## **ORIGINAL ARTICLE**

# Correlates of Condom Negotiation Intent: The Case of Jimma University Undergraduates<sup>\*</sup>

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#### Abstract

The study attempted to assess the relationship between condom communication variables and intention to negotiate condom use. Using structured questionnaire and FGDs, the investigator gathered data from 378 randomly selected and 25 discussants that were selected through snowball sampling respectively, from Jimma University undergraduates. Multiple regressions and content analysis were used to analyze the survey and the qualitative data respectively. The analyses indicated significant association between condom communication variables and intention to negotiate condom use. TPB's (Theory of planned behavior) original predictor variables jointly explained 30% variance on the dependent variable. Regression analyses showed that students' attitude towards discussing condom use and condom communication self-efficacy uniquely predicted intention to negotiate condom use. Further, 'verbal condom negotiation strategies' and 'giving great value to life and health', which have been developed from the qualitative data, significantly predicted intention to negotiate condom use, contributing a further 13.8 % over and above TPB's original predictor variables. The study concluded that intention to negotiate condom use is dependent on 'attitude towards discussing condom use, condom communication self-efficacy, giving great value to life and health, and verbal condom negotiation strategies. The study recommends programs that foster safer sex in college context to emphasize these variables, in participatory manner where target groups are encouraged to discuss openly, to develop their communication abilities, to appreciate their life and health, and to enhance their use of condom negotiation strategies. Furthermore, the study recommends more research on prevailing discourses of HIV/AIDS and sexuality on college students.

Key words/phrases: Condom negotiation/Ethiopia/ Jimma University/Undergraduates

<sup>\*</sup>This paper has been taken (with some modification) from a Ph.D. dissertation (2013) submitted to the School of Graduate Studies of Addis Ababa University, Department of English Language and Literature. It also has been presented on the National Research Conference (19-20 June 2015) at CSSH, Hawassa University and submitted for an informal publication on the research proceedings of the College.

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### 1. Introduction

### **1.1 Statement of the problem**

HIV has remained the major cause of death in sub-Saharan Africa (UNFPA, 2008; UNAIDS, 2011, 2012), while new HIV infection among young people is being reduced in most parts of the world (UNFPA, 2008; UNAIDS, 2011, 2012). Ethiopia is not an exception with respect to the HIV/AIDS pandemic. With an estimated 1.2 million people living with the virus at the end of 2010, it has one of the highest HIV- infected populations in the world, although the pandemic's prevalence (Adult HIV prevalence 1.5 % in 2012) is lower than many other countries (USAID, 2012). The most exposed group to HIV/AIDS lies between the ages of 15 to 24 (FMOH, 2006; USAID, 2012), which comprises one-fifth of the entire population of the country (Getinet, 2009). Most undergraduates, the focus group of this study, are in their early twenties. Compared to those with lower schooling, students from secondary or higher education are much more vulnerable and most at risk groups (FDRE, 2010; EDHS, 2011; USAID, 2012).

Though different measures have been taken in response to the problem and some encouraging outcomes have been achieved in terms of change of behavior, still there is a gap between knowledge, attitude, and practice (Firehiwot, 2006; Getinet, 2009; EDHS, 2011; UNAIDS, 2012). Risky sexual practices such as multiple sexual partnership and inconsistent use of condoms are still widely practiced (FDRE, 2010; EDHS, 2011; USAID, 2012; see Tesfaye & Hailom, 2014 a,b). To understand how to assist young people in practicing safer sex (or transferring the knowledge into safer sex practices), researchers (e.g. Lear, 1995; Sherley, 2007; Hindin & Fatusi, 2009) have considered prevention communication as one of the key tools for behavioral change.

However, prevention communication is not well informed by research. Existing research works on prevention report conflicting results. For example, while some studies (e.g. Dilorio *et al.*, 2000; Noar *et al.*, 2004; Schwarzer & Luszczynska, 2005) reported that communication self- efficacy influenced a dependent variable (e.g. condom use), other studies (e.g. Jang & Yoo, 2009) found that communication self- efficacy did not influence an outcome variable.

