

Understanding successful condom use in the Dominican Republic

Sandra G. Garcia, Sc.D.
Lisa Goldman, MPH

Population Council, Regional Office
for Latin America and the Caribbean

This study was funded by the US AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID) under the terms of the Frontiers in Reproductive Health Cooperative Agreement Number No. HRN-A-00-98-00012-00 and in-house project no. 5800.13054. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

SUMMARY

Despite the importance of the male condom in the prevention of sexually transmitted infections (STIs), including HIV, male condom use remains relatively low among adults of reproductive age in most countries of the world (Gardner *et al.* 1999). The factors that influence the consistent and correct use of male condoms are not well understood. Past studies on the use of the male condom have primarily focused on the barriers, which impede successful condom use (Gardner *et al.* 1999).

This study took a fresh approach to understanding the factors and conditions that influence condom use in the Dominican Republic. Rather than focusing on the barriers that impede successful condom use, as past studies have, we instead explored the behavior of individuals who are successful at using male condoms and the factors that facilitate their use. Specifically, we explored successful users' beliefs about condoms and condom use, the factors that led successful condom users to initially adopt and to continue using condoms, and finally, the conditions that influence successful condom users' ability to use condoms consistently and correctly.

We identified successful condom users in three populations in Santo Domingo (sex workers and their clients, factory workers, and university students) using a screening questionnaire. We then invited individuals who met our successful condom user criteria to participate in focus group discussions about their use of condoms. In total we held fifteen focus groups; five in each study population.

Successful condom users had a variety of strategies to motivate their partners to use condoms. These included talking with their partners beforehand about condom use, using health and safety arguments to convince partners to use condoms, eroticizing condoms, and carrying their own supply of condoms. Successful condom users also tended to have positive opinions about the personal benefits of condoms including that they promote personal hygiene, can make a relationship more relaxing and enjoyable because the partners are less worried about contracting infections or having a pregnancy, and can make both partners feel more secure.

The positive aspects of condoms and the strategies for condom success employed by the successful condom users in this study could inform public education campaigns and help to generate messages that motivate the adoption of consistent condom usage. For example, many of the strategies and opinions of sex workers, who have substantial experience negotiating condom use, might be relevant to other population groups who have less experience with condoms.

CONTENTS

Acknowledgments.....	ii
Background.....	1
Statement of the problem.....	1
Study methodology.....	2
Major findings.....	6
Utilization of results.....	19
Conclusions and recommendations.....	20
References.....	23

ACKNOWLEDGMENTS

We would like to thank our study collaborators at Centro de Orientación e Investigación Integral (COIN) and Profamilia for their hard work in organizing and carrying out the fieldwork for this study. We are especially grateful to our co-investigators, Francisca Ferreira and Luis Moreno at COIN, and Frank Cáceres at Profamilia. We would also like to thank David Lusk from the USAID office in the Dominican Republic, and Elba Mercado, formerly of the USAID DR office, for their assistance in facilitating study monitoring visits, as well as Ann Lion-Coleman and Tito Coleman for their hospitality and advice during our initial visits to the Dominican Republic.

We wish to thank Jeff Spieler at USAID Washington for his interest in this study, for his substantive comments on initial drafts of our study proposal, and for his helpful suggestions on fundraising for a second study site (Ciudad Juarez, Mexico). We also thank Harris Soloman, who over this past year has helped represent our study at technical advisory group meetings of the USAID Inter-agency Gender Working Group.

For the preparation of this report we would like to thank Michelle Firestone, a Population Council intern and master's candidate at Johns Hopkins University School of Public Health for her assistance with the analysis, as well as Dr. Charlotte Ellertson of Ibis Reproductive Health and Deanna Kerrigan of Johns Hopkins University, for reviewing this report. We are grateful to Ricardo Vernon, the Latin America Director of the Population Council's FRONTIERS Program, for his feedback on the draft of this report.

Finally, we are especially grateful to Davida Becker, a former project coordinator at the Council's LAC Regional office (and current doctoral student at John's Hopkins University) for her assistance in implementing and monitoring this study.

BACKGROUND

Despite the importance of the male condom in the prevention of sexually transmitted infections (STIs), including HIV, male condom use remains relatively low among adults of reproductive age in most countries of the world (Gardner, *et al.* 1999). The factors that influence the consistent and correct use of male condoms are not well understood. Past studies on the use of the male condom have primarily focused on the barriers, which impede successful condom use (Gardner, *et al.* 1999).

This study, a collaborative research project carried out by the Population Council's Regional Office for Latin America and the Caribbean and two local NGOs in the Dominican Republic, Centro de Orientación e Investigación Integral (COIN) and Profamilia (the local International Planned Parenthood Federation affiliate), aimed to better understand successful condom use in the Dominican Republic from the perspective of individuals who are successful condom users. We explored the factors that influence and motivate these individuals to use condoms successfully, as well as their beliefs about condoms.

We carried out our study in Santo Domingo, Dominican Republic, in three different populations: sex workers and their clients, factory workers, and university students. By including three groups with different characteristics in our study, we were able to examine variations in the definitions of successful condom use and differences in past experiences with condoms.

Our local collaborators, COIN and Profamilia, were responsible for coordinating and managing the fieldwork for the study, in addition to helping us develop and pilot test study instruments. COIN was responsible for the fieldwork in the sex worker and factory worker populations, while Profamilia was responsible for the fieldwork in the university student population.

STATEMENT OF THE PROBLEM

Sexually Transmitted Infections (STIs), including HIV, account for a large burden of disease for men and women worldwide (World Bank 1993). In the Latin American and Caribbean (LAC) region, 34 million new cases of curable STIs appeared among adults in mid-1995 (World Bank 1993). The Caribbean region has the highest infection rate from HIV outside of Africa. According to current estimates, there are half a million people with HIV in the Caribbean (UNAIDS 2002; Gonzalez 2003). Chronic STIs can pose long-term health problems for women and men including pelvic inflammatory disease, infertility, ectopic pregnancy, cervical neoplasias, and in the case of syphilis, blindness and neurological disorders (Holmes, *et al.* 1999).

