

ATTITUDES ABOUT PARTNER COMMUNICATION REGARDING
CONTRACEPTIVE USE AMONG HISPANIC MALE COLLEGE
STUDENTS

by

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I. INTRODUCTION

The purpose of this study is to examine Hispanic male college students' attitudes about communicating with partners about contraception use. This study will explore young Hispanic men's knowledge and beliefs about hormonal contraceptive safety, effectiveness, and proper use. Cultural attitudes regarding power in relationships, partner communication, and perceived subjective norms will be analyzed as well. A survey addressing these variables will be used to measure the knowledge and attitudes of the sample. The Theory of Planned Behavior (Glanz et al., 2008), with an added knowledge construct, will be used to guide this study. The Theory of Planned Behavior, in its entirety, addresses concepts applicable to understanding Hispanic male attitudes towards contraceptive use.

Rationale

Hispanics comprise the largest and most rapidly growing minority group in the United States (Wingood et al., 2011). Hispanics also lead other ethnic groups in rates of unintended pregnancies and account for alarming numbers of sexually transmitted infections (STIs) each year (Branch et al., 2010). Research has revealed the importance of cultural influence, gender imbalances, and communication among Hispanics that impact reproductive behaviors (Branch et al., 2010; Wingood et al., 2011; and Sable et al., 2006).

Recently developed culturally relevant sexuality education programs have focused primarily on female empowerment, maternal communication skills, and adolescent behavior. While these programs have yielded promising behavior change results, many adult Hispanic female participants expressed a fear or inability to disclose study participation with their male partners (Wingood et al., 2011). This obstacle has interfered with recruiting potential samples and study retention.

Research addressing knowledge and attitudes about hormonal contraception among Hispanic males is lacking in the field (Wingood et al., 2011). Previous studies suggest that - attitudes of Hispanics about contraception are changing (Jones et al., 2012). Curricula addressing partner communication barriers and accurate contraceptive knowledge may stimulate positive changes in Hispanic male sexual behaviors and a reduction in unintended pregnancies. By targeting this gap in research, program developers may utilize findings to more effectively reduce reproductive health disparities and improve the status of the Hispanic population as a whole.

Theoretical Approach

The Theory of Planned Behavior (TPB), with an added knowledge construct, will be the theoretical framework used to guide this study. The external variables within this theory include demographics, attitudes, personality traits, and individual differences. The constructs within the TPB directly related to behavioral intention are attitudes, subjective norms, and perceived behavioral control (Glanz et al., 2008). The concept of knowledge will be added as a determinant of behavioral intention, considering that previous research

has identified a lack of contraceptive education as an important barrier to effective communication (Nadeem et al., 2006).

External Variables

The external variables included in the TPB are demographics, attitudes, personality traits, and individual differences. The overall demographics (i.e. subjects) of the study population will be Hispanic male college students. Varying demographic factors will include age, marital status, parents' education level, and family size. The attitude variable will illustrate a positive, negative, or indifferent perspective on the importance of contraceptive use communication. Personality traits will describe characteristics of *machismo* (independence, superiority, and controlling behavior) and *familismo* (strength of family relationships). These concepts have been associated with more "traditional" Hispanic beliefs and behaviors (Branch et al., 2010; Knipper et al., 2007). Individual differences will account for age of migration and differences in acculturation.

Determinants of Behavioral Intention

The concepts within the TPB directly related to behavioral intention are attitude, subjective norms, and perceived control (Glanz et al., 2008). The additional knowledge concept will be included among these variables.

Attitude is composed of the beliefs concerning a behavior and the participants' perceptions about the outcomes produced by performing that behavior (Glanz et al., 2008). Research has established a general indifference or negative attitude toward contraceptive use among Hispanic males (Branch et al., 2010). The prevalence of myths, the level of acculturation, and parental communication are factors hypothesized to determine attitudes (Rios-Ellis et al., 2011; Guilamo-Ramos et al., 2011; Nadeem et al., 2006; and Guilamo-Ramos et al., 2006).

The subjective norm delineates from normative beliefs and the motivation to comply with those beliefs. Normative beliefs encompass a person's perception of what people close to him think of the behavior (Glanz et al., 2008). Researchers have identified variances in the levels of concern Hispanic males have for their female partner's opinions about safer sexual practices and contraceptive method choices (Branch et al., 2010; Sable et al., 2006). Previous findings also showed that Hispanic males experience pressure from family members to have many children (Sable et al., 2006).

Perceived behavioral control consists of a person's control beliefs, paired with his perceived power. Control beliefs refer to factors that inhibit or support the performance of the behavior. Perceived power is one's perception of whether or not he can overcome or utilize these control factors (Glanz et al., 2008). Researchers recorded barriers to partner communication, such as gender role expectations, suggestions of infidelity, and alcohol intoxication. Among the participants in these studies, implications of their perceived power over these obstacles were low (Branch et al., 2010). The goal of this proposed research effort is to validate previously defined barriers, as well as explore

additional control beliefs. It is expected that male peer influence, cultural beliefs, and knowledge will have an impact on perceived behavioral control.

The knowledge concept in this study will focus on medically accurate knowledge concerning contraceptive methods, safety, effectiveness, and proper use. Previous findings suggest that Hispanic males are provided with little to no factual information on these topics, resulting in uncertainty or reluctance to discuss or use contraceptives (Branch et al., 2010; Venkat et al., 2008; and Nadeem et al., 2006). Knowledge is expected to relate directly to participants' intention to use contraceptives, along with attitudes, subjective norms, and perceived control.

Research Questions

To understand how Hispanic male college students' knowledge and attitudes about contraception impact their intentions to communicate with partners about contraceptive use, the following research questions will be explored:

- What is the impact of parental communication on Hispanic male college students' attitudes about contraceptive use?
- What is the impact of traditional Hispanic gender roles on male college students' knowledge and attitudes about hormonal contraception?
- What is the impact of knowledge about hormonal contraception on partner communication and contraceptive use among Hispanic male college students?
- What is the impact of traditional Hispanic gender roles on male college students' attitudes toward communicating with partners about contraceptive use?

Assumptions

For this study, it is assumed that participants are racially Hispanic/Latino (self-identified) and 18 years or older. In addition, it is assumed that participants will be able to read and understand survey questions, as well as answer honestly.

In regards to the contraceptive method awareness items in the survey, when asked if the participant has heard of a particular method, a response of “no” or “not sure” is assumed to indicate a lack of knowledge about that method.

Definitions

Hispanic/Latino: People who self-identify their ethnic heritage from - Cuban, Mexican, Puerto Rican, South American, Central American, or other Spanish culture or origin regardless of race (U.S. Census Bureau, 2011).

Acculturation: The process of cultural adaptation in a new country of residence (Sable et al, 2006).

First generation Hispanic: Foreign-born, primarily Spanish-speaking, and migrated to the U.S. after the age of 13 (Wilson, 2009).

Second generation Hispanic: Foreign-born, migrated to the U.S. prior to the age of 13 (Wilson, 2009).

Third generation Hispanic: Born and raised in the United States (Wilson, 2009).

Machismo: A term used to describe male dominance and superiority (Branch et al., 2010).

