73***	.12
3. Safe Sex Prototype Similarity (SSS)			-	.72***	.04
4. Safe Sex Prototype Attractiveness (SSA)				-	.18
5. Percentage Condom Use (PCU)					-

Note. *$p < .05$ **$p < .01$ ***$p < .001$

It is noticeable that the correlations of the PWM constructs with the willingness to use condoms are positive statistically significant on the $p < .001$ level. Likewise the correlations among the constructs are positive significant on the $p < .001$ level. It is apparent that the safe sex prototype variables are not significantly linked to the actual condom use of the Dominican respondents.

3.5.3 Analysis of correlation concerning the unsafe sex prototype variables of the PWM

In table 11 the correlation analysis between the unsafe sex prototype constructs and actual condom use is displayed.

Table 11 Analysis of correlation regarding the PWM safe sex prototype constructs

	1. WUS	2. USPT	3. USS	4. USA	5. PCU
1. Willingness to have unsafe sex (WUS)	-	.38***	.66***	.61***	-.23*
2. Unsafe Sex Prototype (USPT)		-	.47***	.59***	-.31**
3. Unsafe Sex Prototype Similarity (USS)			-	.67***	-.25*
4. Unsafe Sex Prototype Attractiveness (USA)				-	-.44***
5. Percentage Condom Use (PCU)					-

Note. *$p < .05$ **$p < .01$ ***$p < .001$

According to this statistic, all correlations among the PWM constructs are significantly positive, with one exception: As expected, only the correlation between the variables and actual condom use are negative. Anyway, the correlation coefficient concerning the relation between the willingness to have unsafe sex and the actual condom use is weak and only significant on the $p < .05$ level; while unsafe prototype attractiveness is more significantly linked to actual condom use.

3.5.4 Analysis of correlation between the intention, both willingness constructs, actual condom use and the psychosocial contextual factors

In table 12 the correlations between the psychosocial factors (stigmatization variables, risky sexual behavior history, and knowledge) and intention, willingness and actual condom use are displayed.

Table 12 Analysis of correlation concerning the psychosocial factors

	Repulsion and blame dimension	Shame-fulness dimension	Avoidance/ coercion dimension	Social sanction dimension	Stigma general score	Previous risky sex. behavior	Knowledge
Intention	-.80***	-.80***	-.81***	-.78***	-.87***	-.57***	.70***
Willingness Safe Sex	-24**	-.32**	-.30**	-.33**	-.32**	-.51***	.51***
Willingness Unsafe Sex	.54***	.56***	.37***	.54***	.55***	.47***	-.45***
Percentage Condom Use	-.55***	-.43***	-.53***	-.40***	-.52***	-.34**	.48***

Note. *$p < .05$ **$p < .01$ ***$p < .001$

According to the theoretical background, the analysis of correlation highlights that the relations between the actual condom use, the intention, the willingness to have safe sex; and the psychosocial factors stigmatization and risky sexual behavior history are negative. The expected exceptions are the positive correlations between the stigmatization variables, previous risky sexual behavior and the willingness to have unsafe sex. These findings imply that respondents with a high level of stigmatization or a risky sexual behavior history seem to be more willing to have unsafe respectively risky sexual encounters, and they are accordingly less indented to use protection. There exist strong inverse correlations between all stigmatization variables and the intention to use condoms; the reliabilities of these correlations are statistical significant. These negative correlation coefficients indicate a strong relationship between stigmatization and intention such that as values for stigmatization increase, values for intention decrease. Concerning the willingness to have unsafe sex, the positive correlation coefficients indicate a moderate relationship between stigmatization and the willingness to have unprotected sex such that as values for stigmatization increases, this

willingness also increases. The correlation between the psychosocial contextual factors and the actual condom use is moderate; regarding the willingness to have safe sex there are only weak but anyway significant correlations found. The HIV/AIDS knowledge is positively linked to the intention, the willingness to have protected sex and actual condom use, this represents that Dominican participants with higher knowledge appeared to act less risky.

3.6 Regression Analysis

Different hierarchical regression analyses are performed to examine the relative contribution of different explanatory variables determined by the theoretical considerations on

1. the intention to use condoms
2. the willingness to have sex with condom
3. the willingness to have sex without condom
4. the actual condom use by means of TPB variables
5. the actual condom use by means of the Safe Sex constructs of the PWM
6. the actual condom use by means of the Unsafe Sex constructs of the PWM

Every table presents the standardized beta (β) coefficients, the level of statistical significance (p) and the explained variance (R^2).

3.6.1 Explaining intention to use condoms (TPB)

Table 13 presents the multiple regression analysis of the constructs of the Theory of Planned Behavior on the intention to use condoms. The standardized beta (β) coefficients and R^2 are displayed. Separate outputs for male and female respondents are given to outline the differences.

Table 13 Multiple regression analysis of the TPB constructs on the intention to use condoms

	β	β	β
	Male[a] (*n*=52)	Female[b] (*n*=38)	Total[c] (*n*=90)
Attitude towards condoms	.35**	.68**	.45***
Subjective Norm	-.28	-.22	-.21
Perceived Behavioral control	-.01	-.02	-.00
Self-Efficacy	.46*	.25	.41***
Response-Efficacy	.40*	.25*	.31***
R^2	.56	.78	.66

Note. *$p < .05$ **$p < .01$ ***$p < .001$
[a] $F(5,51) = 11.76$*** [b] $F(5,37) = 23.14$*** [c] $F(5, 89) = 32.97$***

The constructs of the TPB account among male respondents for 56% of the variance in intention to use condoms, with self-efficacy as strongest determinant ($t = 2.55$, $p = .014$). Moreover attitude ($t = 2.92$, $p = .005$) and response efficacy ($t = 2.50$, $p = .02$) have significant explanatory value.

Among female Dominican participants, the constructs of the TPB account for 78% of the variance in intention to use condoms. Attitude ($t = 3.23$, $p = .003$) has a significant positive beta weight and is clearly the strongest determinant of intention, while also response-efficacy ($t = 2.48$, $p = .02$) significantly explains intention.

Concerning both genders, the explained variance in intention is 66%, with positive beta weights for attitude ($t = 5.32$), self-efficacy ($t = 4.03$) and response-efficacy ($t = 3.84$). All three constructs are significant at the $p < .001$ level, while attitude is the strongest determinant. Unlike the expectations, the constructs subjective norm ($t = -1.95$, *ns*) and perceived behavioral control ($t = -.03$, *ns*) represent no unique explained variance in intention to have protected sex. Important to note is the higher explained variance in female (78%) than in male (56%) participants.

3.6.2 Explaining willingness to have sex with condom (PWM)

Table 14 displays the multiple regression analysis of the safe sex constructs of the Prototype Willingness Model on the willingness to use condoms. The standardized beta (β) coefficients and R^2 are displayed. Separate outputs for male and female respondents are given in order to be able to compare the genders.