Research is also lacking on condom negotiation in Ethiopia. This is clearly observable in Converse et al. (2003), who reviewed over 400 publications and reports that investigated the reproductive health and awareness of HIV overall in the country, Mesfin *et al.* (2010), who updated the bibliography on HIV/AIDS in Ethiopia and Ethiopians in the Diaspora, and Getinet (2009), who reviewed studies done on sexual matters among college and rural high school students in Ethiopia. These reviews indicated a gap between knowledge and practices.

The quantitative part of Getinet's (2009) study measures the relationship between Theory of Planned Behavior (TPB) predictor variables and condom use (intention and past). According to his finding, while attitude, subjective norms, and PBC (perceived behavioral control) significantly influenced intention to use condom, only attitude and PBC influenced past condom use. However, his study did not examine the relationship between TPB (communication) variables and intention to negotiate condom use. Thus, understanding the seriousness of the HIV/AIDS problem and the existing gap with respect to data on condom negotiation, this study has been initiated to investigate condom communication variables that influence JU undergraduate students' intention to negotiate condom use.

# **1.2 Research Questions**

- 1. Is there a relationship between TPB variables (e.g. Attitude, PBC, and Subjective norm) and intention to negotiate condom use?
- 2. To what extent do TPB variables (e.g. Attitude, PBC, Subjective norm) explain college students' intention to negotiate condom use?
- 3. To what extent do external variables to TPB (e.g. 'negotiation strategies', 'giving value to life') explain college students' intent to negotiate condom use over and above TPB variables?

# **1.3 Scope of the Study**

This research is delimited to examine the relationship between TPB variables (attitude, subjective norms, and PBC) and external variables to TPB (condom negotiation strategies, value given to life and health) with intention to negotiate condom use of year one to six of Jimma University undergraduates. The reason for focusing on undergraduates is that it is this group that gets exposed to high risk sexual behavior, as has been discussed earlier.

# **1.4 Significance of the Study**

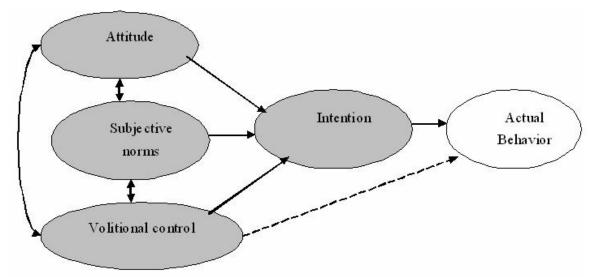
This study has a contribution to both *knowledge* and *practice* with regards to HIV prevention. The findings from this study indicate the importance of revising the Theory of Planned Behavior. The study examines TPB predictor variables and external variables to TPB that significantly and uniquely predict intention to negotiate condom use. This will have an impact in the design and development of reproductive health particularly HIV/AIDS communication materials. It would also give insights to future research in safer sex communication. In the related area, health communication has been remained less informed by research findings. In fighting the pandemic, conducting research that investigates the relationship between safer sex (e.g. condom) communication and behavioral intentions and practices is important.

# 2. Conceptual Framework

# 2.1 Predicting Intention: Attitudes, Subjective Norms, and Perceived Behavioral Control

The theory that frames this study comes from the Theory of Planned Behavior (TPB). According to the theory, people's behavioral intention can be explained by three variables: *Attitude* towards the behavior, *Subjective norms*, and *Perceived Behavioral Control* concerning the behavior (look Figure 1, below).

Attitude towards the behavior, according to Ajzen (1991), refers to the degree to which an individual has a favorable or unfavorable assessment of the behavior in question (e.g. personal evaluation that discussing condom use is desirable). In the context of communication, an individual's attitude towards communicating about a certain behavior influences his or her behavior. According to Jang and Yoo (2009), individuals may have favorable attitude towards communicating about a topic if they perceive that the benefits of discussing the topic outweigh the costs. Conversely, according to Jang and Yoo (2009), people may have unfavorable attitude towards communicating about a topic if talking would produce more negative consequences. That is to say, if people have unfavorable attitudes towards communicating about sex or condom, it may be less likely for them to attempt negotiating condom use (Elwood, Green& Carter, 2003).