Marianismo: A term used to describe female submissiveness and inferiority (Branch et al., 2010).

Familismo: A strong attachment to immediate and extended family (Knipper et al., 2007).

Fatalism: The belief that external forces influence or control life events (Rocca et al., 2012).

Sexually Transmitted Infection (STI): A bacterial or viral infection that is transmitted via sexual contact. HIV/AIDS, gonorrhea, chlamydia, syphilis, herpes simplex, and human papillomavirus (HPV) are examples of STIs (Planned Parenthood, 2014).

Sexual contact: Vaginal, anal, oral sex, or any physical contact with another person's genitals (Planned Parenthood, 2014).

Barrier contraceptive methods: When used properly, protect against unwanted pregnancy and sexually transmitted infections (STIs). Methods include male condoms, female condoms, cervical cap, and diaphragm (Planned Parenthood, 2014).

Hormonal contraceptive methods: Protect against pregnancy only. Methods include oral contraceptives (the pill), the patch, NuvaRing™, hormone injections (Depo-Provera™), implants (Implanon™), intrauterine devices (IUD), and emergency contraception (Plan B™) (Planned Parenthood, 2014).

Paternal protectiveness: The father-child emotional attachment positively influencing parental behavior (Lesser et al., 2009).

II. LITERATURE REVIEW

Hispanics comprise the largest and most rapidly growing minority group in the United States (Wingood et al., 2011). Hispanics also lead other ethnic groups in rates of unintended pregnancies and account for excessive numbers of sexually transmitted infections (STIs) each year (Branch et al., 2010). Recent research indicates cultural and educational factors contribute to the prevalence of these health disparities among Hispanic adults and adolescents (Morales-Campos et al., 2012; Lee & Hahn, 2010; Wilson, 2009; Colarossi et al., 2010; Venkat et al., 2008; and Garcés-Palacio et al., 2008). Cultural norms, gender roles, attitudes, and beliefs often interfere with Hispanic males' contraceptive knowledge and communication behaviors.

Cultural Beliefs and Norms

The Hispanic culture encompasses strong attitudes and beliefs about sexuality and reproduction. Researchers hypothesized religious views as a definitive determinant of contraceptive use (Branch et al., 2010; and Wilson, 2009), but found that evolving generations exhibit fewer strict Catholic values. The beliefs and attitudes interfering with Hispanic contraceptive use include gender roles within families and fertility concerns (Sable et al., 2006; Branch et al., 2010; Zukoski et al., 2011; Guilamo-Ramos et al., 2006; and Wilson, 2009).

The Hispanic culture emphasizes clear and differing expectations for each gender. *Machismo* is a term used to describe male dominance and superiority, whereas

marianismo refers to female submissiveness and inferiority (Guilamo-Ramos et al., 2006; and Zukoski et al., 2011). Researchers conclude that these behaviors impede confidence in using and discussing contraception (Branch et al., 2010; and Sable et al., 2006).

Studies Examining Machismo

Machismo stimulates risky sexual behaviors by creating an imbalance in relationship power (Sable et al., 2006; Branch et al., 2010; and Winett et al., 2011). Focus groups conducted by Sable et al. (2006) validated the idea that Hispanic men perceive themselves as independent and having control over women. Hispanic men discussed negative feelings about women entering the work field and identified infidelity as a cultural norm among males. Organista et al. (2013) revealed a common perception of infidelity as a necessity for Hispanic men living and working in the United States. Winett et al. (2011) received similar responses, as well as discovered a belief that the United States' sexually liberal culture encourages infidelity. Branch et al. (2010) found similar ideas, along with a perception by Hispanics of condom use signifying unfaithfulness or sexual promiscuity. Men reported introducing condom use with primary partners would insinuate or expose their infidelity. Women feared that recommending condom use would imply distrust or an accusation of infidelity (Branch et al., 2010).

Machismo typically exudes a negative connotation, but ideally, male superiority, strength, and family responsibility in the Hispanic culture are vital to the development and maintenance of a successful household. Male protectiveness emerged as a positive influence on contraceptive use (Sahin et al., 2008; Lesser et al., 2009; and Knipper et al.,

2007). High levels of paternal protectiveness among Hispanic teen-parent couples resulted in a decrease in unprotected sex (Lesser et al., 2009). Likewise, first generation Hispanic men dedicated to the practice of positive traditional masculine norms reported more frequent condom use than those exhibiting negative *machismo* characteristics (Knipper et al., 2007).

The inequality of relationship power does not infer that women are without cultural responsibilities. Research regarding Hispanic men's attitudes toward hormonal contraception produced notable results. Men consistently defined non-barrier birth control methods as the woman's responsibility and choice (Branch et al., 2010; Sable et al., 2006; Sahin et al., 2008; and Zukoski et al., 2011).

Studies Examining Attitudes about Marianismo

Men of other cultures expressed a reliance on female hormonal contraceptive use as a justification for not using condoms (Sahin et al., 2008). Hispanic men share this attitude; however, Hispanic men often evade participation in the discussion and choice of female contraceptive methods. Branch et al. (2010) noticed that aside from this rare decision-making opportunity, Hispanic women were still reluctant to use hormonal contraceptives. Researchers found portrayal of the withdrawal method as effective and comforting to women. Female participants insisted that their husbands were "taking care" of them by withdrawing and hormonal contraception was unnecessary (Branch et al., 2010). Male respondents in a separate study confirmed this belief, ensuring interviewers that the "safe timing" of their withdrawal method protects their female partners from

unintended pregnancy (Kissinger et al., 2012). Confusion regarding female responsibilities and decisions also existed in aspects of motherhood, as research indicated women promote gender roles to their children (Guilamo-Ramos et al., 2006).

The importance of family and child-rearing becomes instilled in Hispanic women at a young age (Branch et al., 2010). Guilamo-Ramos et al. (2006) discovered uncertainty among immigrant mothers about their role as an educator to their adolescent children. Qualitative data involving adolescent mother dyads confirmed double-standards concerning teen sexual behaviors are common in Hispanic households. Adolescent females, in particular, expressed frustration regarding parental permissiveness with sons and exaggerated protective behavior toward daughters (Guilamo-Ramos et al., 2006). Although second-generation Hispanics still endure these conflicting gender roles within their families, recent findings suggest an evolution toward equality among the more acculturated groups (Zukoski et al., 2011).

Programs encouraging contraceptive use encounter effectiveness problems when Hispanic gender dynamics are not addressed. Curricula endorsing gender and cultural pride empowered Hispanic women. Study results included improved self-efficacy in initiating condom use and increased perceived relationship power among Hispanic women (Wingood et al., 2011).

Studies Examining Attitudes about Reproduction and Fertility

As noted earlier, high cultural value is placed on motherhood for females. Additional research indicated cultural beliefs regarding family size and fatherhood also

have an impact on Hispanic contraceptive use (Sable et al., 2006; Wilson, 2009; and Venkat et al., 2008).