Table 14 Multiple regression analysis of the PWM safe sex constructs on the willingness to have protected sex

	β	β	β
	Male[a] (*n*=52)	Female[b] (*n*=38)	Total[c] (*n*=90)
Safe Sex Prototype Favorability	-.18	.61**	.16
Safe Sex Prototype Similarity	.63***	.25	.49***
Safe Sex Prototype Attractiveness	.37*	-.42	.05
R^2	.66	.31	.42

Note. $^*p < .05$ $^{**}p < .01$ $^{***}p < .001$
[a] $F(3,51) = 31.11^{***}$ [b] $F(3,37) = 5.17^{**}$ [c] $F(3,89) = 20.67^{***}$

The safe sex constructs of the PWM show different level of explanatory value among male respondents, altogether accounting for 66% of the variance in willingness to use condoms. The safe sex prototype similarity is clearly the strongest determinant of willingness to have safe sex (t =5.01, $p < .001$), additionally safe sex prototype attractiveness (t = 2.57, p = .01) appears to explain protection willingness significantly.

Among women, the constructs of the PWM account for only 31% of the variance in the willingness to have protected sex, whereas the safe sex prototype favorability (t = 3.27, p = .002) is the only significant determinant.

Concerning both genders, the explained variance in willingness to protect is 42%, whereas only the safe sex prototype similarity (t = 4.03, $p < .001$) has explanatory value. The safe sex prototype favorability and the safe sex prototype attractiveness do not add unique explained variance concerning the willingness to use condoms. It is remarkable that the higher explained variance in male (66%) than in female (31%) respondents is exactly the other way round than observed at the TPB constructs.

3.6.3 Explaining willingness to have sex without condom (PWM)

Table 15 presents the multiple regression analysis of the safe sex constructs of the Prototype Willingness Model on the willingness to have unprotected sex. The standardized beta (β) coefficients and R^2 are displayed. Separate outputs for male and female respondents are given in order to compare genders.

Table 15 Multiple regression analysis of the PWM unsafe sex constructs on the willingness to have unprotected sex

	β	β	β
	Male[a] (*n*=52)	Female[b] (*n*=38)	Total[c] (*n*=90)
Unsafe Sex Prototype Favorability	.07	-.32*	-.02
Unsafe Sex Prototype Similarity	.40**	.73***	.46***
Unsafe Sex Prototype Attractiveness	.26	.40*	.32**
R^2	.41	.75	.48

Note. *$p < .05$ **$p < .01$ ***$p < .001$
[a] $F(3,51) = 10.92$*** [b] $F(3,37) = 34.83$*** [c] $F(3,89) = 26.76$***

Among Dominican men only unsafe sex prototype similarity ($t = 2.86$, $p = .006$) significantly adds explanatory value to the willingness to have sexual intercourse without condom accounting for 41% of the variance in this willingness.

Regarding the beta weights among Dominican women, the unsafe sex prototype similarity appears to be the strongest determinant of the willingness to have unprotected sex ($t = 4.93$, $p < .001$), followed by unsafe sex prototype attractiveness ($t = 2.18$, $p = .04$). Contrary to the expectation, the unsafe sex prototype favorability displays a significant negative beta weight, meaning the created prototype image has negative influence on the willingness to have unsafe sex ($t = -2.32$, $p = .03$). Altogether, these PWM constructs account for 75% of the variance in willingness to have unprotected sex among female respondents.

The unsafe sex constructs of the PWM account for nearly half (48%) of the explained variance in willingness to have sex without condom regarding both genders. The unsafe sex prototype similarity is the strongest determinant of willingness to have unprotected sex ($t = 4.36$, $p < .001$), as observed at the regression of the PWM safe sex constructs on the willingness to have safe sex. In this case, besides the unsafe sex prototype attractiveness ($t = 2.75$, $p = .007$) significantly explains willingness to have unsafe sex. The unsafe sex prototype

favorability (t = -.22, *ns*) represents no unique explained variance in willingness to have unprotected sex.

3.6.4 Explaining actual condom use by means of TPB variables

Table 16 displays the multiple regression analysis of all TPB variables, including the intention to use condoms, on actual condom use of the Dominican respondents.

Table 16 Multiple regression analysis of the TPB constructs on actual condom use

	β	β	β
	Male[a] (n=52)	Female[b] (n=38)	Total[c] (n=90)
Intention to use protection	.06	.45*	.31*
Attitude towards condoms	-.20	1.26***	.00
Subjective Norm	-.98***	-.51***	-.33*
Perceived Behavioral Control	.77***	-.20	.40***
Self-Efficacy	.64***	-.71**	.28*
Response-Efficacy	.76***	-.05	.31**
R^2	.64	.76	.44

Note. *p < .05 **p < .01 ***p < .001
[a] $F(6,51)=13.16$*** [b] $F(6,37)=15.87$*** [c] $F(6,89)=10.79$***

The TPB constructs account for 64% of the variance in actual condom use among male respondents. Subjective norm appears to be the strongest determinant (t = -4.19, p < .001), although it is against the expectation that the perception of approval or disapproval from significant others regarding the use of condoms (and the individual's motivation to comply with those expectations) is significantly negative related to the actual condom use of the Dominican men. Besides, contrary to the expectations according to the theoretical background, the intention is not an independent predictor of condom use (t = .45, *ns*). Nevertheless, like expected with positive beta weights, perceived behavioral control (t = 6.40, p < .001), self-efficacy (t = 3.60, p < .001) and response efficacy (t = 4.84, p < .001) significantly explain actual condom use, such that a high value on one of these scales seems to account for a high frequency of actual condom use.

Among Dominican women, all TPB variables account for 76% of the total variance in actual condom use, whereas attitude (t = 4.83, p < .001) is the most important significant

determinant explaining actual condom use (Beta weight can exceed the range of ± 1 when the predictors are highly correlated with each other; Meyers, Gamst, & Guarino, 2006). As observed in the analyses for males, explaining actual condom use through subjective norm (t = -4.00, p < .001) do not correspond to the theoretical background. Likewise this applies to the construct self-efficacy (t = -3.46, p = .002). The significant negative beta weights of both constructs (whereas self-efficacy is still stronger than subjective norm) imply that contrary to the expectation the actual condom use of Dominican women is inverse related to self efficacy and subjective norm. Thus, even though the self-efficacy and the subjective norm concerning consistent condom use are high, the actual condom use is low. Additionally, intention (t = 2.38, p = .02) explains the actual condom use of the females, regarding the beta weight with lowest explanatory value, but still significant at the chosen level.

Concerning both genders the explained variance of actual condom use is 44% in this research. The determinants of actual condom use are perceived behavioral control (t = 4.42, p < .001), self-efficacy (t = 1.93, p = .05), response-efficacy (t = 2.76, p = .007) and intention (t = 2.17, p = .03), with PBC being the strongest determining variable. As theoretically anticipated, these beta weights are positive, implying that a high value is related to a consistent condom use. Attitude toward condoms (t = .00, *ns*) do not represents unique explained variance in actual condom use. As aforementioned in the separated gender analyses, a higher subjective norm of the participants significantly explains a lower percentage of respondents having protected sex (t = -2.34, p = .02). Further analyses, which will not be discussed here in detail, outlined the possibility that the subjective norm acts as a suppressor variable in this regression analysis. This suppressor effect can occur if an independent variable correlates high with the other predictor variables and low with the dependent criterion. There is thus common variance of subjective norm with other independent variables (self-efficacy and attitude), which causes a significant negative beta weight in the multiple regression equation increasing the explaining value of those other variables through absorbing their irrelevant variance (Kutner, Nachtsheim, Neter, & Li, 2005).

3.6.5 Explaining actual condom use with the safe sex constructs of the PWM

Table 17 presents the multiple regression analysis of all safe sex PWM variables, including the willingness to use condoms, on actual condom use of the Dominican participants.