In the absence of cures and/or vaccines for STIs, the correct and consistent use of condoms is the most important STI prevention strategy. Despite the potential of condoms to greatly reduce the morbidity and mortality associated with STIs, levels of condom use remain low worldwide (Gardner, *et al.* 1999). For example, in the LAC region, recent nationally representative surveys with women of reproductive age found percentages of reported current condom use of 1.2% in the Dominican Republic and 2.7% in Ecuador (CESPDEM 1997; CEPAR 2001).

The low levels of condom use are not due to a lack of information, as national surveys worldwide have found high levels of awareness of male condoms (Gardner, *et al.* 1999). Rather, the consistent use of condoms is affected by various social and contextual factors including the nature of partnerships, power dynamics, communication, and cultural beliefs.

Numerous studies have investigated the barriers that impede the effective and consistent use of condoms. These studies have found that condom use is negatively influenced by social norms that encourage sexual risk taking, traditional gender roles that limit women's and men's ability to talk about condoms or to request that their partner use a condom, and finally, misconceptions and negative attitudes about condoms (Gardner, *et al.* 1999).

This study took a fresh approach to understanding the factors and conditions that influence male condom usage. Rather than focusing on the barriers that impede successful condom use, as past studies have, we explored the behavior of individuals who are successful at using condoms and the factors that facilitate their use. Specifically, we explored successful condom users' beliefs about condoms and condom use, the factors that led successful condom users to initially adopt and to continue using condoms, and finally, the conditions that influence successful condom users' ability to use condoms consistently and correctly.

We chose to explore these concepts by conducting focus groups among three distinct study populations in Santo Domingo, Dominican Republic: university students, factory workers, and sex workers. We invited both male and female university students and factory workers to participate. Among sex workers, we only conducted our study among women, but we also carried out a few focus groups with their male clients.

STUDY METHODOLOGY

Study aims

The study sought to answer the following key questions:

1. Among successful condom users, how is successful condom use defined? Does the concept of successful condom use differ by type of partner or by situation?
2. Are there social, demographic or attitudinal characteristics, which make successful condom users different from non-successful condom users?
3. What are the key factors or beliefs that lead successful condom users to adopt the consistent and correct use of condoms?
4. What types of attitudes do successful condom users hold about condoms?
5. Are there lessons we can learn from successful condom users that might be useful for public educational campaigns and programs promoting condom use?

Definitions of successful condom use – challenges of measurement

The concept of “successful” condom use poses a challenge to the research community, since there is no single universally accepted concept, which defines “successful” use. For example, should successful condom use be a continuous measure of consistent or frequent condom use? Or rather,

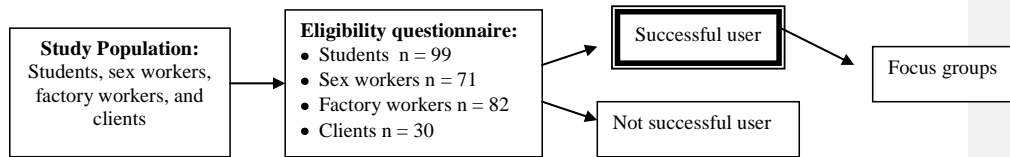
should it be an all-or-nothing concept, depending on whether or not a person uses condoms in 100% of their sexual encounters? Individuals themselves may also differ in the ways they define or understand “successful” condom use. While researchers may choose to define “successful” condom use for example, as “using condoms with *all* partners, (primary and secondary partners), in 90% or more of all acts of vaginal or anal intercourse, in the last six months,” perhaps an individual who uses condoms 100% of the time with secondary partners and never with a primary partner, may regard him/herself as a “successful” condom user. Indeed, the majority of studies have measured condom use behavior through self-reporting of consistent condom use, an approach that has proven to be inconsistent and unreliable (Weir, S. *et al.* and Zenilman, J. *et al.*).

If one superimposes onto these considerations other factors, for example, that many individuals have sex with multiple partners, that condom use is not usually a unilateral decision but rather one that requires some degree of inter-partner negotiation or collaboration, and that many individuals use condoms for contraceptive rather than disease prevention purposes, then the concept of “successful” use becomes quite murky. Thinking through possible definitions of “successful” or “unsuccessful” condom users, underscores the importance of adequately understanding the context. For this study, therefore, we did not limit our definition of successful condom users to a quantitative variable depending primarily on frequency of use and type of partner. Rather, in close collaboration with our field partners, we developed and implemented a broad-based set of minimum criteria necessary to be considered a successful condom user. Our working definition included some minimum measure of condom use frequency, but more importantly, our criteria also factored in positive opinions, attitudes and feelings about condoms.

Identification of study participants

To identify successful condom users, we used a brief screening questionnaire, containing a 75-point scale (see Appendix A), that asked participants to respond to statements regarding condom use, attitudes towards condoms, positive and negative experiences with condoms, and beliefs about condoms. In the eligibility questionnaire, we included several questions from the Sexual Relationship Power Scale (SRPS) (Pulerwitz *et al.*, 2002), in addition to basic screening questions, such as whether participants are sexually active and whether participants have ever used condoms. We also modified a barrier to condom use scale developed by Adegbeniga Sunmola in Nigeria (Sunmola, 2001). In addition, we included two questions, which ask participants to state how frequently they have certain experiences with condoms (for example, condom slippage and breakage) and how much they agree or disagree with statements about condoms (for example, the benefits of condoms, and the interference of condoms in the enjoyment of sex). To develop the questionnaire, we reviewed the literature on condom use and sexual behavior, and consulted with various colleagues and local study collaborators. Local collaborators pilot tested all instruments prior to beginning fieldwork.

A team of interviewers went to the different study sites (a local university, several factories, and several bars and sex worker establishments) to screen for eligible study participants using the brief questionnaire. Individuals who scored over half the points possible on the scale questions (38 points) and who met all other basic criteria were considered eligible successful condom users, and then were invited to participate in focus groups to be conducted at a later date.



The eligibility questionnaire identified a total of 111 potential focus group participants across all study populations. Of these, 90 ultimately accepted the invitation to participate in the focus group discussions. In each population we carried out five focus groups, three groups with women and two groups with men. In the factory worker population, we focused only on blue-collar workers rather than including management as well. In the sex worker population, we elected to focus on female sex workers and regular male clients, rather than female and male sex workers, or female sex workers and their non-client partners. Regular clients of female sex workers are a population that our field collaborator COIN has worked with in the past and are comparatively easier to reach than these other populations. The focus groups with the sex workers, sex workers' clients and university students were held on site at the offices of local collaborators. In the factory worker population, the focus groups were held after work in meeting rooms at the factories.