*Figure2.1:* Theory of Planned Behavior. The shaded variables display the relationships to be examined in this study

*Subjective norms* (Perceived Communication Norms), according to Elwood, Green and Carter (2003), refers to the perceived social pressure to perform or not to perform the target behavior (e.g. perceived normative support for condom use). According to Hale *et al.* (2002) in Elwood, Green and Carter (2003), subjective norm is an individual's perception that important/significant others (e.g. close friends, partner) support a specific behavior. Perceived norms are important determinants of behavior. As

to Fishbein *et al.* (1993), the more one perceives social pressure to perform a behavior, the more likely one is to actually perform that behavior. As a relational partner is one of the significant others who could potentially influence people to discuss or avoid the topic, perceived partner's desire for communication may be the most important and relevant normative beliefs in the context of behavioral intention (Jang & Yoo, 2009). "In the case of condom use or communication about sex, the norms of the partner maybe more salient than in instances that are not cooperative or involving both parties (for example, starting an exercise program)" (Elwood, Green & Carter, 2003, p.280).

However, compared to attitude-intention and perceived behavioral controlintention relationships, the subjective norm-intention association is significantly weaker, according to Armitage and Conner's (2001) meta-analysis. Likewise, Rivis and Sheeran (2003) argued that intentions are influenced primarily by personal factors (attitude and perceived behavioral control). However, it has been suggested that such weak relationship between intention and subjective norm may be attributable to the narrow conceptualization of the normative component in the TPB (Sheeran , Orbell, & Abraham, 1999). That is to say, people's behavior, in addition to attitude and PBC, is influenced not only by subjective/injective norm which is concerned with perceived social pressure (i.e. what significant others think the person ought to do), but also descriptive norms (i.e., what significant others themselves do), for these are separate sources of motivation (Rivis & Sheeran, 2003). "Here, the opinions and actions of significant others provide information that people may use in deciding what to do themselves (e.g., "If everyone's doing it, then it must be a sensible thing to do" (Rivis & Sheeran, 2003, p.220).

Another major component of the TPB is *Perceived Behavioral Control* (e.g. assessments that one can use the behavior, for instance condom use, if she or he wants to). Many researchers (e.g. Ajzen, 2002; Albarraci'n *et al.*, 2006) agree that PBC influences peoples' behavioral intention.

In the context of communication, self-communication efficacy is an "individuals' perception that they possess the skills to complete successfully the communication tasks involved in the information management process" (Afifi & Weiner, 2004, p. 178). In other words, when people believe that they have the ability to successfully carry on a conversation about a particular topic, they are more likely to engage in the behavior (Jang & Yoo, 2009). "In preventing STD, Self-efficacy beliefs could refer to the ability to communicate about condom use and HIV/AIDS" (Schwarzer & Luszczynska, 2005, p. 144). This study will examine the extent to which PBC (communication self-efficacy and control) predicts intention to negotiate condom use.

In this study, the three TPB predictor variables that contribute to the prediction of a behavioral intention are attitude towards communicating about condom, communication norms regarding condom, and condom communication efficacy and control (PBC). According to Albarraci´n, McNatt, and Klein' (2003), communications will increase protection when they provoke recipients' favorable attitude towards communicating about behavioral intention, communicative norms, and perceived persuasive skill.

The forgone discussion has shown that the more positive people's attitudes and perception of subjective norms, and the greater their perceived behavioral control regarding a behavior, the more likely they intend to perform that behavior.

#### 3. Method

#### **3.1 Participants**

Three hundred seventy-eight (N = 378; 315 males and 61 females, 2 missing)<sup>3</sup> Jimma University regular undergraduates were selected using stratified random sampling, from a population of 18161(in the academic year of 2007 to 2012 or 1999 to 2004 E.C). The sample size (N = 415) was determined using sample sizes table for multiple regressions population proportion formula with the assumption of confidence level of 95%, an effect size of  $\rho 2$ .30, 5 predictor variables (Gregory et al., 2007), and 10 % allowance for non- response rate (I.e. 377 plus 38). Their proportion for each year was determined based on proportional stratified random sampling (see Appendix A, Table 3.1). Three FGD groups— two male groups (Group One, 9 and Group Two, 8 members) and one female groups (n = 8) were conducted to generate perceived condom negotiation strategies they apply to influence their main and new sex partners as well as their perception of life and health.