Table 17 Multiple regression analysis of PWM safe sex constructs, including willingness to use condoms, on actual condom use

	β	β	β
	Male[a] (*n*=52)	Female[b] (*n*=38)	Total[c] (*n*=90)
Willingness to have safe sex	.04	.18	.10
Safe Sex Prototype Favorability	.00	.12	.01
Safe Sex Prototype Similarity	-.23	-.37	-.25
Safe Sex Prototype Attractiveness	.21	.49	.30
R^2	.03	.21	.06

Note. $^*p < .05$ $^{**}p < .01$ $^{***}p < .001$
[a] $F(4,51) = .31$, *ns* [b] $F(4,37) = 2.13$, *ns* [c] $F(4,89) = 1.29$, *ns*

Among male respondents the constructs of the PWM account for only 3% of the variance in the willingness to use condoms, whereas none of the constructs significantly explains the actual condom use (willingness to have safe sex: $t = .17$, *ns*; safe sex prototype favorability: $t = -.01$, *ns*; safe sex prototype similarity: $t = -.87$, *ns*; safe sex prototype attractiveness: $t = .80$, *ns*).

The safe sex constructs of the PWM account for 21% of the variance in actual condom use of Dominican women, whereas again none of the constructs significantly explain the actual percentage of condom use. Only the safe sex prototype attractiveness is approaching significance ($t = 1.97$, $p = .058$), while the willingness to have safe sex ($t = .96$, *ns*), the safe sex prototype favorability ($t = .51$, *ns*) and the safe sex prototype similarity ($t = -1.68$, *ns*) do not add explanatory value.

In summary, it is clear that the PWM safe sex constructs do not explain the actual condom use for both genders. The explained variance for the whole participant-population is only 6%, with none of the variables even approaching significance in explaining the consistency of condom use in the Dominican population (safe sex prototype favorability $t = .08$, *ns*; safe sex prototype similarity $t = -1.46$, *ns* and safe sex attractiveness $t = 1.70$, *ns*). It is especially important to note that willingness to have safe sex is not an independent predictor

of condom use (t = .74, *ns*). This is in contrast to the theoretical prediction, which states that willingness is supposed to be the most proximal determinant of consistent condom use.

3.6.6 Explaining actual condom use with the unsafe sex constructs of the PWM

Table 18 displays the multiple regression analysis of all unsafe sex PWM variables, including the willingness to have unprotected sexual intercourse, on actual condom use of the Dominican participants.

Table 18 Multiple regression analysis of PWM unsafe sex constructs, including willingness to have sex without condoms, on actual condom use

	β	β	β
	Male[a] (n=52)	Female[b] (n=38)	Total[c] (n=90)
Willingness to have unsafe sex	.33*	-.99***	.03
Unsafe Sex Prototype Favorability	-.13	-.72**	-.08
Unsafe Sex Prototype Similarity	.03	.34	.07
Unsafe Sex Prototype Attractiveness	-.65***	.72*	-.46**
R^2	.36	.46	.20

Note. *p < .05 **p < .01 ***p < .001
[a] $F(4,51) = 6.68$*** [b] $F(4,37) = 7.00$*** [c] $F(4,89) = 5.31$***

The unsafe sex constructs of the PWM generally show more explanatory value than the safe sex constructs; accounting for 36% of the variance in actual condom use among Dominican men. The unsafe sex prototype attractiveness appears to be the strongest determinant (t = -4.01, p < .001). Additionally, willingness to have unsafe sex significantly explains actual condom use (t = 2.15, p = .04), though this finding is contrary to the expectation according to the theoretical background. The positive beta weight of willingness implies that a high willingness to have unsafe sex is related to an increasing frequency of protection use among Dominican men, which is obvious illogical. Moreover, the unsafe sex prototype favorability (t = -.95, *ns*), and the unsafe sex prototype similarity (t = .20, *ns*) represent no unique explained variance in actual condom use.

Among the Dominican women, the unsafe sex constructs of the PWM account for 46% of the variance in actual condom use, while willingness to have unsafe sex is the strongest determinant of condom use behavior (t = -3.89, p < .001). This is opposed to the findings observed for males, and thus in line with the expectation that willingness is

theoretically the most proximal determinant to actual condom use. Additionally, unsafe sex prototype favorability (t = -3.23, p = .003) adds with a negative beta weight explanatory value concerning actual condom use. In contrast, unsafe sex prototype attractiveness (t = 2.44, p = .02) has a significant positive beta weight, which implies that a higher attractiveness concerning the unsafe sex prototype is related to an increasing frequency of protection. The unsafe sex prototype similarity (t = 1.18, *ns*) does not add explanatory value.

In total, one of the unsafe sex constructs appears to explain the actual condom use, namely unsafe sex prototype attractiveness as strongest determinant (t = -3.03, p < .001). The explained variance for the whole participant population is 20%, with none of the remaining variables even approaching significance (willingness to have unsafe sex: t = .24, *ns*; safe sex prototype favorability: t = -.66, *ns* and safe sex prototype similarity: t = .48, *ns*).

4. Discussion

4.1 Conclusion

This research especially aims at comparing the explanatory quality of the Theory of Planned Behavior (with added components of the Protection Motivation Theory) and the Prototype Willingness Model. Summarized, the Theory of Planned Behavior and the additional Protection Motivation Theory variables have clearly better explanatory quality than both constructs of the Prototype Willingness Model; with explained variances in factual protection use of 44% (unsafe sex constructs explain 20% in variance to be willing to have unprotected sex; safe sex constructs explain only 6% in willingness to use condoms). Moreover the relation between stigmatization and condom use behavior in sexual encounters is confirmed, thus the expected linkage between high stigmatizing beliefs and a low protection motivation is detected. Besides it is clearly identified that the Dominican respondents display risky sexual behavior in terms of multiple sexual partners and inconsistent condom use. Although gender differences are not as great as anticipated, it seems useful to take gender as important variable in the cultural context of this research into account. As several researchers accentuated (and recent results supporting the existence of gender differences), sexual behavior is based on gender stereotypical expectations (Gupta, 2002; Jones, 2006).

In regard to the different TPB and PMT variables, attitude towards condoms, self-efficacy and response-efficacy significantly add value explaining the intention to use condoms among the total Dominican sample. This means the intention of the respondents to have protected sexual intercourse increase, if they have a favorable attitude towards condoms and sufficient coping resources available in dealing with the threats associated with the non-use of condoms. There are gender differences detected; for female participants a favorable attitude toward condoms appears to be more important in implementing the use of condoms; while male's estimated ability to successfully use condoms (self-efficacy) and their expectancy that using protection remove the health-threat (health-related attitude / response efficacy) have positive influence on the intention.

Subsequently, the intention to use condoms is linked to the actual condom use behavior of all respondents, although it is not the strongest predictor in this investigation, as preliminarily theoretically anticipated. Instead of intention, a consistent condom use is better explained through a high degree of perceived behavioral control (PBC), whereas this finding is consistent with the literature. Godin and Kok (1996) emphasized in a TPB review concerning the health domain that PBC can influence behavior directly (based on experiences

with previous encountered obstacles), paralleling the influence of intention. Since PBC reflects the personal beliefs how easy or difficult performing the behavior is likely to be, these beliefs appear to strongly influence the Dominican population. Likewise self-efficacy and response-efficacy add explanatory value; first this is an acknowledgement of the meaningful usage of the both additional variables adapted from the Protection Motivation theory in this research (Milne, Sheeran, & Orbell, 2000). Second, this finding confirms the importance of coping resources. It is apparent that the respondents perceive they can practically use condoms and that this use leads to protection of their own health; therefore they not only intend to protect themselves, but in fact consistently use condoms.