Due to the “large family” norm in Latin countries (Bogue, 2011), first-generation (i.e. foreign-born, primarily Spanish-speaking, and migrated to the U.S. after the age of 13 (Wilson, 2009)) Hispanic women in one study expressed a desire to have at least three children. To accommodate this goal, research showed childless adult women avoided contraceptive use for fear of infertility (Bogue, 2011; and Wilson, 2009). Rocca et al. (2012) found complementary results regarding attitudes about potential pregnancies. Latina women were significantly more likely than women of other ethnicities to favor the news of an unplanned pregnancy. Bogue (2011) discovered unique patterns of marriage and fertility rates among Hispanics in comparison to other ethnic groups. Birth rates among cohabiting Hispanic couples did not differ from birth rates of legally married Hispanic couples (Bogue, 2011). Sable et al. (2006) yielded comparable results and discovered a concern among men and women regarding a child’s need for siblings. Parents explained that siblings are essential in order to teach children the importance of sharing and selflessness (Wilson, 2009; and Sable et al., 2006).

Hispanic men identified the cultural belief that fathering multiple children represents masculinity and heterosexuality (Sable et al., 2006). Participants reported implications of homosexuality are directed at Hispanic men with few children. This study, along with Shih et al. (2011), produced evidence that Hispanic men avoid sterility procedures as a precaution to remain fertile for possible new partners (Sable et al., 2006).

Communication

Research confirmed Hispanic gender roles present a barrier to contraceptive use communication between partners, but further investigations determined additional imperative factors hindering effective communication skills. Recurring topics interfering with Hispanic contraceptive use and communication are knowledge, education level, and parental communication practices (Garcés-Palacio et al., 2008; Venkat et al., 2008; Nadeem et al., 2006; Rios-Ellis et al., 2011; and Guilamo-Ramos et al., 2011).

Studies Examining Parental Communication

Research findings have consistently shown participants report sexual health is not a topic discussed within Hispanic families, particularly in traditional families (Rios-Ellis et al., 2011; Guilamo-Ramos et al., 2011; Nadeem et al., 2006; and Guilamo-Ramos et al., 2006). First generation Hispanic immigrants consistently recounted that sexual and reproductive information was never presented to them by their parents. Research supported that less acculturated immigrant families maintain similar practices (Rios-Ellis et al., 2011; Sable et al., 2006; and Colarossi et al., 2010).

Second generation parents expressed a desire to increase sexual communication with their children (Branch et al., 2010), but adolescents explained that vague language, gender inconsistencies, and scare tactics created barriers to comprehension and discussion (Rios-Ellis et al., 2011). Embarrassment and insufficient contraceptive knowledge caused Hispanic parents to avoid explicit language when attempting to

educate their children. Consequently, adolescents identified fear of punishment and judgment as obstacles to initiating sexuality communication with parents (Rios-Ellis et al., 2011). Nadeem et al. (2006) established more frequent adolescent contraceptive use among participants whose parents used explicit language when discussing sexuality. Guilamo-Ramos et al. (2011) further explored the relationship between knowledge and communication of highly acculturated Hispanic families. These study results identified comfort and trust among adolescents whose parents were knowledgeable on topics of contraception and pregnancy. A lack of contraceptive knowledge most commonly resulted in an absence of parental education (Nadeem et al., 2006). However, there are studies showing attitudes of Hispanics about contraception are changing whereby more Hispanics see contraception as morally acceptable and support expanding access to birth control (Jones et al., 2012).

Studies Examining Partner Communication

Limited parental guidance, disproportionate gender authority, and the cultural value of sexual silence deter effective communication between Hispanic sexual partners (Seal et al., 2012; and Winett et al., 2011). Unaddressed discussion topics between Hispanic sexual partners include sexual history, STIs, incidence of infidelity, and contraceptive method options (Seal et al., 2012; and Winett et al., 2011).

Differences in partner communication beliefs emerged in a qualitative study involving adult Hispanic men and women (Seal et al., 2012). Eighty percent of females confirmed the importance of STI and sexual history discussion between partners, whereas

seventy percent of males disagreed. Men shared the belief that sexual history should not be disclosed at any time due to the common practice of infidelity (Seal et al., 2012).

Winett et al. (2011) found evidence supporting this belief, adding that men consider the concealment of their adultery a symbol of protection and love for spouses.

Hispanic adolescents who lack parental guidance, efficient communication skills, and education enter adulthood with limited direction on how and where to receive sexual health information (Rios-Ellis et al., 2011; Guilamo-Ramos et al., 2011; Nadeem et al., 2006). These common barriers faced by Hispanic men cultivate the importance of clear, concise communication between Hispanics and healthcare providers (Bocanegra et al., 2011; and Colarossi et al., 2010).

Studies Examining Physician Communication

Spanish-speaking immigrants experience many challenges in the United States, particularly in the field of healthcare. Language barriers and low literacy levels contribute to Hispanics' difficulties navigating the healthcare system and receiving thorough, accurate information (Bocanegra et al., 2011; and Colarossi et al., 2010).

Bocanegra et al. (2011) revealed Spanish-speaking patients received lower quality healthcare experiences than English-speaking patients. The use of an interpreter, rather than a bilingual physician, interfered with the comfort level of the patient, as well as the provider. Patients felt less confident asking questions and English-speaking physicians appeared less inclined to encourage discussion. This language barrier resulted in less extensive counseling and fewer patients mentioned contraceptive options by physicians

(Bocanegra et al., 2011). Multiple studies shared this finding, as well as recognized the lack of Spanish educational materials and programs determined that these issues are evident especially in rural areas (Colarossi et al., 2010 and Branch et al., 2010).

Seal et al. (2012) determined that English-speaking, Hispanic patients may not be receiving ample guidance from physicians either. The majority of participants agreed that routine medical screenings are the best preventive measure for STIs and cervical cancer, but most participants also lacked knowledge concerning asymptomatic STIs and the causes of cervical cancer (Seal et al., 2012). Many Hispanics recognize this rift in medical counseling as a form of racial discrimination (Colarossi et al., 2010). Uncertainty about the intentions of medical professionals regarding sexual health recommendations appeared repeatedly in the literature (Colarossi et al., 2010; Rocca et al., 2012; and Seal et al., 2012).

Knowledge about Contraception

Demographic information involving Hispanic immigrant populations revealed disproportionate rates of poverty and low levels of education (Venkat et al., 2008; Nadeem et al., 2006; Garcés-Palacio et al., 2008; and Guilamo-Ramos et al., 2011). This barrier, along with poor communication with health care providers or mistrust of the health care system result in a reluctance of Hispanic men to seek medical care and a preference to rely on their natural support networks (Knipper et al., 2007; Sahin et al., 2008; Seal et al., 2012; and Winett et al., 2011). A distrust of the U.S. healthcare system, especially when addressing sexual health, has been expressed by male and female

Hispanic study participants (Rocca et al., 2012; and Seal et al., 2012). Although research has indicated skepticism about preventive healthcare in both genders, Hispanic men display considerably fewer interactions with healthcare resources (Seal et al., 2012; and Rhodes et al., 2012). Accessibility, insurance coverage, and negative experiences contribute to an avoidance of healthcare resources among the Hispanic population.