The average *age* and *pocket money* of the participants were 21.29 years and 314.27 Birr respectively. With respect to *year of study*, they were from - First Year, 147 (38.9 %), Second Year, 90 (23.8 %), Third Year, 93 (24.6 %), Fourth Year, 31 (8.2 %), Fifth Year, 14 (3.7%), and Sixth Year, 3 (.8 %).

As far as *Origin* is concerned, they were from Oromia (n = 205, 54.2 %), Amhara (n = 81, 21.4 %), SNNPR<sup>4</sup> (n = 54, 14.3 %), Addis Ababa (n = 20, 5.3 %), Tigray (n = 14, 3.7 %), Somewhere else (Others) (n=3, .8 %), and Diredwa (n = 1, .3 %), at descending order. Closely related to this, 166 (43.95 %) and 210 (55.6 %) were from *Urban* and *Rural*, respectively. Regarding their *living places*, while 92.3 % (n = 349) live in the University (dorm), 5.3 % (n = 20) live out of the University. Participants were affiliated to a variety of *religions* like Orthodox Christianity (n = 188, 49.7 %), Protestant Christianity (n = 102, 27.0 %), and Islam (n = 69, 18.3 %), while 3.4 % (n = 13) were affiliated to various other religions.

Of the total participants (N = 378), 202 (53.4 %) reported to be not sexually active by indicating that they never had sex. Of the remaining 176 participants, 175 (46.3 %) (153 males and 22 females) reported having ever had sex. And 152 respondents were sexually active during the last twelve months before data collection. During the past twelve months prior to data collection, while 111 (29.4 %) and 41 (10.8 %) of the participants had one and more than one sex partners respectively, 225 (59.5 %) participants had no sex partners.

During the past twelve months prior to data collection, 47 (12.4 %) Every time, 18 (4.8 %) More than half of the time, 17 (4.5 %) Half of the time, 14 (3.7 %) Less than half of the time, 28 (7.4%) At the start of the relationship only, and 29 (7.7 %) Never used condom with main partners. With recent partner, 67 (17.7 %) Every time, 12 (3.2 %) More than half of the time, 10 (2.6 %) Half of the time, 14 (3.7 %) Less than half of the time, 17 (4.5%) At the start of the relationship only, and 33 (8.7 %) Never used condom during the past twelve months prior to data collection.

<sup>&</sup>lt;sup>3</sup> 378 are properly filled and returned questionnaires.

<sup>&</sup>lt;sup>4</sup> South Nations, Nationalities, and Peoples' Region

Students who were not willing to participate in the study, who had hearing and vision problems, and those who were under 18 years were excluded from the study. The study was conducted in Jimma University from 5/03/2011 up to 11/04/2012. In this study, informed consent was obtained from all participants.

## 3.2 Materials

A questionnaire constructed based on questionnaire constructing guide (Ajzen, 2004, 2008) was used to collect attitude, subjective norm, PBC, and intention related data. The questionnaire also consists of 12 socio-demographic questions. The participants were asked to put a checkmark in the box in front of any item that would be applied to them in the coming twelve months, after the data collection. From 415 questionnaires (377 sample size plus 10% or 38 contingency), 390 were distributed. Among these 378 were properly filed and returned.

Internal reliability has been determined for the scale, and content and construct validity have been established as well. Accordingly, the dependent variable– Intention (3items, Cronbach's alpha .820, Factor load > .78)– and the predictor variables:– Attitude (4 items, Cronbach's alpha .740, Factor load > .7), Subjective Norms (6 items, Cronbach's alpha .703, Factor load > .7), PBC(5 items, Cronbach's alpha .702, Factor load > .5), Verbal condom negotiation strategies (4 items, Cronbach's alpha .724, Factor load > .5) were determined. These variables were measured on seven point (agree, disagree) scales.