In contrast to the expectation and consequently to the existing literature concerning the TPB, a higher subjective norm, both for male and female participants, significantly explains a lower percentage of Dominican having protected sex. According to the theoretical background, a higher subjective norm works as support for acting out the behavior in question. Since the subjective norm in this research is apparently positive in terms of condom use, it should lead to consistent protection behavior.

A possible explanation for this counter-intuitive finding first concerns the lack of sufficient scale reliability of the assessed subjective norm items in this research. This caused a deletion of the item concerning the perception of approval or disapproval from the partner regarding the use of condoms (combined with the individual's motivation to comply with those expectations). It is possible that the deletion of obviously the most important person regarding the topic condom use influenced the results.

The second explanation derives from a meta-analytic review of the TPB that identified general shortcomings of this variable. Armitage and Connor (2001) detected that subjective norms consistently emerge as a weak predictor of intentions and behavior in applications of the TPB; which appeared to be partly attributable to a combination of poor measurement and the need for expansion of the normative component. Subjective norm is operationalized as a global perception of social pressure either to comply with the wishes of others or not (Ajzen, 1991). However, social pressure is rarely so direct or explicit, leading a number of researchers to suggest alternative conceptualizations.

The cultural background of the recent investigation presents a further explanation. Although societal 'ideal gender concepts' are not explicitly measured in this research, it is possible that these rooted norms in general exerts influence in the Dominican Republic. In several documents concerning gender differences and HIV/ AIDS vulnerability, UNAIDS (2008) pointed out that especially in Latin American cultures children are raised to a defined

societal gender role. Girls are expected to be ignorant on sexual matters and may fear being perceived as promiscuous if they show an interest in or have knowledge about sexuality issues. The expressions of female sexuality are expected to be restricted to marriage or legal unions, and traditional notions of femininity, such as passivity, virginity and sexual innocence have to be internalized. By contrast, many boys are brought up to believe that males are expected to be experienced in and knowledgeable about sex, which may encourage them to have multiple sexual partners and deter them from asking questions or seeking health-related information (Wingood & DiClemente, 2000). According to Stevens (1973) and Gupta (2002) these patterns can be described by the terms machismo and marianismo. Machismo is then defined as being authoritarian within the family, aggressive, virile and promiscuous. A further component of machismo includes supporting the traditional female role of sexual submissiveness, virginity until marriage, and female responsibility for child rearing and household maintenance. This represents that women who fit the marianismo profile tend to be women who work for their families; they often tolerate their husband's sexual indiscretions and teach their daughters to remain virgins until marriage, because a girl who is known as promiscuous brings disgrace not only on herself, but on the whole family. These findings imply a double morality in the context of sexuality; men may be quite promiscuous while virginity is a virtue for women (Gupta, 2002). All these factors can have constraining influence on truthful answers; especially for young women in the 20th century it can be difficult to fulfill the designated societal role. Regarding this research, it seems that the Dominican female respondents answer desirable because of the social pressure to comply with the wishes of the (assessed) important others, namely mother and father (like Ajzen acknowledged). Besides, the fact that the Dominican Republic as a developing country has (possibly) changing values and norms, can exert influence on the younger generation.

Furthermore a meta-analysis indicated that attitudes and subjective norms correlated with self-reported behavior, but did not correlate with documentary evidence (Armitage & Connor, 2001). Consequently, the implication regarding the unexpected results is that the assessed self-reports of quantity sexual partners and frequency of condom use were unreliable. Although this is within the realms of possibility, it is really unlikely, because besides this one variable all TPB constructs act as repeatedly predicted in several studies, even with similar explained variances (Godin & Kok, 1996; Albarracín et al., 2001). In summary, the aforementioned reasons can potentially explain the finding that the subjective norm in this research is not reliable; nevertheless this finding needs further exploration.

Regarding further the explanatory quality of the TPB concerning the actual condom

use, there are notable gender differences in actual condom use. Among males, subjective norm appears to explain best the condom use, but inconsistent with literature reviews, as explained above. Nevertheless, the Dominican men experiencing high perceived behavioral control, high self-efficacy and high response-efficacy appear to use more consistent protection. Among females a favorable attitude strongly influences the protection behavior, the more favorable the beliefs they have about the consequences of condom use are, the more frequently they use condoms. Additionally, the intention adds explanatory value, since the Dominican women intend to have safe sex; they seem to implement this intention. Contrary to the expectation a high self-efficacy and a high subjective norm negatively affects the protection behavior. This denotes that although the Dominican women perceive themselves as capable to utilize condoms, they do not use them regularly. It is probable that the women feel able to use condoms, but due to cultural values (marianismo) they just do not implement this in reality (Gupta, 2002).

In summary, the expectation in regard to this social cognition model is confirmed. The Theory of Planned Behavior and the additional constructs of the Protection Motivation Theory display good explanatory quality concerning the intention of the Dominican participants to have safe sexual intercourse, with the constructs altogether accounting for 44% in the variance of actual condom use. Remarkably, though, intention is contrary to the expectation not the strongest predictor.

The analyses concerning the explanatory quality of the Prototype Willingness Model partly confirm the expectations. In the following section the added value of the Safe Sex Prototype and the Unsafe Sex Prototype to the consistency of condom use are explained.

Although the safe sex prototype similarity exclusively predicts willingness to have protected sex, all assessed safe sex constructs (including the willingness, which is theoretically expected to be the most proximal determinant) cannot forecast actual condom use of the Dominican participants. There are again distinctions between genders detected. Male's willingness to have protected sex is influenced by the safe sex prototype similarity and attractiveness, with a good explained variance (66%), while female's willingness is related to the safe sex prototype favorability only with a low explained variance (31%). This implies that male respondents who see themselves similar to the safe sex image and positively evaluate this image, have a greater inclination to engage in safe sex.

Concerning the Unsafe Sex constructs, the willingness of the Dominicans to have unprotected sex is explained through a higher similarity to the typical person and a higher degree of prototype attractiveness, according to the theoretical assumptions. The female

respondents rated the unsafe sex prototype image apparent lower than the men, while not approaching significance. It therefore seems possible that their created prototype image can negatively influence their willingness to have unsafe sex. Summarized, it appears that prototype similarity is the most valuable single item construct in explaining the willingness, but not the actual condom use (observing both genders and prototypes).

In this research, there is only an explanation of the actual condom use found by means of PWM unsafe sex constructs (contrary to the safe sex constructs). These results are consistent with the literature; it appears that people are more motivated to use condoms by a desire to avoid association with risky-behavior image than by a desire to gain association with a healthy-behavior image (Blanton et al., 2001). It is clearly detected that the most valuable construct in explaining the consistent protection behavior is the degree of attractiveness one ascribes to the unsafe sex image. The gender difference with respect to the explanatory quality of the unsafe sex constructs is remarkable. Among men, unsafe sex prototype attractiveness appears to be the strongest determinant, though either a high willingness to have unsafe sex is related to an increasing frequency of protection use among Dominican men. Among women, willingness is the most proximal determinant to actual condom use, while unsafe sex prototype attractiveness has contrary to the expectation positive influence. A possible explanation for this finding is rooted in the Dominican culture regarding societal gender roles; which obviously also influence the results concerning the social component of the TPB. Due to the PWM assumption that behavior occurs as result of a social reaction pathway, the explanation of double moral can apply here, too.