Studies Examining Hispanics' Experiences with the U.S. Healthcare System

Rocca et al. (2012) discovered doubt among Hispanic females about the government's role in the safety and purpose of hormonal contraception. Women expressed a concern that contraceptive methods are unsafe and used as a technique to limit minority populations in the United States (Rocca et al., 2012). This factor led to a significant difference in method choice. Additional research confirmed the finding that Hispanics with limited contraceptive knowledge utilized less effective contraceptive methods, such as long-term (IUD) or oral contraceptives (Bogue, 2011; Rocca et al., 2012; and Shih et al., 2011). Shih et al. (2011) shared results portraying a lack of health insurance as an additional factor influencing less effective method choices. Kalmuss et al. (2008) found a similar matter contributing to the distrust in health educators and resources. Young Hispanic men experienced difficulty in building trust with educators at community-based organizations due to high staff turnover rates (Kalmuss et al., 2008). Rhodes et al. (2012) noticed similar patterns among Hispanic male soccer players. Selected athletes trained to be lay health advisors counseled teammates on sexual health

topics and distributed condoms, but avoided making referrals to health providers (Rhodes et al., 2012).

Despite the poor communication channels existing between Hispanic males and their parents, partners, and physicians, many continue to seek sexual health advice. Researchers recognized inherent alternative sources of contraceptive information within this population (Knipper et al., 2007; Sahin et al., 2008; Seal et al., 2012; and Winett et al., 2011). Uneducated Hispanics rely on personal stories from family members and friends as a form of sexuality education (Knipper et al., 2007; Sahin et al., 2008; Seal et al., 2012; and Winett et al., 2011).

Studies Examining Social Networks and Familismo

Multiple studies exposed men's reliance on social networks and family members for sexual health advice and information, rather than credible health education resources (Knipper et al., 2007; Sahin et al., 2008; Seal et al., 2012; and Winett et al., 2011). Numerous researchers validated the norm among Hispanic men that friends and family members serve as the most common health information resources (Knipper et al., 2007; Seal et al., 2012; and Winett et al., 2011). Although research has established an overall lack of accurate sexual health knowledge within the Hispanic population, participants who reported family members as sexual health informants exhibited more frequent condom use than those who did not seek advice (Knipper et al., 2007). While these researchers observed fewer risky sexual behaviors among Hispanic men with strong family support and communication, related investigations addressed the impact of weak

family relationships on men's sexual behavior (Kissinger et al., 2012; Organista et al., 2013; and Winett et al., 2011).

Researchers identified the physical absence of family as a factor contributing to unfaithful acts and risky sexual behaviors (Kissinger et al., 2012; Organista et al., 2013; and Winett et al., 2011). First generation male immigrants seeking job opportunities are often forced to leave families in their country of origin for an extended period of time. The majority of these men value their traditional masculine roles as providers for the family, but the lack of physical contact with wives and children frequently leads to increased feelings of loneliness and frustration (Organista et al., 2013). Respondents from this study commonly reported alcohol abuse and sex with prostitutes as coping methods. Paradoxically, these participants showed basic knowledge and fear of contracting an STI from casual partners, but condom use remained inconsistent (Organista et al., 2013). Winett et al. (2011) discovered parallel results, as well as confirming an interest in sexual experimentation as a consequence of limited family contact.

First generation Hispanic men frequently report family separation and temptation as factors inhibiting fidelity, but research identified the involvement in social organizations as having a positive impact on male sexual behaviors (Kissinger et al., 2012; Rhodes et al., 2012). Participants belonging to a social organization were more likely to abstain from sex or report fewer incidences of unprotected sex (Kissinger et al., 2012). Rhodes et al. (2012) reached similar conclusions among Hispanic men in a North Carolina soccer league. Although family and social support encouraged condom use among males, accurate hormonal contraception knowledge remained limited (Garcés-

Palacio et al., 2008; Kissinger et al., 2012; Organista et al., 2013; and Venkat et al., 2008).

Studies Examining Contraceptive Myths and Fatalism

When given a true/false questionnaire over basic pregnancy and contraceptive information, the majority of Hispanic women answered incorrectly or “unsure” on six of the ten questions (Venkat et al., 2008). This researcher and others discovered common myths about pregnancy, contraception, and STIs circulating within the Hispanic culture (Branch et al., 2010; Kissinger et al., 2012; Organista et al., 2013; and Rocca et al., 2012).

Branch et al. (2010) recorded beliefs about toilet seats causing STIs. This misconception was commonly stated by women who had contracted an STI during the course of marriage. Research suggests this myth is a typical explanation used by adulterous men to conceal infidelity (Branch et al., 2010). Organista et al. (2013) revealed common practices by men during episodes of infidelity that relate to spousal infections. Latino migrant workers justified their risky sexual behaviors by claiming that they only have intercourse with “clean” women. Kissinger et al. (2012) recorded corresponding beliefs. Respondents from both studies collectively defined “clean” as women who are white, Catholic, and/or not prostitutes (Kissinger et al., 2012; and Organista et al., 2013).

Branch et al. (2010) also identified the misconception that hormonal contraceptives lead to cancer. Garcés-Palacio et al. (2008) confirmed the existence of this

myth as well as identifying beliefs about Vaseline™ containing pregnancy prevention properties. These misconceptions clarified adult Hispanics' uncertainty about the safety and efficiency of hormonal contraceptives, but more exploration is required to better understand the scope of knowledge and perceptions about such topics among Hispanic young-adult males.

The concept of fatalism exhibited an influence on knowledge about contraception and attitudes toward unintended pregnancies (Rocca et al., 2012; and Kissinger et al., 2012). Fatalism, in regards to sexual health, refers to the belief that fate or luck determines the timing of a pregnancy (Rocca, et al., 2012). Hispanic women with low levels of contraceptive knowledge expressed high degrees of fatalism and positive attitudes concerning unintended pregnancies (Rocca et al., 2012). Likewise, men with lower levels of education and acculturation endorsed strong fatalism beliefs (Kissinger et al., 2012).

Summary

Research has clearly outlined the cultural, educational, and communication barriers to contraceptive use among Hispanics. Patterns of diminishing gender inequalities and reduced family size among more acculturated generations have emerged in recent studies, but disproportionate rates of unplanned pregnancies and STI infections remain (Sable et al., 2006). Researchers have recently developed and tested culturally relevant contraceptive use programs which concentrate on female empowerment and maternal communication (Wingood et al., 2011). These studies have generated promising

results, but focus is needed on increasing contraceptive knowledge and participation in Hispanic males. More information is needed to more clearly understand how cultural beliefs and other culturally-related attitudes influence Hispanic men's perceptions about contraception, but literature supports the impact of sex education programs on contraceptive use by Hispanics will remain unsuccessful unless cultural issues are incorporated into instruction (Sable et al., 2006; Bocanegra et al., 2011; and Wingood et al., 2011).

Due to the increasing Hispanic population, effective curriculum development in the United States requires cultural competency (Wingood et al., 2011). Cooperation among healthcare providers and health educators is needed in order to better serve this population and reduce existing sexual health disparities. Field experts must identify simple program implementation methods for America's healthcare system, education system, and in rural areas (Bocanegra et al., 2011; and Branch et al., 2010).

III. METHODS

IRB Approval

This project was approved by the Texas State IRB on October 8, 2013. The IRB Reference Number is 2013W8218.