Informed consent

Before participants filled out our screening questionnaire or participated in the focus group discussions, we sought their written informed consent to participate in the study.

Data analysis

Eligibility questionnaire: We performed preliminary frequencies on the main demographic variables as well as sexual behavior and condom use variables using SPSS. [One of the main study questions](#) was to explore the demographic differences between successful and non-successful condom users.

Focus groups: [Successful condom users identified during the interviews were invited to participate in a total of 15 focus group discussions; the breakdown by sex and study group of the focus group discussions is shown in Table 1.](#)

[Table 1. Number of focus groups by sex and study group](#)

	University students	Sex workers	Factory workers	Clients
Women	3 focus groups	3 focus groups	3 focus groups	0 focus groups
Men	2 focus groups	0 focus groups	2 focus groups	2 focus groups

After the initial reading and discussion of first impressions, the following set of themes emerged from the data and were used for further classification and coding:

Code	Explanation
DEFINE	How do participants define successful condom use?
REASON	What reasons participants identified for condom use?
OPINION +	Positive opinions of condom use
OPINION-	Negative opinions of condom use
STRATEGY	How do participants convince their partners to use condoms?
EXPERIENCE +	Positive experiences using condoms
EXPERIENCE -	Negative experiences using condoms
FACILITATES USE	What factors facilitate condom use?
BARRIERS TO USE	What are the barriers to condom use?
IDEAS	Ideas for positive campaigns

Following the first round of coding, the three investigators met to compare and discuss findings. During this coding exercise and subsequent analysis, each investigator summarized results for each transcript, pulling out exemplary quotes and salient themes for each code. All three investigators remained in constant communication with each other so as to facilitate comparisons and capitalize on this iterative process of data analysis. Since each investigator was responsible for a particular study population, we conducted analysis across the three study groups: university students, sex workers and factory workers. In addition, the investigators assigned to the students and factory worker groups analyzed data separately for men and women.

MAJOR FINDINGS

Eligibility questionnaire – socio-demographic and behavioral characteristics

Overall, we conducted 99 interviews with students, 71 with sex workers, 82 with factory workers and 30 with clients of sex workers. As mentioned in the methodology section, we are not reporting results from the clients of sex workers population here. The following tables represent preliminary, descriptive demographic data. Statistics displayed in each of the tables correspond to all individuals who were identified as successful condom users among each of the three populations.

Table 2+ presents the general socio-demographic data of the university students, sex workers and factory workers. Students and sex workers were mostly young, with approximately 93% and 78% age 28 or younger, respectively, while there was a more even age distribution among factory workers. In all three groups the majority of participants were unmarried (single), however, in the factory worker group a higher percentage of participants were living in union or married. As expected, the majority of students were nulliparous, while the majority of sex workers and factory workers had one or more children. Finding a suitable and comparable indicator of socio-economic status (SES) for all three study groups was quite difficult. Based on feedback from field collaborators, we used owning a car or a house as an indicator of socio-economic status. A little over half (53%) of the students reported that someone in their household owned a car, and

over half of sex workers (69%) and factory workers (54%) reported that they did not own their homes¹. The majority of all three groups had lived in Santo Domingo their whole lives.

¹ In the end we feel that this was not a useful variable to measure SES. The household owning a car and owning a home are difficult to compare and do not necessarily accurately reflect SES.

Table 21. Selected demographics of university students, female sex workers and factory workers*

Characteristic	University students n = 99 n (%)	Sex workers n = 71 n (%)	Factory workers n = 82 n (%)
Sex			
Male	47 (47.5)	0 (0)	31 (37.8)
Female	52 (52.5)	69 (97.2)	49 (59.8)
Age			
17-22	44 (44.4)	29 (40.8)	20 (24.4)
23-28	48 (48.5)	27 (38.6)	29 (35.4)
29-34	5 (5.1)	9 (12.7)	21 (25.6)
≥35	1 (1.0)	5 (7.0)	12 (14.6)
Education**			
None	NA	3 (4.2)	0 (0)
Incomplete primary	NA	31 (43.7)	5 (6.1)
Complete primary	NA	11 (15.5)	16 (19.5)
Incomplete secondary	NA	20 (28.2)	28 (34.1)
Complete secondary	NA	5 (7.0)	15 (18.3)
Technical school	NA	0 (0)	6 (7.3)
Incomplete high school	NA	0 (0)	5 (6.1)
Complete high school	NA	0 (0)	7 (8.5)
Marital Status			
Single	69 (69.7)	47 (66.2)	41 (50.0)
Living as married	15 (15.2)	19 (26.8)	31 (37.8)
Married	11 (11.1)	4 (5.6)	6 (7.3)
Separated	1 (1.0)	0 (0)	3 (3.7)
Divorced	1 (1.0)	0 (0)	1 (1.2)
Widowed	2 (2.0)	0 (0)	0 (0)
Children			
0	71 (71.7)	4 (5.6)	19 (23.2)
1	17 (17.2)	25 (35.2)	24 (29.3)
≥ 2	7 (7.1)	41 (57.7)	38 (46.3)
Religion			
Catholic	50 (50.5)	8 (11.4)	46 (56.1)
None	37 (37.4)	42 (60.0)	23 (28.0)
Other	10 (10.1)	2 (2.9)	9 (11.0)
Living situation			
With parents	51 (51.5)	17 (23.9)	27 (32.9)
With partner	14 (14.1)	15 (21.1)	38 (46.3)
Alone	7 (7.1)	20 (28.2)	11 (13.4)
With other family members	15 (15.2)	17 (23.9)	6 (7.3)
With friends	7 (7.1)	1 (1.4)	0 (0)
Other	5 (5.1)	0 (0)	0 (0)