Stigmatization of HIV/AIDS is in this research identified as important variable in relation to willingness, intention and actual condom use. The theoretical assumption of a paradoxical reaction in relation to the self-protective function of stigmatizing is confirmed (Boer & Emons, 2004; Burkholder et al. 1999). The Dominican participants seem to view themselves differently from the perceived HIV/AIDS risk-group and consequently the associated stereotyping of HIV risk behavior can actually undermine HIV protective behavior, thus condom use. Concerning the different dimensions of the designed scale, further research with more respondents and especially a good gender balance is necessary. It is expected that men and women clearly differ (for instance on the social sanction dimension), though in this research no significant differences are found.

Although it is acknowledged that further research is necessary in respect to some components, the aforementioned findings, especially concerning the value and usefulness of both psychological theories, have practical implications for interventions targeting at

vulnerability and risk reduction concerning HIV of young people in the Caribbean (or similar cultural background).

4.2 Limitations

The first and most important limitation of the contemporary research is the small number of respondents and the resultant imbalance concerning age structure. Furthermore the difference between the number of male and female participants is a hinder for the analyses. Altogether the population of participants makes it barely possible to generalize to the whole Dominican population in the age group of 15 to 30 years. The small number of respondents originated from difficulties in recruiting participants; most of them expected service in return. On one hand, these difficulties are ascribed to the high levels of poverty in the country, as probably a lack of money led to the questions concerning financial compensation for participation. On the other hand, it was obvious that some Dominicans could not read or write enough to fill in the questionnaire. According to the CIA World Fact Book (2010) the illiteracy rate of the total population is 13% (definition: people age 15 and over that cannot read and write), although the individual impression of the conductor of this research was that it could be remarkably higher.

The second constriction regarding this research is either an explanation for the high rejection rate: the measurement instrument, thus the questionnaire, should be constructed as easy as possible. This is a limitation in the contemporary research, because many participants needed help filling in, which in turn was time-consuming for the researcher and yielded difficulties regarding the anonymity.

A further limitation is generally related to measures of sexual behavior and condom use. The current results assume that self-reported behaviors are accurate reflections of persons' actions. Nevertheless, it is reasonable to expect that the accuracy of self-reports can vary (Albarracín et al., 2001). It is possible that the respondents did not answer all questions truthfully, or they made social desirable declarations, especially regarding the sensitive context of sexual behavior. Although effort was done to avoid social desirable answers through assuring anonymity, it is possible that the actual given answers were not in accordance with the real behavior.

4.3 Recommendations

There are several recommendations concerning future research. By reason of little conducted research concerning the comparison of the Theory of Planned Behavior and the Prototype

Willingness Model, this should be one of the connections to future studies. Moreover this should take place in different cultural contexts, accounting for further influential relevant variables, to be better able to detect the analogies and differences regarding cultural, psychosocial and contextual factors.

Furthermore, there are recommendations concerning the construction of the measurement instrument. Firstly, it should be investigated if an extension of the Prototype Willingness Model constructs 'prototype similarity' and 'prototype attractiveness' is useful. A measurement based on more than one item is in general more reliable. Secondly, the measurement of the construct risky sexual behavior history should be extended; especially the transactional sex component. The last recommendation concerns the age and gender spreading for research similar to the contemporary: The age group as well as the gender allocation should be chosen more specifically.

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Appendix

1. Questionnaire Spanish
2. Questionnaire English

CUESTIONARIO

Sentido de esta investigación

- Este cuestionario se trata de la opinión pública sobre el sexo seguro.

Cómo llenar la encuesta

- Por favor marca con un círculo el número que mejor represente tu opinión.
- Ten presente que no hay respuestas incorrectas o malas, porque tu respuesta representa tu opinión personal.

Todas tus respuestas serán procesadas de forma anónima.

Información general

¿Cual es tu sexo? □ masculino □ femenino

¿Cuántos años tienes tú? _____ años

¿Cuál es tu nacionalidad? _____

¿Cuántos años tienes viviendo en la República Dominicana? _____ años

Selecciona el nivel de educación más alto que hayas completado.

□ la escuela primaria (el octavo de primaria)
□ la escuela secundaria (el cuarto de secundaria)
□ la universidad
□ otro

¿Cuantos años de educación formal has completado? _____años

¿Tienes trabajo? □ sí □ no

¿Qué tipo de trabajo realizas? _____

¿Trabajas en turismo? □ sí □ no

¿Cuál es tu estado civil?

□ soltero/a
□ novio/a
□ casado/a
□ divorciado/a
□ viudo/a

Las preguntas en esta página y en la próxima se refieren a las características que concuerdan con alguien que practica sexo con y sin condón. Si piensas que la característica no concuerda con ese tipo persona, marca con un círculo el número 1, y si la característica concuerda perfectamente marca con un círculo el número 7.

Contesta las siguientes preguntas seleccionando una de las siguientes alternativas:

1. no, en absoluto
2. no
3. muy poco
4. un poco
5. bastante
6. sí, apropiado
7. sí, muy apropiado

Indica en qué medida piensas tú que los atributos mencionados abajo encajan a alguien de tu edad que practica **sexo sin protección (sin condón).** Una persona de tu edad que practica sexo sin protección (sin condón) es…

	no, en absoluto	**no**	**muy poco**	**un poco**	**bastante**	**sí, apropiado**	**sí, muy apropiado**
inteligente	1	2	3	4	5	6	7
desarreglado	1	2	3	4	5	6	7
popular	1	2	3	4	5	6	7
inmaduro	1	2	3	4	5	6	7
tranquilo	1	2	3	4	5	6	7
seguro de sí mismo	1	2	3	4	5	6	7
independiente	1	2	3	4	5	6	7
irresponsable	1	2	3	4	5	6	7
atractivo	1	2	3	4	5	6	7
aburrido	1	2	3	4	5	6	7
cuidadoso	1	2	3	4	5	6	7
egoísta	1	2	3	4	5	6	7
razonable	1	2	3	4	5	6	7
bien vestido	1	2	3	4	5	6	7
amable	1	2	3	4	5	6	7
joven	1	2	3	4	5	6	7
estúpido	1	2	3	4	5	6	7
tímido	1	2	3	4	5	6	7
pensativo	1	2	3	4	5	6	7
indiferente	1	2	3	4	5	6	7

¿Pareces tú a este tipo de persona? ¿En qué medida?

no, en absoluto						**Sí, completamente**
1	2	3	4	5	6	7

¿Con qué frecuencia piensas en este tipo de persona?

nunca						**muy frecuentemente**
1	2	3	4	5	6	7

¿Piensas que este tipo de persona es atractivo?