The other instrument used in this study to collect qualitative data is FGD. The FGD guideline, which deals with perceived condom negotiation strategies, has been adapted from Kelly, Hood, and Brasfield (1989). It asks 8 open-ended questions (each with probes) regarding perceived strategies the participants apply to negotiate condom use with new and main partners. Reliable digital sound recorder was used to record the FGD data.

## **3.3 Procedure**

**Phase one:** First, after explaining the purpose of the study, 25 (17 male and 8 female) interested and outgoing<sup>\*</sup> respondents who were selected through snowball sampling, from the departments of English and Biology, were asked to write the perceived condom negotiation strategies they would apply if they engaged in sexual relationships with new and main partners. After that probing questions were followed in the setting of FGDs which in turn was followed by data analysis. The result of the analysis indicated striking similarities between four verbal condom negotiation strategies (from the FGD) and four of the nine strategies summarized by Noar et al. (2002). Then after, these four verbal condom negotiation strategies were incorporated in the main survey questionnaire (e.g., If my sex partner is not willing to accept condom, I will tell him/her that condom can **protect us from risks** such as unwanted pregnancy and STDs including HIV). The questionnaire was piloted on a limited number (N=128) of

<sup>\* &</sup>quot;Because of their exposure to or their experience of the phenomenon in question" (Ryan *et al.*2007, p.741).

computer science students (from first year to fourth year), who were not included in the main study.

**Phase two:** During the main study, the subjects of the survey were told that the study would investigate the relationship between condom communication and intention to negotiate condom use. They were asked to put a checkmark in the box in front of any item that would be applied to them in the next twelve months, after data collection. Following that, after the filled questionnaires were collected, data cleansing was done at the end of each working day. Data was edited, coded, and entered into a computer using Statistical Package for Social Sciences (SPSS) version 16. Written consent was taken and confidentiality was maintained.

# 3.4 The Research Design and Approach

This research is cross-sectional. Quantitative and qualitative data were collected one after the other—first the qualitative and then the quantitative. *Pearson Correlation* was used to measure the relationship between dependent and predictor variables. Hierarchical multiple regression analysis was used to see the unique effect of predictor variable on the dependent variable (at P < 0.05). In its approach it is mixed—uses both qualitative and quantitative approach.

## 4. Results

Table 4.2 below shows descriptive statistics (mean, standard deviations) and correlation between variables entered into a hierarchical regression model- Intention, Attitude, Subjective Norms, Perceived Behavioral Control, 'verbal condom negotiation strategies', and 'giving value to life and health. As the zero- order correlations show, the relationship between predictor variables is less than .7. Put differently, no evidence of multi-co linearity was found. Thus, to interpret the results of regression analysis, complying with researchers (e.g. Cohen & Cohen, 1975; Dewberry, 2004; Newton and Rudestam, 1999 in Getinet, 2009), it is appropriate to use a hierarchical regression analysis.

Variables		Mea n	Standard deviation	1	2	3	4	5	6	7
1	Intention	5.62	1.25		.326***	.366***	.529***	.246***	.546***	.594***
2	Attitude	5.19	1.43			.340***	.419***	.086*	.264***	.316***
3	Subjective norms	5.30	.96				.529***	.203***	.413***	.405***
4	PBC	4.89	.93					.307***	.560***	.559***
5	Giving value to life & health	5.91	1.44							684***
6	Verbal condom negotiatio n strategies	5.57	1.14							·

Table 4.2: Correlations among Attitude, Subjective Norms, PBC, Actual Discussionwith Friends on Condom Use, Negotiation Strategies, and Giving Value to Life andHealth

\*\*\* P < .0001

Once the zero- order correlations have been calculated, what follows is deciding the order of entry. Dewberry (2004) suggests: "variables that are considered irrelevant [less relevant] to the question being asked might be entered first so that their effect is controlled" (p.251). Hence, to assess the contribution each variable makes to the model at the point at which it is entered, in this research, the predictor variables entered in to the regression model at ascending order, in terms of their relationship strength with dependent variable. After controlling the three TPB variables, first, 'giving great value to life and health' (r = .546, P < .0001), and then 'verbal condom negotiation strategies' (r = 0.594, P < .0001) have been entered into the regression model. Below is shown the steps of the regression analysis (Table 4.3).