Subject Selection

Requirements for participation in this study include self-identification as Hispanic/Latino, male, aged 18 years or older, and enrollment in at least one college course. Texas State University was officially recognized by the U.S. Department of Education as a Hispanic-serving institution in 2011, symbolizing that at least 25 percent of the student population identifies as Hispanic/Latino. A total of 4,035 Hispanic males were enrolled at Texas State during the fall 2013 semester. Using a 95 percent confidence level and a 5 percent margin of error, a minimum sample size of 250 was calculated (Raosoft, 2004).

A snowball sampling technique was employed as this study's recruitment method. The first set of participants was identified via Hispanic-serving organizations offered on the University campus. Targeted organizations included:

Hombres Unidos: A student organization focusing on Hispanic male empowerment and academic success.

Hispanic Business Student Association: A student organization focusing on leadership skill-building and promoting professional careers in business.

Sigma Lambda Beta Fraternity: The largest Latino social fraternity at Texas State University.

Phi Iota Alpha Omicron Fraternity: The oldest Latino social fraternity at Texas State University.

Respondents then identified additional subjects eligible for recruitment. A poster listing study details was also used in high traffic areas on campus to recruit participants.

Dependent Variables

The dependent variables are knowledge and attitudes about contraceptive safety, effectiveness, use, and communication. No intervention was conducted; therefore there was no independent variable administered.

Pilot Testing Procedures

Pilot survey tests were conducted to ensure readability, validity, and reliability of survey questions. The survey was pilot tested by students enrolled in courses in the Department of Health and Human Performance at Texas State University. Hispanic male students were recruited by announcements made during the beginning of class. The researcher and professors made announcements directing qualified students to the departmental lobby. Pilot survey tests were administered in the lobby by the researcher during October and November of 2013.

Forty surveys were administered during the initial pilot test to determine the average length of time required to take the survey and to ensure readability of questions. The survey draft for this pilot test contained 52 items and took participants an average of 6:24 minutes to complete. A second pilot test, using the same protocol, was conducted due to statistical reliability issues discovered in the first pilot test responses. The Cronbach's α for the attitude ($\alpha = .21$), subjective norm ($\alpha = .48$), and perceived behavioral control ($\alpha = .60$) variables during the first pilot test were deemed insufficient. The survey questions for these sections were edited and piloted once again with 25 participants. Cronbach's α scores for attitude ($\alpha = .89$), perceived behavioral control ($\alpha = .77$), subjective norm ($\alpha = .63$) and behavioral intention ($\alpha = .93$) variables improved and indicated internal stability. The survey questions were finalized in November of 2013.

Data Collection Techniques

Data collection began in February of 2014. The researcher collaborated with Hispanic-serving organization leaders to arrange convenient survey administration times and locations. Students who self-identified themselves as Hispanic were recruited for this study.

The researcher first explained the purpose of the survey to participants, explained that survey questions are answered anonymously, and distributed the consent form and paper-based survey (See Appendix A). Each participant received a consent form prior to receiving the survey, which was read, signed, returned to the researcher and placed in an envelope for study records. Consent forms were collected separately from the completed

survey to ensure anonymity. Once the completed survey was returned, the researcher presented the participant with a voucher for a free sandwich, as well as a copy of the consent form which provided the researcher's contact information.

IV. RESULTS

A total of 243 surveys were completed however, due to incomplete data issues, four surveys were removed from the dataset. The 239 complete surveys were included in the final analysis (N=239, 98.4%).

Frequencies were calculated and used to assess demographic information, knowledge, and awareness item responses (See TABLE 1). Demographic item frequency counts revealed the average age of participants was 22.5 years, the majority of participants were single (75.9%), born in the U.S. (90.8%), and had at least two siblings (70.6%). Knowledge item responses were coded as either correct (1) or incorrect (0), with a “not sure” response grouped into the incorrect category (0). Similarly, the awareness items (“Have you heard of the _____ contraceptive method?”) were grouped into two categories. A “yes” response (1) represented general awareness and “no” or “not sure” (0) indicated a lack of awareness. The majority of participants answered incorrectly or “not sure” when asked if hormonal contraceptives are safe for women (68.6%), if hormonal contraceptives cause infertility in women (73.2%), and if hormonal contraceptives cause cervical cancer (88.7%). A high percentage of the sample indicated a lack of awareness about commonly-used contraceptive methods such as intrauterine devices (41.8%), the Depo-Provera™ shot (49.2%), and the Norplant™ arm implant (50.2%). It will be assumed for this study that participants who have not heard of a particular contraceptive method are lacking knowledge about the method’s proper use, effectiveness, and safety.

The internal reliability of attitude (Cronbach’s $\alpha = .893$), perceived behavioral control (Cronbach’s $\alpha = .777$), and behavioral intention (Cronbach’s $\alpha = .928$) variables

indicated internal stability for these constructs. The internal reliability of the subjective norm variable was slightly below acceptable (Cronbach's $\alpha = .627$). Values for Cronbach's α are considered acceptable between the range of .70 - .95 (Tavakol et al., 2011). Issues interfering with achieving an acceptable Cronbach's α include an insufficient number of items per variable. The limited number of subjective norm items included in the instrument (5) may be the reason for this below-acceptable Cronbach's α value.

The scales for attitude, subjective norm, perceived behavioral control, and behavioral intention contained Likert-type items with responses ranging from 1 to 7. The attitude variable was the sum of responses to seven items and ranged from 7 to 49. A higher score indicated a more positive attitude towards partner communication. The subjective norm variable was the sum of responses to five items and ranged from 5 to 35. A higher score represented a greater influence of subjective norms in participant's intention to communicate with sexual partners about oral contraception. The perceived behavioral control variable was the sum of responses to ten items and ranged from 10 to 70. A higher score indicated a stronger perception of control in regards to communicating with partners. The behavioral intention variable was the sum of responses to three items and ranged from 3 to 27. A higher score indicated a stronger intention to communicate with partners about contraceptive use.

A confirmatory factor analysis was conducted to ensure each variable produced two components with an Eigenvalue of one or greater. This occurred in all except the attitude variable. Only one component was extracted in the component matrix, but the Eigenvalue of the second component (.884) although not reaching a value of one, was

still distinguished from the other values ($\leq .457$). The affective attitude component was not extracted for the attitude variable due to weaknesses in the outcome expectation items. The experiential attitude, also referred to as the affect, addresses the participant's emotional response to the idea of partner communication about contraceptive use. The instrumental attitude refers to the cognitive reaction to the idea of the behavior (Glanz et al., 2008). The semantic differential scales for the seven attitude items did not clearly distinguish experiential from instrumental factors.

A regression analysis was used to examine the relationships between the dependent variable, intention to communicate with partners, and the independent variables, attitudes, subjective norms, and perceived behavioral control. Results indicated attitudes, subjective norms, and perceived behavioral control explained 38% ($R^2 = .383$) of variance in participant's intention to communicate about oral contraception. The unstandardized coefficient B weights indicated subjective norm ($\beta = .277$) as the strongest predictor of intention. However, the standardized coefficient β weights identified perceived control ($\beta = .329$) as the strongest predictor of intention (See TABLE 2).