No atractivo en absoluto						**Sí, muy atractivo**
1	2	3	4	5	6	7

Indica en qué medida piensas que los atributos mencionados abajo encajan a alguien de tu edad que practica **sexo seguro (con condón).** Una persona de tu edad que practica sexo seguro (con condón) es…

	no, en absoluto	**no**	**muy poco**	**un poco**	**bastante**	**sí, apropiado**	**sí, muy apropiado**
inteligente	1	2	3	4	5	6	7
desarreglado	1	2	3	4	5	6	7
popular	1	2	3	4	5	6	7
inmaduro	1	2	3	4	5	6	7
tranquilo	1	2	3	4	5	6	7
seguro de sí mismo	1	2	3	4	5	6	7
independiente	1	2	3	4	5	6	7
irresponsable	1	2	3	4	5	6	7
atractivo	1	2	3	4	5	6	7
aburrido	1	2	3	4	5	6	7
cuidadoso	1	2	3	4	5	6	7
egoísta	1	2	3	4	5	6	7
razonable	1	2	3	4	5	6	7
bien vestido	1	2	3	4	5	6	7
amable	1	2	3	4	5	6	7
joven	1	2	3	4	5	6	7
estúpido	1	2	3	4	5	6	7
tímido	1	2	3	4	5	6	7
pensativo	1	2	3	4	5	6	7
indiferente	1	2	3	4	5	6	7

¿Pareces tú a este tipo de persona? ¿En qué medida?

no, en absoluto						**Sí, completamente**
1	2	3	4	5	6	7

¿Con qué frecuencia piensas en este tipo de persona?

nunca						**muy frecuentemente**
1	2	3	4	5	6	7

¿Piensas que este tipo de persona es atractivo?

No atractivo en absoluto						**muy atractivo**
1	2	3	4	5	6	7

Imagínate que tienes una cita con un hombre o una mujer de tu edad y esta persona quiere tener sexo contigo, pero ninguno de Uds. tiene un condón. ¿Cuál probabilidad existe:

a) que **no tienes sexo** en esta situación?

muy improbable						**muy probable**
1	2	3	4	5	6	7

b) que **tienes sexo** a pesar de no tener condón?

muy improbable						**muy probable**
1	2	3	4	5	6	7

Contesta las siguientes preguntas seleccionando una de las siguientes opciones:

1. completamente en desacuerdo
2. en desacuerdo
3. neutral
4. de acuerdo
5. completamente de acuerdo

		Completa-mente en desacuerdo	En desacuerdo	Neutral	De acuerdo	Completa-mente de acuerdo
1.	Tener relaciones sexuales usando condón es menos romántico	1	2	3	4	5
2.	Tener relaciones sexuales usando condón es menos agradable	1	2	3	4	5
3.	Usar condones es una interrupción fastidiosa	1	2	3	4	5
4.	Usar condones reduce el placer sexual de mi pareja	1	2	3	4	5
5.	Usar condones reduce mi placer sexual	1	2	3	4	5
6.	Usar condones hace el sexo complicado	1	2	3	4	5
7.	Usar condones hace el sexo vergonzoso	1	2	3	4	5
8.	Usar condones puede hacer que mi pareja piense que me acuesto con varias personas	1	2	3	4	5
9.	Proponer el uso de condones, puede hacer que mi pareja piense que yo no confío en él/ella	1	2	3	4	5
10.	Usar condones provocará resistencia en mi pareja	1	2	3	4	5
11.	Pienso que los condones son costosos	1	2	3	4	5
12.	Mi pareja actual piensa que debemos usar condones	1	2	3	4	5
13.	Me importa la opinión de mi pareja actual	1	2	3	4	5
14.	Mis amigos piensan que debo usar condones	1	2	3	4	5
15.	Me importa la opinión de mis amigos	1	2	3	4	5
16.	Mi doctor me recomienda el uso de condones	1	2	3	4	5
17.	Me importa la opinión de mi doctor	1	2	3	4	5
18.	Mi madre piensa que debo usar condones	1	2	3	4	5
19.	Me importa la opinión de mi madre	1	2	3	4	5

		Completa-mente en desacuerdo	En desacuerdo	Neutral	De acuerdo	Completa-mente de acuerdo
20.	Mi padre piensa que debo usar condones	1	2	3	4	5
21.	Me importa la opinión de mi padre	1	2	3	4	5
22.	Usar o no usar condones depende totalmente de mí	1	2	3	4	5
23.	Tengo mucho control personal sobre el uso de condones	1	2	3	4	5
24.	Usar condones me protege del contagio de VIH	1	2	3	4	5
25.	Usar condones me protege contra otras ETS (Enfermedades de Transmisión Sexual)	1	2	3	4	5
26.	Usar condones me protege de embarazos no deseados	1	2	3	4	5
27.	Es difícil para mi hablar acerca de condones	1	2	3	4	5
28.	Sería difícil para mi interrumpir el sexo para colocarse un condón	1	2	3	4	5
29.	Pienso que usar condones es difícil	1	2	3	4	5
30.	Soy capaz de hablar con mi pareja acerca del sexo seguro	1	2	3	4	5
31.	Soy capaz de preguntar a mi pareja sobre su historia sexual	1	2	3	4	5
32.	Soy capaz de hablar con mi madre acerca del sexo seguro	1	2	3	4	5
33.	Soy capaz de hablar con mi padre acerca del sexo seguro	1	2	3	4	5
34.	Soy capaz de preguntar a mi madre como usar un condón	1	2	3	4	5
35.	Soy capaz de preguntar a mi padre como usar un condón	1	2	3	4	5
36.	Es difícil planear por adelantado el uso de condones	1	2	3	4	5
37.	Tengo miedo de darle una mala impresión a mi pareja al sugerir el uso de condones	1	2	3	4	5
38.	Mi pareja se enfadaría si yo le propusiese usar condón	1	2	3	4	5
39.	En el futuro, siempre usaré condones	1	2	3	4	5
40.	En el futuro, no tendré relaciones sexuales si no hay la posibilidad de usar condones	1	2	3	4	5

	Completa-mente en desacuerdo	En desacuerdo	Neutral	De acuerdo	Completa-mente de acuerdo
41. En el futuro, exigiré usar condones, aunque mi pareja no lo quiera	1	2	3	4	5
42. Si mi pareja no quisiera usar condón, yo aceptaría su decisión	1	2	3	4	5
43. Si mi pareja no quisiera usar un condón, yo intentaría convencerlo de que lo usara	1	2	3	4	5
44. La gente infectada de SIDA es sucia/indecente	1	2	3	4	5
45. La gente infectada de SIDA es maldita	1	2	3	4	5
46. No se puede confiar en la gente que tiene SIDA	1	2	3	4	5
47. La gente que tiene SIDA es como cualquier otra	1	2	3	4	5
48. La gente infectada de SIDA debe tener vergüenza	1	2	3	4	5
49. La gente infectada de SIDA no tiene nada de que sentirse culpable	1	2	3	4	5
50. La mayoría de las personas contrae SIDA porque son débiles o tontos	1	2	3	4	5
51. Es seguro trabajar con niños si uno tiene SIDA	1	2	3	4	5
52. La gente infectada de SIDA tiene que esperar algunas limitaciones a su libertad	1	2	3	4	5
53. Una persona con SIDA ha hecho algo malo y merece ser castigada	1	2	3	4	5
54. La gente infectada de SIDA debe ser aislada	1	2	3	4	5
55. Yo no quiero ser amigo de alguien infectado de VIH/SIDA	1	2	3	4	5
56. A la gente infectada de SIDA no debe permitírsele trabajar	1	2	3	4	5
57. Yo no aceptaría a una persona con SIDA dentro de mi familia	1	2	3	4	5
58. Yo no quiero estar en el mismo círculo de amigos que una persona con VIH/SIDA	1	2	3	4	5
59. La gente infectada de SIDA debe sentirse culpable	1	2	3	4	5
60. La mayoría de la gente infectada de VIH/SIDA es tonta y estúpida	1	2	3	4	5
61. La mayoría de la gente infectada de VIH es responsable de infectarse	1	2	3	4	5