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Table 4.3: Summary of Regression Results by Regressing 'Intention to Negotiate Condom
use' on 'Giving Great Value to Life & Health', 'Condom Negotiation Strategies', and TPB
Variables for the Survey Participants

S t e	Variables Entered	R	R2	Adjust ed R2	R <sup>2</sup> Cha nge	Sig. F Chan ge	Beta	В	Sig. of B	95%C	V for B
p					nge	50				Low er Bou nd	Upper Boun d
	Constant							.818	.011	.186	1.451
1	Attitude	.548	.300	.295	.300	.000	.089	.077	.044	.002	.153
	Subjective- Norm, PBC						.024 .178	.031 .238	.618 .001	- .090 .092	.152 .384
2	Giving great value to life	.623	.388	.379	.079	.000	.175	.152	.002	.056	.249
3	Condom Negotiation strategies	.662	.438	.429	.050	.000	.323	.354	.000	.232	.475

Dependent variable: Intention to negotiate condom use

*Intention to negotiate condom use*: A hierarchical multiple regression analysis was carried out to investigate whether 'giving great value to life and health' and 'verbal condom negotiation strategies' make significant contribution to the variance in intention to negotiate condom use after controlling for Perceived Behavioral Control, Subjective norms and Attitude (Table 4.3).

The results of the first regression model show that about 30.0% of the variation in intention to negotiate condom use can be significantly explained with Attitude, Subjective norms, and PBC, F(3, 372) = 53.223, p < .0001. When 'giving great value to life and health' was added into the third regression model, R3 increased 8.8% (from .300 to .388), F(5, 370) = 46.858, p < .0001. Finally, when 'condom negotiation strategies' was added to the fourth regression model, R4 increased 5% (from .388), and the full regression model remained statistically significant, F (6, 369) = 47.881, p < .0001). While the five variables collectively explained 43.8% of the variation on the dependent variable, the two external variables ('condom negotiation strategies' and 'giving great value to life and health') jointly explained 13.8% of variation of 'intention to negotiate condom use' over and above TPB variables.

In addition, as Table 4.3 and Fig. 4.1 show, except Subjective norms (Beta = .024, P = .618), all the rest— 'condom negotiation strategies' (Beta = 0.323, P < .0001), Perceived Behavioral Control (Beta = 0.178, P = .001), 'giving great value to life and health' (Beta = 0.175, P = .002), and Attitude (Beta = .089, P = .044), could uniquely explained variance in college students' 'intention to negotiate condom use' at descending order. Based on these unique predictor variables, the complex model shown above (Fig 4.1) has been constructed.

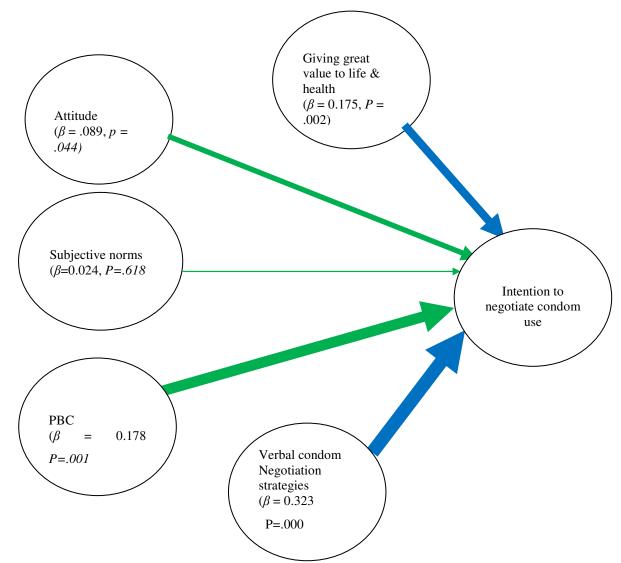


Fig 4.1: Variables Influencing Intention to Negotiate Condom Use

Subjective norm is not a unique significant predictor, but has been retained instead of being removed, for it has been part of the original tested model. The unidirectional lines indicate casual relationship between the predictor variables and the dependent variable. Their unique power of influence on the dependent variable, intention to negotiate condom use, is indicated with Beta value and weight given to the arrows. That is to say, the arrow with the heaviest weight is the strongest unique predictor (in this case, 'verbal condom negotiation strategies'), and the thinnest line (subjective norm) is the weakest (insignificant) predictor.