Table 24. Continued

Characteristic	University students n = 99 n (%)	Sex workers n = 71 n (%)	Factory workers n = 82 n (%)
Owns car / owns house***			
Yes	53 (53.5)	49 (28.2)	38 (46.3)
No	46 (46.5)	20 (69.0)	44 (53.7)
Years lived in Santo Domingo			
< 1 year	3 (3.0)	4 (5.6)	2 (2.4)
1-5 years	16 (16.2)	10 (14.1)	4 (4.9)
> 5 years	12 (12.1)	27 (38.0)	14 (17.1)
Always	68 (68.7)	29 (40.8)	62 (75.6)

* All percentages may not add up to 100 due to missing values

** Not applicable because all participants were university students

*** For students we asked if anyone in their household owned a car, and for sex workers and factory workers we asked if they owned their own home

Preliminary data on sexual behavior and condom use are presented in Tables 3 and 4. We asked similar questions of students and factory workers and therefore grouped their answers together in Table 32 and reported results by sex. Sex workers responded to a set of different questions and their answers are reported in a separate table (Table 43). Similar percentages of students and factory workers have ever had sex, ever used a condom, and had sex within the last six months (Table 32). Among students, 29% of female students and 21% of male students reported that they always use condoms, while 33% of female factory workers and 27% of male factory workers reported that they *never* use condoms. For both students and factory workers, pregnancy prevention and protection against STIs were the two most important reasons for condom use. However, among the students, 27% of women and 30% of men reported that they used condoms because they “felt more secure,” while only one male factory worker felt this way.

As seen in table 4, sex workers use condoms often with clients and less frequently with their non-clients. For clients, sex workers cite many reasons for using condoms; 50% or more reported that they use condoms for pregnancy prevention, to avoid STIs, because they like to use them, to feel more secure, at the client’s request and to gain the confidence of a client.

Table 32. Sexual behavior and condom use for university students and factory workers

Characteristic	University students n = 99*		Factory workers n = 82*	
	Women n = 52 n (%)	Men n = 47 n (%)	Women n = 49 n (%)	Men n = 31 n (%)
Ever had sex				
Yes	46 (88.5)	35 (74.5)	47 (95.9)	27 (87.1)
No	2 (3.8)	5 (10.6)	1 (2.0)	1 (3.2)
Ever used condoms				
Yes	42 (80.8)	28 (59.6)	25 (51.0)	30 (96.8)
No	4 (7.7)	14 (29.8)	13 (26.5)	0 (0)
Had sex in last 6 months				
Yes	47 (90.4)	33 (70.2)	38 (77.6)	30 (96.8)
No	2 (3.8)	9 (19.1)	9 (18.4)	0 (0)
Any condom use in last 6 months				
Yes	37 (71.2)	27 (57.4)	15 (30.6)	28 (90.3)
No	7 (13.5)	15 (31.9)	23 (46.9)	2 (6.5)
Number of sex partners in last 6 months				
1-2	45 (86.5)	27 (57.4)	37 (75.5)	20 (64.5)
3-4	2 (3.8)	8 (17.0)	0 (0)	7 (22.6)
≥ 5	0 (0)	6 (12.8)	0 (0)	3 (9.7)
Frequency of condom use				
Always	15 (28.8)	10 (21.3)	6 (12.2)	5 (16.1)
Almost always	9 (17.3)	9 (19.1)	2 (4.1)	9 (29.0)
Frequently	7 (13.5)	5 (10.6)	4 (8.2)	3 (9.7)
Every once in a while	7 (13.5)	7 (14.9)	10 (20.4)	6 (19.4)
Never	7 (13.5)	11 (23.4)	16 (32.7)	7 (22.6)
Reason for condom use				
Pregnancy prevention	32 (61.5)	27 (57.4)	16 (32.7)	12 (38.7)
HIV/AIDS prevention	21 (40.4)	30 (63.8)	8 (16.3)	17 (54.8)
Hygiene	5 (9.6)	5 (10.6)	4 (8.2)	0 (0)
We like to use it	4 (7.7)	1 (2.1)	0 (0)	0 (0)
I feel more secure	14 (26.9)	14 (29.8)	0 (0)	1 (3.2)
My partner wants to	2 (3.8)	5 (10.6)	1 (2.0)	1 (3.2)

* Sex information missing for multiple participants due to non-response or because question did not apply. Percentages calculated based on n for each group.

Table 43. Sexual Behavior and condom use among sex workers*

Behavior	Sex workers n = 71 n (%)
Ever used condoms	
Yes	58 (81.7)
No	10 (14.1)
Frequency of condom use with clients	
Always	52 (73.2)
Almost always	0 (0)
Frequently	0 (0)
Every once in a while	0 (0)
Never	18 (25.4)
Reason for condom use with clients	
Pregnancy prevention	35 (49.3)
HIV/AIDS prevention	50 (70.4)
Hygiene	47 (66.2)
I like to use it	45 (63.4)
I feel more secure	48 (67.6)
Clients request	37 (52.1)
To gain confidence of the client	47 (66.2)
Frequency of condom use with non-clients	
Always	13 (18.3)
Almost always	2 (2.8)
Frequently	1 (1.4)
Every once in a while	0 (0)
Never	10 (14.1)
Reason for condom use with non-clients	
Pregnancy prevention	8 (11.3)
HIV/AIDS prevention	14 (19.7)
Hygiene	14 (19.7)
I feel more secure	14 (19.7)
Partner's request	12 (16.9)
Other	8 (11.3)

* Percentages may not add up to 100 due to missing values

Focus groups

Using the questionnaires of the focus group participants, we are able to describe the demographic composition of the groups, and this information is presented in Table 5 across all three study populations. However, while we had planned on being able to link individual questionnaire data (using pseudonyms) with participants' specific responses during the focus group discussions, this proved impractical in the actual field setting. The NGOs were limited to audiotapes of focus groups. Moderators, in turn, were extremely inconsistent in their use of participant pseudonyms

during the group discussions, so even this back-up method failed, making it impossible to identify what each particular participant said in the groups, as well as the characteristics of the speaker (other than sex). Nevertheless, focus group participants were largely female (64%), under 25 years of age (55%), and largely single (63%). However, nearly half (47%) had 1 or 2 children and 11% had 3 or more children.