Esté seguro de que tus repuestas serán procesadas de forma anónima.

	si	no	no aplicable/ ninguna declaración
¿Usaste un condón la última vez que tuviste relaciones sexuales?	1	2	3
¿Has pagado dinero o algún objeto en especie a cambio de sexo?	1	2	3
¿Has recibido dinero o alguna cosa para sobrevivir a cambio de sexo?	1	2	3
¿Alguna vez te has inyectado drogas?	1	2	3
¿Alguna vez tuviste sexo con una pareja que se había inyectado drogas?	1	2	3
¿Alguna vez tuviste un episodio de una enfermedad de transmisión sexual?	1	2	3
¿Conoces a alguien que se encuentre infectado de SIDA?	1	2	3
¿Has tenido contacto físico con una persona infectada de SIDA?	1	2	3
¿Tienes amigos/ un amigo que este infectado de VIH/SIDA?	1	2	3
La gente con SIDA debe ocultar el hecho de que tiene SIDA.	1	2	3
Estoy preocupado que me pueda infectar de VIH.	1	2	3
El SIDA es causado por el VIH.	1	2	3
Alguien infectado de VIH contraerá el SIDA dentro de 3 meses.	1	2	3
Alguien que se ve saludable ya puede estar infectado de VIH.	1	2	3
Alguien que está infectado de VIH pero no se le ha desarrollado el SIDA todavía, puede transmitir el VIH por contacto sexual.	1	2	3
¿Alguna vez te has realizado una prueba de SIDA?	1	2	3

¿Si tu respuesta a la última pregunta es afirmativa, cuántas veces te has realizado una prueba de SIDA? _____ veces

¿Con cuantas personas tuviste relaciones sexuales en los últimos tres meses? *Por favor marca con una "x", indicando con cuántas personas tuviste relaciones sexuales en los últimos tres meses.*		¿Con cuántas de estas parejas has usado siempre un condón? *Por favor en el círculo marca con una "x", indicando con cuántas de estas personas siempre usabas condones.* *Por ejemplo:* *Siempre usaba un condón* **x** *No siempre usaba un condón* ○								¿Cuántas de estas parejas eran turistas? *Por favor en el círculo marca con una "x" cuántas de estas personas eran turistas.*							
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
__ ninguna																	
__ 1 pareja	→	○								○							
__ 2 parejas	→	○	○							○	○						
__ 3 parejas	→	○	○	○						○	○	○					
__ 4 parejas	→	○	○	○	○					○	○	○	○				
__ 5 parejas	→	○	○	○	○	○				○	○	○	○	○			
__ 6 parejas	→	○	○	○	○	○	○			○	○	○	○	○	○		
__ 7 parejas	→	○	○	○	○	○	○	○		○	○	○	○	○	○	○	
__ 8 o más parejas	→	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Muchas gracias por llenar este cuestionario

QUESTIONNAIRE

Aim of this research

- This questionnaire deals with the public opinion about safe sex.

How to fill in the questionnaire

- Please encircle the number that reflects your opinion most accurately.
- Please note that no incorrect or false answers can be given, since your answers reflect your personal opinion.

Be assured that your responses will remain anonymous.

Demographic information

What is your sex? □ Male □ Female

How old are you? _____ years

What is your nationality? _____

How many years do you live in the Dominican Republic? _____ years

What kind of education did you complete until now?

□ primary
□ secundary
□ university
□ other

How many years of education did you complete until now? _____years

Do you work? □ yes □ no

What kind of work do you do? _____

Do you work in the tourism industry? □ yes □ no

What is your marital status?

□ single
□ boyfriend/ girlfriend
□ married
□ divorced
□ widowed

The questions on this page and the following page concern characteristics that represent a typical person who has sex with or without condom. If you think a characteristic don't match to this type of person, encircle the number 1, and if you think this characteristic perfectly match to this type of person encircle number 7.

Answer each question by selecting one of the following alternatives:

1. no, not at all
2. no
3. very little
4. little
5. enough
6. yes, appropriate
7. yes, very appropriate

Can you indicate to what extent you think the attributes mentioned below fit somebody at your age that has unsafe sex (without condom)?
A person in my age who has sex without protection is…

	no, not at all	**no**	**very little**	**little**	**enough**	**yes, appropriate**	**yes,very appropriate**
clever, intelligent	1	2	3	4	5	6	7
messy	1	2	3	4	5	6	7
popular	1	2	3	4	5	6	7
immature	1	2	3	4	5	6	7
cool, calm	1	2	3	4	5	6	7
self-confident	1	2	3	4	5	6	7
independent	1	2	3	4	5	6	7
careless	1	2	3	4	5	6	7
attractive	1	2	3	4	5	6	7
boring	1	2	3	4	5	6	7
careful	1	2	3	4	5	6	7
egoistic	1	2	3	4	5	6	7
reasonable, sensible	1	2	3	4	5	6	7
properly clothed	1	2	3	4	5	6	7
friendly	1	2	3	4	5	6	7
young	1	2	3	4	5	6	7
stupid	1	2	3	4	5	6	7
timid, afraid	1	2	3	4	5	6	7
thoughtful	1	2	3	4	5	6	7
indifferent	1	2	3	4	5	6	7

To what extent do you think you resemble this type of person?

no, absolutely not						**yes, completely**
1	2	3	4	5	6	7

Can you indicate how often you think about this type of person?

never						**very often**
1	2	3	4	5	6	7

Can you indicate to what extent you think this type of person is attractive?

not attractive at all						**yes, very attractive**
1	2	3	4	5	6	7

Can you indicate to what extent you think the attributes mentioned below fit somebody at your age that has safe sex (with condom)? A person in my age who has sex with protection is…

	no, not at all	**no**	**very little**	**little**	**enough**	**yes, appropriate**	**yes,very appropriate**
clever, intelligent	1	2	3	4	5	6	7
messy	1	2	3	4	5	6	7
popular	1	2	3	4	5	6	7
immature	1	2	3	4	5	6	7
cool, calm	1	2	3	4	5	6	7
self-confident	1	2	3	4	5	6	7
independent	1	2	3	4	5	6	7
careless	1	2	3	4	5	6	7
attractive	1	2	3	4	5	6	7
boring	1	2	3	4	5	6	7
careful	1	2	3	4	5	6	7
egoistic	1	2	3	4	5	6	7
reasonable, sensible	1	2	3	4	5	6	7
properly clothed	1	2	3	4	5	6	7
friendly	1	2	3	4	5	6	7
young	1	2	3	4	5	6	7
stupid	1	2	3	4	5	6	7
timid, afraid	1	2	3	4	5	6	7
thoughtful	1	2	3	4	5	6	7
indifferent	1	2	3	4	5	6	7

To what extent do you think you resemble this type of person?

no, absolutely not						**yes, completely**
1	2	3	4	5	6	7

Can you indicate how often you think about this type of person?

never						**very often**
1	2	3	4	5	6	7

Can you indicate to what extent you think this type of person is attractive?