From the analysis it can be concluded that college students' intention to negotiate condom use is dependent on their attitude towards negotiating condom use, confidence in communicating condom use, using condom negotiation strategies, and the value they give to life and health, for the study population.

## 5. Discussion

The survey research tries to appraise how condom use communication variables influence college students' intention to negotiate condom use. The study found positive association between college students' (general-combination of sexually active and inactive) attitudes toward condom use communication, subjective norms, perceived behavioral control (communication confidence) and intent to negotiate condom use. The results of the regression analysis show that about 30 % of the variation in intention to negotiate condom use can be significantly explained with the predictor variables of Subjective Norms, Attitude, and Perceived Behavioral Control. The significant relationship between these predictor variables and the dependent variable (intention) was not surprising, because they have been found collectively accounting for 39 % of the variance, on the dependent variable, with previous TPB meta-analyses (Armitage & Conner, 2001). Furthermore, the finding is in line with the Theory of Planned Behavior which stipulates that people with positive attitude, higher perception of subjective norms, and more communication confidence (PBC) are more likely to have stronger intention of the required behavior than those who display negative attitude, lower perception of significant others, and less communication confidence.

Moreover, an addition of two external variables to TPB- 'giving great value to life and health' and 'verbal condom negotiation strategies' improved the model's prediction power by 13.8 % (from 30 % to 43.8 %) over and above TPB's original variables.

The study also demonstrated that the three original TPB variables and the two external variables to the model differ in their unique contribution towards explaining 'intention to negotiate condom use'. From these five variables, 'negotiation strategies' (Beta = 0.323, p < .0001), an external variable to the model, was the strongest unique predictor of intention to negotiate condom use implying that Jimma University undergraduate students who perceived that they apply different condom use verbal negotiation strategies were more likely to intend to negotiate condom use in the future. This finding supports the finding of previous studies which reported that condom influence strategies positively related to intention to use condom consistently (DeBro *et al.*, 1994; Noar et al., 2002).

Next to 'verbal condom negotiation strategies', Perceived Behavioral Control (Beta =.178, p = .001) was found to be a stronger unique predictor of intention to negotiate condom use. This may indicate that Jimma University undergraduate students who show confidence in condom use communication were more likely to intend to negotiate condom use in the future. That is to say, confidence in communication about condom use is necessary for intending to negotiate condom use. The finding is in agreement with a previous research which reported that with as much as 50% of the variance in intention was accounted for by perceived behavioral control (Conner et al., 1999). The finding is also in harmony with Armitage and Conner (2001) who said: "The perceived behavioral control (PBC) construct accounted for significant amounts of variance in intention and behavior" (p.471). However, it is not in harmony with previous research (Jang & Yoo, 2009) that observed: "We found that communication efficacy (i.e. the perceived behavioral control measure) was not a factor that predicted communication desire [intention]."(p.131). Two explanations for this could be differences in behavior (behavior avoidance, negotiation to use condom) and priority populations (American

What comes in the third place, in terms of unique prediction power, is 'giving great value to life and health' (Beta =.175, p = .002), an external variable constructed from the qualitative data of this study. It suggests that Jimma University undergraduate students who perceived that they would give great value to life and health were more likely to intend to negotiate using condom.

What comes in the last place in terms of unique prediction power is Attitude (Beta =.089, p = .044). It was the least significant unique predictor of intention to negotiate condom use. This may imply that Jimma University undergraduate students who exhibit favorable attitude towards discussing condom use were more likely to intend negotiating using condom in the future, and the finding is in agreement with Brann and Sutton (2009). Thus, it may be reasonably concluded that if a person feels comfortable about negotiating condom use, s/he is more willing to intend to engage in it.