The participant's number of siblings had a significant impact on subjective norms, as well as intention. For this analysis, the family composition item was coded using an ordinal scale ranging from one to five. A score of one represented zero siblings, two representing one sibling, etc. with a maximum score of five indicating four or more siblings. Those with more siblings ($M = 16.88$, $p = .038$) were significantly more likely to intend to communicate with partners about contraception use than those with fewer siblings ($M = 14.40$). Furthermore, the influence of social norms was smaller for

participants with more siblings ($M = 23.56$, $p = .017$) (See TABLE 2). The survey item addressing participants' primary source of contraceptive information was coded on a nominal scale, with a score of one representing the identified primary source and a score of zero filling all other source options. Participants who received most of their contraceptive information from friends and extended family members exhibited a higher perception of control ($M = 56.23$, $p = .022$), whereas participants who received most of their information from their fathers exclusively exhibited a slightly more favorable attitude toward partner communication ($M = 35.33$, $p = .05$) (See TABLE 4). Findings indicated no statistically significant impact of media on attitudes, perceived control, subjective norm, or intention to discuss contraception, when media were the primary source of contraceptive information. When testing for the effect of parental education levels on participant knowledge about contraception, a positive relationship ($r = .17$, $p = .045$) was discovered in regards to mothers' education level specifically. Each parental education survey item was coded using an ordinal scale, with a score of one representing "less than high school," a score of two representing a "high school diploma," three indicating "some college," and four representing a "college degree." The mean scores associated with participant knowledge increased as mothers' education levels increased (See TABLE 5). No significant relationship was found between participant knowledge about contraception and father's education level.

Correlation coefficient values are considered small when less than .35 (35%), moderate between .36 and .67, and strong if the value reaches .68 or higher (Taylor, 1990). The TPB hypothesizes a strong relationship between knowledge and attitude, and previous research identified subjective norms to be most strongly correlated with condom

use intentions (McEachan et al., 2011). This study identified a small correlation between knowledge and attitude (25.4%) and a moderate correlation between subjective norm and intention (49.2%). Intentions were most strongly correlated with perceived control (52.7%) followed by subjective norm (49.2%). Attitude was most strongly correlated with perceived behavioral control (55.5%) in this study's sample (See TABLE 6).

TABLE 1. Sample Demographics

Demographics	<i>M</i>	<i>SD</i>	<i>n</i>	%
Age	22.5	4.07		
Marital Status				
Single			180	75.3
Married			12	5.1
Cohabiting			27	11.4
Other			18	7.6
Family Composition (# of siblings)				
Zero			23	9.6
One			47	19.7
Two			73	30.5
Three			42	17.6
Four or more			53	22.2
U.S. Born			217	90.8
Foreign Born			24	10
Spanish-speaking			182	76.2
Campus Organization Member			140	58.6

TABLE 2. Coefficients

	Unstandardized Coefficients (B)	Standardized Coefficients (β)	Sig.
Attitude	.103	.148	.025
Subjective Norm	.277	.285	.000
Perceived Control	.197	.329	.000

TABLE 3. Family Composition Effect on Subjective Norms and Intention

# of Siblings	M	SD	P
<i>Subjective Norms</i>			
Zero	27.13	4.86	.02
One	24.00	6.08	
Two	26.00	4.53	
Three	25.62	4.67	
Four or more	23.57	6.10	
<i>Intention</i>			
Zero	14.39	5.17	.04
One	14.40	5.91	
Two	16.69	4.22	
Three	16.88	4.52	
Four or more	14.98	6.04	

TABLE 4. Primary Sources of Information

	<i>M</i>	<i>SD</i>	<i>p</i>
<i>Friends and Extended Family Members</i>			
Attitude	40.50	8.03	.69
Subjective Norm	25.47	5.98	.49
Perceived Control	56.32	8.07	.02
Intention	15.87	5.39	.68
<i>Media</i>			
Attitude	38.75	8.36	.10
Subjective Norm	25.74	5.28	.30
Perceived Control	54.21	7.54	.98
Intention	16.19	4.35	.37
<i>Father Only</i>			
Attitude	35.33	12.53	.05
Subjective Norm	22.33	7.30	.12
Perceived Control	50.89	11.05	.26
Intention	14.89	6.41	.66

TABLE 5. Parental Education Levels Effect on Knowledge

	<i>M</i>	<i>SD</i>	<i>p</i>
<i>Mother</i>			.04
< High School	2.51	1.60	
High School Diploma/GED	2.88	1.12	
Some College	3.13	1.27	
College Degree	3.13	1.04	
<i>Father</i>			.15
< High School	2.69	1.32	
High School Diploma/GED	2.86	1.19	
Some College	3.18	1.22	
College Degree	3.10	1.24	

TABLE 6. Pearson Product-Moment Correlations

	Knowledge	Attitude	SN	PBC
Knowledge	1			
Attitude	.254	1		
Subjective Norm	.160	.468	1	
Perceived Control	.249	.555	.428	1
Intention	.229	.465	.492	.527

V. DISCUSSION

In the United States, there are cultural norms, expectations, and societal responses associated with heterosexual masculinity that often challenge men's health (Courtenay, 2000). These obstacles faced by men, when paired with male-dominated cultural norms, can result in health issues for both men and women. This study explored the impact of cultural beliefs and factors, such as traditional gender roles and family size norms on Hispanic male college students' attitudes about communicating with sexual partners about contraception use. Considering the average age of participants and the fact that the overwhelming majority of the sample was born in the United States, the data reflects the perspective of a more educated, less traditional Hispanic group (i.e. born and educated in the United States).

Most participants still reported signs of culturally traditional Hispanic upbringings, such as the large family composition. The increase in intention for participants with a higher number of siblings may be attributed to protective traits associated with *familismo*. The literature notes the cultural belief from parents' perspectives that many siblings are essential in order for children to learn valuable social skills (Wilson, 2009; and Sable et al., 2006). Bronfenbrenner's Ecological Paradigm (1994) supports the notion that a child's family environment has a major impact in his or her development. Due to the lack of specificity in the family composition survey item, it is not possible to determine sibling order or type (biological, half, step, etc.). From the child's perspective (i.e. the study participant) concern for positive role-modeling could be a reason for higher intentions to communicate with partners about contraception use and

avoid an unplanned pregnancy. Evidence in the literature also supports the idea that more acculturated Hispanics living in the United States have less of a desire to have large families than less acculturated Hispanics (Branch et al., 2010; and Wilson, 2009). Being that the sample consisted of educated young adults, intentions to communicate with partners about contraception use may be higher for those coming from larger families because of this generation's evolving family size norms.