not attractive at all						**yes, very attractive**
1	2	3	4	5	6	7

Imagine you have a date with a boy or girl in your age and this person wants to have sex with you. You both don't have a condom with you. How likely is it in this situation that you...

a) don't have sex?

very improbable						**very probable**
1	2	3	4	5	6	7

b) anyway have sex without condom?

very improbable						**very probable**
1	2	3	4	5	6	7

Answer each question by selecting one of the following alternatives

1. completely disagree
2. disagree
3. neutral
4. agree
5. completely agree

		Completely disagree	Disagree	Neutral	Agree	Completely agree
1.	Having sexual relations using condoms is less romantic	1	2	3	4	5
2.	Having sexual relations using condoms is less pleasurable	1	2	3	4	5
3.	Using condoms is an annoying interruption	1	2	3	4	5
4.	Using condoms will reduce my partner`s sexual pleasure	1	2	3	4	5
5.	Using condoms will reduce my sexual pleasure	1	2	3	4	5
6.	Using condoms makes sex difficult	1	2	3	4	5
7.	Using condoms makes sex embarrassing	1	2	3	4	5
8.	Using condoms will give my partner the impression that I sleep around	1	2	3	4	5
9.	If I propose that we use a condom my boyfriend/girlfriend will get the impression that I do not trust him/her	1	2	3	4	5
10.	Using condoms evoke resistance by my boyfriend/girlfriend	1	2	3	4	5
11.	I think condoms are expensive	1	2	3	4	5
12.	My current sexual partner thinks that we should use condoms	1	2	3	4	5
13.	I care about the opinion of my current sexual partner	1	2	3	4	5
14.	My friends think that I should use condoms	1	2	3	4	5
15.	I care about the opinion of my friends	1	2	3	4	5
16.	My doctor recommends using condoms	1	2	3	4	5
17.	I care about the opinion of my doctor	1	2	3	4	5
18.	My mother thinks that I should use condoms	1	2	3	4	5
19.	I care about the opinion of my mother	1	2	3	4	5
20.	My father thinks that I should use condoms	1	2	3	4	5
21.	I care about the opinion of my father	1	2	3	4	5

		Completely disagree	Disagree	Neutral	Agree	Completely agree
22.	Using or not using condoms totally depends on me	1	2	3	4	5
23.	I have a lot of personal control concerning the use of condoms	1	2	3	4	5
24.	Using condoms protects me from being infected with HIV	1	2	3	4	5
25.	Using condoms protects me against other STD's (sexually transmitted diseases)	1	2	3	4	5
26.	Using condoms protects me from becoming pregnant	1	2	3	4	5
27.	It is difficult for me to talk about condoms	1	2	3	4	5
28.	It is difficult for me interrupting sex to put a condom on	1	2	3	4	5
29.	I think it is difficult to use condoms	1	2	3	4	5
30.	I am able to talk about safe sex with my boyfriend/girlfriend	1	2	3	4	5
31.	I am able to ask my boyfriend/girlfriend about his/her sexual history	1	2	3	4	5
32.	I am able to talk about safe sex with my mother	1	2	3	4	5
33.	I am able to talk about safe sex with my father	1	2	3	4	5
34.	I am able to ask my mother about how to use a condom	1	2	3	4	5
35.	I am able to ask my father about how to use a condom	1	2	3	4	5
36.	It is difficult to plan the use of condoms in advance	1	2	3	4	5
37.	I am afraid giving a bad impression on my partner suggesting to use a condom	1	2	3	4	5
38.	My partner gets angry if I propose using a condom	1	2	3	4	5
39.	In the future I will always use a condom	1	2	3	4	5
40.	In the future I will not have sex if it is not possible to use a condom	1	2	3	4	5
41.	In the future I will demand the use of a condom, even if my partner does not want to use it	1	2	3	4	5
42.	If my partner does not want to use a condom, I adapt to his/her wish	1	2	3	4	5

	Completely disagree	Disagree	Neutral	Agree	Completely agree
43. If my partner does not want to use a condom, I try to convince him/her to use a condom	1	2	3	4	5
44. People who have AIDS are dirty	1	2	3	4	5
45. People who have AIDS are cursed	1	2	3	4	5
46. People who have AIDS cannot be trusted	1	2	3	4	5
47. People who have AIDS are like everybody else	1	2	3	4	5
48. People who have AIDS should be ashamed	1	2	3	4	5
49. People who have AIDS have nothing to feel guilty about	1	2	3	4	5
50. Most people become HIV positive by being weak or foolish	1	2	3	4	5
51. It is safe for people who have AIDS to work with children	1	2	3	4	5
52. People who have AIDS must expect some restrictions on their freedom	1	2	3	4	5
53. A person with AIDS must have done something wrong and deserves to be punished	1	2	3	4	5
54. People who have AIDS should be isolated	1	2	3	4	5
55. I do not want to be friends with someone who has AIDS	1	2	3	4	5
56. People who have AIDS should not be allowed to work	1	2	3	4	5
57. I would not accept a person with HIV/AIDS within my family	1	2	3	4	5
58. I do not want to be in the same circle of friends than a person with HIV/AIDS.	1	2	3	4	5
59. People with HIV should be ashamed of themselves	1	2	3	4	5
60. The majority of the people infected with HIV/AIDS are stupid and foolish	1	2	3	4	5
61. Most of all people infected with HIV are self responsible for their sickness	1	2	3	4	5

Be assured that your responses will remain anonymous.

	yes	no
Did you use a condom the last time you had sex?	1	2
Did you *ever pay* money or other survival needs for sex?	1	2
Did you ever receive money or other survival needs for sex?	1	2
Did you ever inject drugs?	1	2
Did you ever have an injection drug using sex partner?	1	2
Did you ever have an episode of a sexually transmitted disease?	1	2
Do you know someone who is HIV positive?	1	2
Did you ever have physical contact with a person who is infected?	1	2
Do you have friends/ a friend who is infected with HIV/AIDS?	1	2
People who test HIV positive should hide it from others	1	2
I am concerned that I could get AIDS	1	2
AIDS is caused by HIV	1	2
Someone infected with HIV will get AIDS within 3 months	1	2
Someone who looks healthy can already be infected with HIV	1	2
Someone who is infected with HIV but does not yet have full-blown AIDS can transfer HIV through sexual contact.	1	2
Did you ever make a HIV test?	1	2
If yes, how often did you make a HIV-test?	_____ times	

With how many partners did you have sex in the last three month? *Please mark with an "x", how many partners you have had.*		With how many of these partners did you always use a condom? *Subsequently mark the circles with an "x", with which partners you always used a condom.* *For example:* *I always used a condom* **x** *I did not always used a condom* ○								How many of these partners were tourists? *Subsequently mark the circles of the sex partners, who were tourists.*							
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
__ none																	
__ 1 partner	→	○								○							
__ 2 partner	→	○	○							○	○						
__ 3 partner	→	○	○	○						○	○	○					
__ 4 partner	→	○	○	○	○					○	○	○	○				
__ 5 partner	→	○	○	○	○	○				○	○	○	○	○			
__ 6 partner	→	○	○	○	○	○	○			○	○	○	○	○	○		
__ 7 partner	→	○	○	○	○	○	○	○		○	○	○	○	○	○	○	
__ 8 or more partner	→	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Thank you very much for filling in this questionnaire