However, 'Subjective norm' (Beta = .024, p = .618) was not found to be a unique significant predictor of intention to negotiate condom use indicating that Jimma University undergraduate students intend to negotiate condom use regardless of (1) their perception of what significant others do and (2) their perception of what significant others expect them to do with regard to negotiation of condom use. That means, their perception of significant others' approval concerning negotiation about condom use does not affect their intention to negotiate condom use. According to Elwood, Greene and Carter (2003), what significant others think about a behavior, for instance condom use, can influence a person's behavior, but only if the person thinks it is important to comply with the attitudes of significant others. The finding from this study supports previous research (Brann & Sutton 2009), and several others (e.g. Sparks et al., 1995) that removed Subjective norms from analysis because of its weakness in predicting behavioral intentions related to health behaviors. Conversely, it did not fully support the finding of Jang and Yoo (2009) who reported that "Subjective norms... contributed to the prediction of communication desire [intention]" (P.131), and the outcome difference could be attributable to the types of behaviors involved (avoiding behavior, negotiation to use condom) and priority populations (American /Midwestern University students, Ethiopian /Jimma University students).

The findings suggest that the most important variables that influence intention to negotiate condom use are personal factors, for this study population (general-combination of sexually active and inactive). That is to say, both perceived 'verbal condom negotiation strategies' and ' giving great value to life and health' (personal factors), external variables to TPB, make unique significant contribution to the variance in intention to negotiate condom use after controlling for Perceived Behavior Control, Subjective norms, and Attitude, which are the original constructs of TPB. Likewise, from TPB constructs, PBC and attitude (personal factors) appear to be more important variables to influence intention to negotiate condom use. The finding is in line with Rivis and Sheeran (2003) who argued that intentions are influenced primarily by personal factors (attitude and perceived behavioral control).

Existing literature on safer sex communication reported conflicted findings. While some studies (e.g. Noar *et al.*, 2004) reported that safer sex communication influences safer sex, others (e.g. Fadiora *et al.*, 2002) reported the reverse, and the result of this study supports the former ones. The study also contributed to knowledge—it enhanced TPB's behavioral intention predication power. Therefore, the study concludes that condom use negotiation intention is dependent on favorable attitude towards discussing condom use, higher condom communication self-efficacy, higher perception of using condom negotiation strategies, and higher value given to life and health.

## 7. Recommendation

Regression analyses showed causal relations between intentions to negotiate condom use and two of the TPB variables (Ajzen, 1991)— attitude and perceived behavioral control as well as two external variables to TPB— 'verbal condom negotiation strategies' and 'giving value to life and health'. Moreover, this study and some other related studies share the same model for condom use. Therefore, the finding suggests for intervention that raises individuals' and couples' positive attitudes towards communicating condom use and develops their condom communication self confidence. In addition, the finding suggests for intervention that encourages subjects to use condom negotiation strategies, to appreciate their life and health, and to improve their condom negotiation skill through sex education programs.

TPB cannot fully account for undergraduates' intention to negotiate condom use for its variance accounted only 30%. An addition of external variables —perceived 'verbal condom negotiation strategies' and 'giving value to life and health'— to TPB expanded its prediction power by 13.8 % over and above Attitude, Subjective norm, and PBC. This suggests that there may be other factors, in addition to these (internal and external) variables that influence students' intention to negotiate condom use. Hence, future researches can fill this gap, for example, by examining how language use (e.g., metaphors of condom) contributes to the variance in intention to negotiate condom use.

Though Ajzen (1991) contended that intentions lead to behavior, there is no guarantee that those who claim they would negotiate condom use actually do so. Future studies should explore future behavior- whether intention to negotiate condom use leads to actual behavior—condom use. That is to say, a longitudinal study needs to test a full causal model, which the TPB originally created.

The survey part of this study did not assess the casual relationship between explanatory TPB variables and the other dependent safer sex variables — abstinence, faithfulness, and using VCT (HIV testing). Hence, future studies should fill this gap.

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# Appendix A

# Table 3.1: Sample Size Determination