Table 5. Demographics of focus group participants

Characteristic	Dominican Republic n = 92 n (%)
Group	
University students	43 (47)
Factory workers	32 (35)
Sex workers	17 (18)
Gender	
Male	33 (36)
Female	59 (64)
Age	
18-24	51 (55)
25-30	27 (29)
31-35	8 (9)
36-40	4 (4)
> 40	1 (1)
Marital Status	
Single	58 (63)
Living as married	25 (27)
Married	6 (7)
Separated	0 (0)
Divorced	3 (3)
Children	
None	39 (42)
1-2	43 (47)
≥ 3	10 (11)

The key findings from the qualitative data analysis are presented below.

Students

Definitions of successful condom use

Both male and female students expressed similar definitions of successful condom use. Most commonly, success was described as when the condom served its dual purpose of protecting against STIs and pregnancy. The majority of women and fewer men associated successful condom use with tranquility, cleanliness, and safety. Male students drew a connection between successful condom use and sexual satisfaction, while this was not a sentiment expressed by the female students.

“That you use it correctly and you are satisfied at the same time” (male)

“Security in all aspects” (female)

“Health and cleanliness” (female)

Reasons for condom use

Formatted

When asked what had motivated participants to use condoms, both male and female students reported that the most important reasons for condom use were to protect against unwanted pregnancy and STIs. In general, men felt that STI prevention was the most important reason for condom use, while women gave more priority to the prevention of pregnancy. The majority of male students distinguished between type of partner and reason for condom use. Men felt that prevention of pregnancy was the main goal of condom use with a regular partner, whereas STI prevention motivated condom use with casual partners. As one male student explained:

“When you have a steady partner then it [condom use] is more for pregnancy but when you go out with different people, well, it [condom use] is for infection.”

The majority of women cited additional reasons for condom use such as hygiene and lack of side effects as compared to hormonal contraceptives. As one woman stated:

“In reality, every one of them [hormonal contraceptive methods] was hurting me and I said, well, the solution is condoms and I have stuck with using them.”

Facilitators of condom use

The most common facilitators of condom use reported by both male and female students were being prepared and having a condom on hand, planning sex, and communicating with partners. One male participant explained,

“I could be a very conscientious person, I could have been very well educated but if I don’t have a condom there with me in the moment then the desire is too strong and we usually have sex without a condom. But if I have it with me I will always use it.”

In all of the focus groups, both male and female students described similar experiences when asked to comment on their sexual encounters with different types of partners. There was a division among both men and women as to whether it was easier to use a condom with a casual partner or with a steady partner. While some felt that the trust and communication they had established with regular partners made discussing condoms easier, others felt that the lack of this familiarity with casual partners made it easier to broach the topic of condom use. Other participants, however, felt that when a steady partner wanted to use a condom, it was a reflection of his or her infidelity. These differences in experience and opinion emerged among both male and female student populations.

Strategies of successful condom use

Some similarities were observed among men and women when asked to describe their tactics for ensuring condom use during sexual encounters. These strategies included refusing sex if their partner does not want to use a condom, explaining the benefits of condoms, using games, and having other types of sex besides penetration.

“Sometimes I have to convince my partners to use it – I even buy flavored condoms and promise them things – they get more excited about this.” (female)

In addition to the strategies listed above, several male students also explained that due to their own infidelity, they would convince female partners to use condoms by stressing the importance of preventing pregnancy, rather than exposing their unfaithfulness by emphasizing the need for protection against STIs.

“My girlfriend is very jealous – even if she uses the IUD, I tell her it is not totally safe (for preventing pregnancy).” (male)

Positive opinions

The overwhelming majority of male and female students felt that sex with condoms was safer, more secure and more pleasurable. Very few students felt that condoms impeded their sexual satisfaction. Many men and women reported that they felt more relaxed, calm and able to enjoy sex if they used a condom. This feeling of being protected could make the sexual relationship more relaxing and less stressful.

“If we don’t have a condom, we don’t do anything. The agony of thinking that I might be pregnant or that I might have an infection is hell. We can say that many of us are hypochondriacs; we start to have imaginary infections. One time I convinced myself that I was pregnant.” (female)

“It [putting a condom on] can be creative and in reality, putting it on can give you a lot of emotion; there is stimulation. I don’t think it (sex with a condom) is like eating a candy with the wrapper on.” (male)

Another female student recounted similar feelings of anxiety:

“We had unprotected sex, but the agony that I lived in those days, I don’t ever want to have that happen again. When I call him, I will tell him to bring a box [of condoms].”

In addition, the majority of female students voiced their positive opinions about the condom as a preferred contraceptive choice, as opposed to other hormonal methods that caused undesirable side effects.

Factory Workers

Definition of successful condom use

For both male and female factory workers, successful condom use was described as whenever the condom did not break and whenever infection was prevented. Women also defined success as when the condom did not get stuck, when pregnancy was avoided and when they felt secure and protected. Female factory workers also described successful condom use as being more hygienic.

“Each time has been successful for me because it [condom] has never broken or gotten stuck inside.” (female)

“In my case, it [successful condom use] is when the condom doesn’t break and everything ends well.” (male)

“For me, success is when one does not get sick.” (male)

“I feel secure and more hygienic [when I use condoms successfully].” (female)

Reasons for condom use

The most salient reasons for using condoms among both male and female factory workers included prevention of STIs, with an emphasis on HIV, preventing unplanned pregnancy and hygiene. When asked what motivated them to use condoms, factory workers explained:

“Everything: AIDS, pregnancy, diseases, but most of all, for protection from AIDS.” (female)

“Well, I use them [condoms] mostly for protection from diseases, but also to prevent pregnancy.” (male)

In all five focus group discussions with factory workers, protection from HIV/AIDS was listed as a strong motivator for both initial and continued condom use. Many participants were aware of the severity of HIV/AIDS, the mortality associated with the disease, and described personal experiences with friends or family who had died from AIDS. One male factory worker described his own experience:

“I knew a friend of my uncle that died of AIDS and I went to see him during his fight with the disease and his courage helped me to see what I was doing and to start using condoms.”

Lastly, participants often mentioned overall safety and security as important reasons for using condoms.