Although it seems that family planning has become more important to this population, findings in this study, as well as others, suggest that awareness and knowledge about more effective and long-term contraceptive methods need attention within the Hispanic population as a whole. Previous research discovered that low levels of contraceptive knowledge led Hispanic women to choose less effective contraceptive methods than women of other ethnicities (Bogue, 2011; Rocca et al., 2012; and Shih et al., 2011). The affordable and convenient Depo Provera™ shot (3 months of contraceptive protection), the long-term arm implant (up to 3 years of protection) and IUD (up to 12 years of protection) are among these methods not typically used by Hispanic women. Interestingly, almost half of the participants in this study had never heard of these methods. More research involving nationally representative data is needed to examine how young-adult Hispanic males compare to other racial and ethnic groups in the United States in regards to contraceptive knowledge and awareness disparity. This issue may stem from common myths and misinformation about hormonal contraception that have been identified within the Hispanic culture across numerous studies (Branch et al., 2010; Kissinger et al., 2012; Organista et al., 2013; and Rocca et al., 2012). More

research is required to examine the influence of factors related to levels of acculturation, socioeconomic status, sexual identity, marital status, and age among Hispanic men.

Common myths about hormonal contraceptive safety identified among this culture in previous studies (Branch et al., 2010; Kissinger et al., 2012; Organista et al., 2013; and Rocca et al., 2012) were also identified as beliefs among participants in this study. The six knowledge items addressed beliefs about contraceptive safety, effectiveness, proper use, and long-term side effects. Contrary to the literature addressing adult contraceptive knowledge, participants in this study exhibited an adequate understanding of contraceptive effectiveness and proper use in the terms of the three items addressing common misconceptions about such factors. However, misinformation regarding hormonal contraceptive safety and side effects in particular, as discovered in the literature with Hispanic adults, was confirmed as prevalent among this study group as well. Few participants received most of their contraceptive information from credible sources such as a medical professional (9.6%), therefore it should be noted that participants who received information from family members and social networks may have been at risk for receiving misinformation or myths about hormonal contraceptives causing cancer and infertility, etc. Almost one-third of the sample (28.5%) identified school as the primary source of contraceptive information, so it can also be suggested that curricula used in U.S. schools are failing to dispel these misconceptions as well. Previous research has confirmed insufficiencies in Texas public school sexuality education curricula (Wiley and Wilson, 2009), but additional research is needed to determine specific school districts and health curricula from where participants received inadequate contraceptive information.

While some misinformation may be delivered to young Hispanic males via friends and family members (Garcés-Palacio et al., 2008; Kissinger et al., 2012; Organista et al., 2013; and Venkat et al., 2008) seeking contraceptive information from these personal sources did present positive effects. Fathers, friends, and extended family members serving as primary contraceptive information sources had a positive impact on attitude and perceived control. These findings add to the notion that *familismo* remains extremely important to this culture in regards to comfort levels with the idea of family planning and partner communication. Although there was a disparate sample of participants identifying their father as a primary information source ($N = 9$), parental communication about contraception among Hispanic males, while scarce, still extracted a significant positive impact on attitude as opposed to all other information sources listed. No significant impact was detected on participant attitudes in the case of mothers being the primary source of information, but participant knowledge being positively associated with mother's education level is worth noting and is also supported in the literature (Nadeem et al., 2006; and Rios-Ellis et al., 2011).

Bronfenbrenner (1994) developed the idea that Microsystems exist in families. These Microsystems refer to "a pattern of activities, social roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit engagement in ... complex interaction with, and activity in, the immediate environment" (Bronfenbrenner, 1994, p. 39). The Hispanic cultural factors explored in this study outline a clear representation of the familial microsystem Bronfenbrenner describes, but this study ultimately focused on a unique microsystem communication pattern among

Hispanic male college students. The results from this study indicate that for the majority of participants, the stigma of talking about sexual health topics with parents specifically still exists, but is circumvented by other channels within the family microsystem. Social capital, defined as “the actual or potential resources which are linked to possession of a durable network of...relationships of mutual acquaintance and recognition,” is a function of family dynamics (Bourdieu, 1986, p. 51). Researchers argue that marginalized populations may benefit more from social capital by using it to counter the effects of discrimination and institutional neglect (Gonzalez et al., 2003; and Bregman, 2010). The stronger and greater number of family relationships, the more social capital is in place. Higher levels of social capital, in turn, tend to elevate educational achievement as well (Putnam, 2000).

These findings highlight the importance of parental involvement in fostering a positive perspective on partner communication among this population. In addition, this type of communication adds to the “normalizing” of sexual health conversations within families, as well as between sexual partners. Participants who view their fathers as supportive and their mothers as knowledgeable were more likely to intend to address contraception use with sexual partners. Strong social networks, as discovered in previous studies (Kissinger et al., 2012; Rhodes et al., 2012), was also shown to be instrumental in elevating participants’ comfort level and self-efficacy to communicate with sexual partners about contraceptive use. The lack of statistical significance found concerning non-personal primary sources of information, such as the media, once again emphasizes the importance of *familismo*, as well as suggests that knowledge alone is not a valuable predictor of behavioral intention among this group.

Limitations

This study's findings may not be generalizable to all young-adult Hispanic males due to the sample consisting of enrolled college students only. Similarly, results may not be representative of the nation's Hispanic male college student population considering the non-randomized sample was drawn from one university in south-central Texas. In addition, because this study was ultimately developed with the issue of unplanned pregnancy prevention in mind, findings may not be generalizable to Hispanic male college students across the spectrum of sexual orientation. Future studies should focus on the recruitment of a more general, randomized Hispanic male college student sample, as well as ensure that all survey items are applicable to participants of different sexual orientations.

Finally, because there was no exploration of past behaviors or post-assessment behaviors, it is important to acknowledge that this study only evaluated intentions to communicate with partners about contraceptive use. Future research should include an intervention with pre- and post-assessments to explore behaviors associated with partner communication regarding contraceptive use.

Conclusions

This study was designed to determine the impact of cultural factors such as traditional gender roles and parental involvement on Hispanic male college students' intentions to communicate with sexual partners about contraceptive use. These findings contribute to the limited knowledge base about sexual health among young adult

Hispanic males in particular. This study also assists in exploring the disconnect often seen in male to female communication about sexual health among the Hispanic population that has been identified in the literature.

The results from the knowledge portion of this study clearly outline specific misconceptions about hormonal contraception that need to be rectified in this population. Being that Texas State University is a Hispanic-serving institution, campus health centers of demographically-similar institutions can utilize this information when developing student outreach programs. Educators, healthcare providers, and the media would be other appropriate outlets in which to address these topics, but cultural relevance and competency is crucial in order to successfully permeate the Hispanic population. Because family members and close friends are more trusted sources of information, Spanish-language educational materials, resources, and media campaigns must be easily accessible to these groups as well. Basic contraceptive information, with an emphasis on dispelling common myths, may help to break the cycle of misinformation within this culture.

The results of this study consistently emphasize the importance of support from family members and close friends to this sample's attitudes and intentions to communicate with partners about contraceptive use. Curriculum developers, educators, and community outreach specialists should integrate more parental involvement activities and programs into Hispanic sexual health improvement efforts. The focus of these efforts must also be shifted to equally address male responsibility as well as female responsibility in the realm of sexual health and unplanned pregnancy prevention. As Hispanic men become more empowered to contribute to contraceptive use decisions, the

effects of traditional *machismo* and *marianismo* attitudes may subside, resulting in an improvement of the health of the Hispanic population as a whole. The literature surrounding *machismo* and male protectiveness, along with the findings in this study regarding the positive influence of two or more siblings on intentions suggest this population may benefit from programs emphasizing the importance of the male's role in contraceptive knowledge and communication in regards to decision making.