Facilitators of condom use

When asked what factors facilitate condom use, both male and female factory workers explained that having condoms with them, or knowing that they can obtain condoms where they are going, supports condom-using behavior. Most women and fewer men emphasized the importance of speaking with their partners about condoms before engaging in sexual intercourse as a means of ensuring mutual understanding and agreement. While communication can facilitate condom use, the majority of female factory workers agreed that it becomes harder to use condoms the longer you have been with your partner, meaning that condom use can be more difficult with a regular partner. Similarly, most male factory workers felt that condom use was easiest with casual partners, the women they met on the streets or at a disco.

“It is easier to use condoms with women on the street because they are always changing [partners].” (male)

One male participant did however mention that condom use was easier with his stable partner as it was a means of birth control.

Strategies for successful condom use

Female factory workers reported several strategies to convince their partners to use condoms. Some women reported that they refuse sex; others explained to their partners that if they love them, they will use a condom, and others expressed their lack of confidence in their partners' fidelity. Many also reported telling their partners about their wish to avoid pregnancy. Three female factory workers described their strategies:

“Most of the time my husband does not want to [use condoms], but I tell him that I don't have confidence in him, because you know how unfaithful men are, and finally he accepts.”

“I say to my partner, ‘if you love me, you need to put on a condom because I already have two daughters and I want to protect myself so I don't become pregnant’.....”

“At the beginning [when I request that my partner uses a condom], he reacts negatively, but I convince him telling him that he only thinks about himself and that he should also think about the children because they need him today and tomorrow.”

In both focus groups with male factory workers, participants described how they remind their partners of friends and acquaintances who have died from HIV/AIDS in order to reinforce the importance of using condoms and protecting themselves.

“Well, in my case, I give the example of women who have died from AIDS and I tell them that you have to be careful.”

Other strategies described by male informants involved taking condoms with them when they go out to the disco for example, or putting condoms in an easy location to ensure preparedness should an opportunity arise.

Positive opinions

Factory workers held many positive opinions about condom use. Several participants mentioned the security, happiness and tranquility they felt as a result of using condoms. One male factory worker made the observation:

“When you use a condom, you can make love without the fear that you are going to get sick.”

Female participants expressed their preference for condoms as a form of birth control over other methods of contraception. For example, one woman explained:

“The advantage of condoms is that they protect me from all diseases and pregnancy.”

While there were some differences of opinion, most men and women reported that condom use did not interfere with sexual satisfaction. As one female factory worker stated:

“It feels the same [with a condom]. The most important thing is to think positively and to condition your mind.”

Female Sex Workers

Definition of successful condom use

Female sex workers defined successful condom use as when they protected themselves from disease, when they avoided pregnancy and when both they and their client agreed upon using a condom. One participant also felt that using condoms successfully meant going to the doctor and feeling healthy. Several informants also described the sense of security that they acquire when using condoms. Several women explained:

“I feel secure of what I’m doing [when using a condom] and I know I won’t contract a disease from a man on the street.”

“I feel secure because after a man finishes; I can lie back and know that I am not sick.”

Reasons for condom use

The principle motivations for condom use among female sex workers were protection from disease and sexually transmitted infections including HIV/AIDS and avoidance of pregnancy. When describing their reasons for condom use, many informants expressed concern for the health of their clients in addition to their desire for self-protection. Several sex workers also listed hygiene and peace of mind as other reasons for using condoms. As one woman explained:

“When I am with a man from the street that it is not my partner, it makes me sick to think of him coming inside me.”

In addition, personal experiences with friends and family members dying from AIDS was frequently mentioned as a motivator for condom use.

Facilitators and strategies associated with successful condom use

Sex workers felt it was important to discuss condom use with both their clients and regular partners prior to engaging in sexual relations. During this dialogue with their partners sex workers would explain the importance of condoms as a means of protection and would reassure their partners that condom use would not reduce sexual satisfaction. Most female sex workers reported that condom use was easiest with their clients as opposed to stable partners. One participant described her experience:

“If I don’t know a client, I tell him before that I use condoms and I ask him, ‘Do you use condoms?’ One time I left a man lying in a hotel room and when I arrived at the reception I told them that they should open the door for the man. They asked me why and I said that he didn’t want to use a condom and they said to me ‘Congratulations.’ When I leave [the establishment] I tell [my clients] that I use condoms so that later there aren’t any problems.”

Another strategy that sex workers used to motivate their clients to use condoms was to eroticize condoms by putting them on for the client. Furthermore, putting condoms on clients rather than allowing clients to put condoms on themselves was an important practice for two reasons: personal safety and the clients’ lack of experience with condoms. As one sex worker commented:

“I put it [condom] on because you don’t know what the man has. Sometimes they pinch the condom; I feel safer if I put it on”.

Sex workers also commonly carried their own condoms to sexual encounters, rather than leaving this responsibility up to the client.

Positive opinions

There was consensus in the sex worker population that condoms do not feel any different or reduce sexual pleasure. One informant even explained that condoms have helped her to achieve an orgasm better, while another sex worker explained that sex can last longer with a condom. Other advantages of using condoms included hygiene, cleanliness, feeling secure and protected, and not having to worry about STIs and pregnancy. As an example of hygiene, one woman said:

“Now [that I use condoms] it is better because they [clients] do not get me dirty when they come.”

According to several women, using condoms has not reduced their attractiveness to clients or hindered their ability to practice sex work. As one woman explained,

“I am more loose [can sleep with more people] and flirtatious with a condom.”

What lessons can we learn from successful condom users about public education campaigns on condoms?

Participants felt that public information campaigns on condoms should mention more of the positive aspects of condoms, rather than focusing exclusively on the prevention of HIV and STIs. Particular messages that participants felt should be emphasized were that condoms can provide security, tranquility, cleanliness, and can make sex last longer. Participants also suggested linking condom use to the protection of the family. Moreover, participants generally felt that condom promotion campaigns needed to take into better account human sexual needs.

The following table summarizes the most salient ideas for condom promotion by study group:

Students	Factory workers	Sex workers
<ul style="list-style-type: none"> Promote contraceptive effect of condoms and the protection they offer from STIs in addition to HIV/AIDS 		
<ul style="list-style-type: none"> Encourage parents to talk to their children about condoms Use role models to promote condom use Include ideas about security, trust and cleanliness Install condom dispensers in bathrooms in discos and at universities Promote sexual pleasure and reduce influence of strict moral positions 	<ul style="list-style-type: none"> Use social dramas More distribution of condoms in workplace Target youth Emphasize protecting both themselves and their families Encourage people to speak more openly about condoms Encourage people to always carry condoms with them 	<ul style="list-style-type: none"> Campaigns should consist of personal testimonials Campaigns should encourage businesses to convince male clients to use condoms Messages should remind people that they are protecting themselves and their family from disease and unwanted pregnancy Tell people they can enjoy sex with condoms

UTILIZATION OF RESULTS

The investigators presented the findings from this study and the similar study in Ciudad Juarez in a poster session at the International Society for Sexually Transmitted Disease Research (ISSTD) conference in Ottawa, Canada (27-30 July 2003). In addition to this conference, we will present these findings at several other public health conferences, including the annual meeting of the American Public Health Association (APHA), where we will also attend an investigators meeting with our collaborators from the Dominican Republic and Mexico.

Now that further analysis is underway, we have begun to explore several approaches to developing manuscripts. For example, we are currently working on a combined analysis of the sex worker populations in the Dominican Republic and Mexico. An interesting comparison could also be drawn between the students and factory workers in each site, as these populations are similar in their age distribution, but possess very different educational backgrounds. Other

potential manuscript topics include a conceptual piece on defining successful condom use and a paper focusing on scale validation and the use, quality and effectiveness of our eligibility questionnaire.

At the last meeting with local collaborators, we discussed the idea of developing posters and other materials with positive condom messages. We are looking into funding this activity from other potential sources. Once the data from the Mexico site is analyzed, we hope to hold project dissemination meetings in each country with local collaborators and key stakeholders.

CONCLUSIONS AND RECOMMENDATIONS

Through the questionnaire data and qualitative content analysis of focus group data, we were able to explore the perceptions and experiences of successful condom users in three very different populations. In particular, we gained a deeper understanding of how these individuals define successful condom use, the motivations and strategies behind this behavior, and possibilities for future campaigns to inform positive decision-making around condom use. Our hope is that these results will help sensitize the research community to the need for better-suited, contextually-based definitions of successful condom use that go beyond definitions based solely upon frequency and consistency of use. We also hope that these data help to inform condom educational campaigns and programs.

Definitions of successful condom use

By using the condom use scale and the focus group methodology, we were able to explore in-depth how participants defined successful condom use. Although condom use is usually measured by frequency and/or consistency, when we asked participants to define successful condom use, very few participants mentioned frequency of use or consistency of use when defining successful condom use. Rather, focus group participants characterized successful condom use in terms of meeting their personal goals, whether it be avoiding pregnancy, STIs, or gaining a sense of security. Participants also talked about open channels of communication with their partners as facilitators of successful condom use.

Using condoms to ensure a sense of tranquility or security was highlighted both in the questionnaire and the focus groups. Although not traditionally cited as a reason for condom use, almost 30% of students and 20% of sex workers said that they used condoms because it made them “feel secure,” making this feeling the third most common reason for condom use after preventing pregnancy and STIs (questionnaire data). From the quantitative analysis alone, it was unclear whether this concept of security was closely associated with other motivations for condom use like prevention of pregnancy and STIs, or if this sentiment represented something in of itself. For example, had we not included security as a reason for condom use on the questionnaire, we might have seen higher percentages in other categories such as pregnancy and STI prevention. Yet, due to the fact that this concept emerged again during the focus group discussions among both men and women, it appears that condom use does provide individuals with an added sense of security beyond protection from infection and pregnancy. In addition, both male and female participants felt that due to this heightened sense of security they could enjoy sex more – this finding is indeed indicative of a positive aspect of condom use.

These alternative definitions of successful condom use expressed by the participants could have implications for changes in current condom promotion messages. Condom promotion, which often focuses on using condoms to prevent negative consequences (pregnancy or STIs), could be broadened to include the positive results that come from using condoms, such as ensuring security and tranquility, enjoying sex more, and protecting not only oneself but also one's family. Anecdotally, the Dominican field collaborators informed us early on that much of the educational campaigns about condom promotion were blatantly negative and depended almost exclusively on fear-based messages of the dangers of contracting HIV/STIs in order to scare people into using condoms. Our findings across three different study populations suggest that these messages should take a different approach altogether.

Motivations and strategies

During the analysis of the focus group transcripts, we looked for differences between men and women in each population, but surprisingly few contrasts emerged. Similar definitions of successful condom use arose among both men and women. Likewise, men and women described comparable reasons and motivations for using condoms, the most common being protection from STIs and avoidance of pregnancy. The facilitators of condom use were also quite similar across gender groups. Subtle differences did emerge, however, when participants were asked to discuss strategies surrounding condom use. It appeared that in each population group, men and women employed different tactics in order to ensure condom use during a sexual encounter. For example, among the students, we observed marked differences between the reasons that men and women gave to their partners to convince them to use condoms. Men often felt that their fidelity would be called into question if they suggested using condoms and thus focused on pregnancy prevention as the main reason for use. Meanwhile, women more commonly reported using erotic games, flavored condoms, or other tactics to convince their partners to use condoms.

Future educational campaigns – recommendations

We feel that the positive definitions that participants offered with regard to successful condom use should be incorporated into condom education campaigns. In addition to highlighting the personal benefits of condom use, such as protection from pregnancy and STIs, a greater sense of security, and hygiene, informants described additional positive strategies for condom promotion. Employing role models to encourage condom use, highlighting the sexual pleasure that can come from condom use, and encouraging families to talk about condom use are some of the positive messages suggested by informants in each of the three populations. Rather than emphasizing breakage and slippage or using fear tactics, future health education campaigns could adopt more positive messages such as those that emerged from this study.

Strengths and limitations

The strengths of this study lie in the application of the successful condom use scale and in the richness of the narrative we captured during the focus group discussions. The scale used to determine who were successful condom users among each of the populations successfully identified individuals with positive attitudes, ideas and behaviors regarding condom use, as was observed during the focus group discussions. Although the scale was adapted from existing scales in the literature, it is a unique instrument in that it addresses the positive aspects of condom use rather than the barriers and challenges associated with condoms. Through the focus group discussions, we were able to explore these ideas even further and gain a more meaningful perspective that cannot be captured from quantitative methodologies alone. Employing this combination of methodologies allowed us to appropriately address the research questions.

Study limitations are linked to the quality of focus group data and the moderators' abilities to capture narrative and group norms. Firstly, due to the poor quality of the focus group tapes, it was often difficult to discern what was being said and by whom, weakening the overall quality of the transcripts themselves. In addition, few non-verbal observations were made or recorded during the focus groups, creating a limited sense of group dynamics or non-verbal consensus. Finally, focus group participants were not matched up to their demographic profile, making it difficult to identify who was speaking at any given point throughout the discussion. Not being able to track respondents created a challenge when attempting to specify how many individuals expressed a certain opinion and who these individuals were in terms of their demographics. We therefore recommend that in future efforts, and with the informed consent of the participants, focus groups be recorded both with audio and video to enable improved identification of focus group participants. This of course does raise ethical dilemmas in terms of revealing identities and it may be difficult to arrange such sophisticated technical equipment in countries like the Dominican Republic where resources are limited

Conclusion

It is becoming more widely accepted among researchers that measures of condom use are extremely varied, difficult to employ, and are associated with biases and inconsistencies (Zenilman *et al*). As result, we must ask what these measures do determine, how we they should interpreted, and how valid they are in real life contexts. Combining qualitative and quantitative methodologies to explore successful condom use has allowed us fill in some of these gaps. In addition to making meaningful contributions in terms of the methodology, this study has underlined the importance of emphasizing the positive aspects of condom use and employing some of these ideas into condom promotion campaigns.

REFERENCES

- CEPAR - Centro de Estudios de Población y Desarrollo Social, Ecuador. (2001). *Ecuador Encuesta Demográfica y de Salud*. Calverton, MD: Macro Internacional Inc. DHS Program.
- CESDEM. (1997). PROFAMILIA, ONUPLAN, and Macro International, Inc. República Dominicana: Encuesta Demográfica y de Salud. Calverton, MD: Macro Internacional Inc. DHS Program.
- Gardner R, Blackburn RD, Upadhyay UD. *Closing the Condom Gap*. (1999). Population Reports, Series H (Barrier Methods), Number 9, April 1999. Baltimore: Johns Hopkins University School of Public Health, Population Information Program.
- Gonzalez D, "As AIDS ravages Caribbean, governments confront denial," *New York Times*, May 18, 2003.
- Holmes KK, Sparling PF, Mardh PA, et al. (Eds.). (1999.) *Sexually Transmitted Diseases, 3rd Edition*. New York, NY: McGraw Hill.
- Pulerwitz, J., Amaro H., De Jong W., et al. (2002). Relationship, power, condom use and HIV risk among women in the USA, *AIDS Care*, 14(6):789-800.
- Sunmola AM. Developing a scale for measuring the barriers to condom use in Nigeria. *Bulletin of the World Health Organization* 2001;79(10):926-932.
- UNAIDS. AIDS Epidemic Update 2002. Available at URL: http://www.unaids.org/worldaidsday/2002/press/update/epiupdate_en.pdf. Last accessed 17 May 2003.
- Weir, S.S., Roddy, R.E., Zekeng, L., et al. (1998). Measuring condom use: asking "do you or don't you" isn't enough. *AIDS Education and Prevention*, 10(4):293-302.
- World Bank. (1993). *World Development Report 1993: Investing in Health*. Washington, DC: World Bank.
- Zenilman, J.M., Weisman, C.S., Rompalo, A.E., et al. (1995). Condom use to prevent incident STDs: The validity of self-reported condom use. *Sexually Transmitted Diseases*, 22:15-21.

APPENDIX A

UNDERSTANDING SUCCESSFUL CONDOM USE IN MEXICO AND THE CARIBBEAN

Successful Condom User Scale

Statements	Always	Often	Sometimes	Never
Condom use causes irritation and burning after sex	0	1	2	3
The condom has ripped during sex	0	1	2	3
I feel that condoms do not prevent the fluid of my partner entering into my sexual organ	0	1	2	3
The condom has come off or slipped during sex	0	1	2	3
While putting on the condom I have or my partner has lost his/my erection	0	1	2	3
If my partner asks if we can use a condom, I think that he or she has other sexual partners	0	1	2	3
The smell of condoms is unpleasant and decreases my interest in sex	0	1	2	3
Condoms are too tight and uncomfortable	0	1	2	3

Developed by the Population Council, Regional Office for Latin America and the Caribbean

Additional statements for sex workers:

My clients have refused to use a condom	0	1	2	3
My client complains if I ask him to use a condom	0	1	2	3
My clients want to pay less if I ask that we use a condom	0	1	2	3

Total score: _____

Statements	Always	Often	Sometimes	Never
<i>Condom use doesn't impede my sexual satisfaction</i>	0	1	2	3
Condom use makes sex pleasant or fun	0	1	2	3
Condom use helps to prolong sex and to reach an orgasm easily	0	1	2	3
When I use condoms, I feel relaxed during sex	0	1	2	3
Using a condom helps me enjoy sex	0	1	2	3
I enjoy using condoms because my partner enjoys using them	0	1	2	3
It is easy to buy and to obtain condoms	0	1	2	3
Using condoms does not go against my religious beliefs	0	1	2	3
It is easy to talk with my partner about using condoms	0	1	2	3
The process of putting the condom on increases my interest in sex	0	1	2	3
Putting on the condom can be part of foreplay	0	1	2	3
Using condoms makes me feel protected against sexually transmitted infections and HIV/AIDS	0	1	2	3
Using condoms makes me feel protected against unplanned pregnancy	0	1	2	3
Using condoms makes me feel clean	0	1	2	3
I trust my partner(s) if they ask me to use a condom	0	1	2	3
I don't feel embarrassed if my friends know that I use condoms	0	1	2	3
In general, I like to use condoms	0	1	2	3

Additional statements for sex workers:

The process of putting the condom on increases sexual pleasure for my clients	0	1	2	3
It is easy to talk with my clients about using condoms	0	1	2	3
It is easy to talk with my other partners about using condoms	0	1	2	3
My clients enjoy sex when we use condoms	0	1	2	3
In general, my clients feel better if we use condoms	0	1	2	3

Total score: _____