APPENDIX SECTION

APPENDIX A: SURVEY

Knowledge and Attitudes about Contraception Survey

KEY TERMS

Hormonal contraceptive methods: Protect against pregnancy only. Methods include oral contraceptives (the pill), the patch, NuvaRing™, hormone injections (Depo-Provera™), implants (Implanon™), intrauterine devices (IUD), and emergency contraception (PlanB™).

Barrier contraceptive methods: Protect against pregnancy and STDs. Methods include condoms (male/female), diaphragm, sponge, and cervical cap.

KNOWLEDGE: This section of the survey contains questions regarding your knowledge about contraception. Remember, you are participating in this survey anonymously, so please answer to the best of your abilities and do not include your name on this survey. Please circle your response.

1. Vaseline™ and baby oil are products that should be used with latex condoms.

True False Not sure

2. If a woman takes hormonal contraceptives, she will be 100% guaranteed to not get pregnant.

True False Not sure

3. Hormonal contraceptives prevent pregnancy immediately after the female takes her first dose.

True False Not sure

4. Hormonal contraceptives are safe for women.

True False Not sure

5. If a female uses hormonal contraceptives for a long period of time, she may not be able to get pregnant.

True False Not sure

6. Hormonal contraceptives can cause cervical cancer.

True False Not sure

7. Have you heard of these contraceptive methods?

Birth control pills	Yes	No	Not sure
Condoms	Yes	No	Not sure
IUD (Intrauterine Device)	Yes	No	Not sure
Depo-Provera™ shot	Yes	No	Not sure
Sterilization or tubal ligation	Yes	No	Not sure
Emergency Contraception (PlanB™)	Yes	No	Not sure
Norplant™ implant (in the arm)	Yes	No	Not sure
Diaphragm	Yes	No	Not sure
NuvaRing™	Yes	No	Not sure

8. I have received most of my contraceptive information from (circle one):

1=School 2=Mother 3=Father 4=Friends/other family members

5=Media (online, tv, etc.) 6=Medical professional 7=Other

ATTITUDES: You will now be asked questions about your attitudes toward contraceptive use in the context of a sexual relationship. On a scale of 1 to 7, circle the number that best reflects your attitude.

9. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Unpleasant 1 2 3 4 5 6 7 Pleasant

10. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Harmful 1 2 3 4 5 6 7 Beneficial

11. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Unsatisfactory 1 2 3 4 5 6 7 Satisfactory

12. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Bad 1 2 3 4 5 6 7 Good

13. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Unenjoyable 1 2 3 4 5 6 7 Enjoyable

14. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Negative 1 2 3 4 5 6 7 Positive

15. If I were to discuss contraception with my sexual partner(s) at least once during the next 3 months, it would be...

Unfavorable 1 2 3 4 5 6 7 Favorable

Subjective Norm

16. Most people I know discuss contraception with their sexual partner(s).

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

17. People who are important to me think I _____ discuss contraception with my sexual partner(s) at least once during the next 3 months.

Should Not 1 2 3 4 5 6 7 Should

18. People who are important to me would _____ of me discussing contraception with my sexual partner(s) at least once during the next 3 months.

Not Approve 1 2 3 4 5 6 7 Approve

19. People who are important to me want me to discuss contraception with my sexual partner(s) at least once during the next 3 months.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

20. I feel under social pressure to discuss contraception with my sexual partner(s) at least once during the next 3 months.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Perceived Behavioral Control

21. It is mostly up to me whether or not I discuss contraception with my sexual partner(s) at least once during the next 3 months.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

22. How much personal control do you feel you would have over whether or not you discuss contraception with your sexual partner(s) at least once during the next 3 months?

Absolutely No Control 1 2 3 4 5 6 7 Complete Control

23. The number of events outside my control which could prevent me from discussing contraception with my sexual partner(s) at least once during the next 3 months...

Very Few 1 2 3 4 5 6 7 Numerous

24. How much control do you have over whether you do or do not discuss contraception with your sexual partner(s) at least once during the next 3 months?

Very Little Control 1 2 3 4 5 6 7 Complete Control

25. If I wanted to, I could easily discuss contraception with my sexual partner(s) at least once during the next 3 months.

Extremely Unlikely 1 2 3 4 5 6 7 Extremely Likely

26. For me, discussing contraception with my sexual partner(s) at least once during the next 3 months would be...

Difficult 1 2 3 4 5 6 7 Easy

27. How much control do you have over discussing contraception with your sexual partner(s) at least once during the next 3 months?

Absolutely No Control 1 2 3 4 5 6 7 Complete Control

28. What is the likelihood that if you tried you would be able to discuss contraception with your sexual partner(s) at least once during the next 3 months?

Unlikely 1 2 3 4 5 6 7 Likely

29. How certain are you that you can discuss contraception with your sexual partner(s) at least once during the next 3 months?

Not At All Certain 1 2 3 4 5 6 7 Very Certain

30. For me to discuss contraception with my sexual partner(s) at least once during the next 3 months would be...

Extremely Difficult 1 2 3 4 5 6 7 Extremely Easy

Behavioral Intention

31. I intend to discuss contraception with my sexual partner(s) at least once during the next 3 months.

Definitely Do Not 1 2 3 4 5 6 7 Definitely Do

32. I want to discuss contraception with my sexual partner(s) at least once during the next 3 months.

Definitely Do Not 1 2 3 4 5 6 7 Definitely Do

33. I plan to discuss contraception with my sexual partner(s) at least once during the next 3 months.

Definitely Do Not 1 2 3 4 5 6 7 Definitely Do

DEMOGRAPHIC INFORMATION

34. Age: _____

35. Marital Status

1=Single 2=Married 3=Cohabitating (living with sexual partner) 4=

Other

36. Family Composition: number of siblings

1= None 2= One 3= Two 4= Three 5= Four or
more

37. Father's education:

1= Less than high school

2= High school diploma/ GED

3= Some college

4= College degree

38. Mother's education:

1= Less than high school

2= High school diploma/ GED

3= Some college

4= College degree

39. In what religious tradition were you raised?

1=Catholic 2= Protestant 3= Jewish 4= None 5= Other

40. What religion do you currently practice?

1=Catholic 2= Protestant 3= Jewish 4= None 5= Other

41. How often do you attend religious services? (Go to church, etc.)

1= Never 2= A few times per year 3= Monthly 4= Weekly or more

42. Were you born in the U.S.?

1= Yes 2= No

43. If NO, at what age did you come to the U.S.? Age: _____

44. Do you speak Spanish?

1= Yes 2= No

45. If YES, how fluent are you?

Not very 1 2 3 4 5 6 7 Completely

46. Are you an active member of any academic or social organizations on campus?

1= Yes 2= No

47. If so, how many?

1= One 2= Two 3= Three or more 4= None

Thank you for participating in this survey!

APPENDIX B: CONSENT FORM

Date

Dear Student,

You have been selected to participate in a research study that will explore knowledge and attitudes about contraception. The purpose of this study is to analyze the cultural factors that have an impact on Hispanic male contraceptive knowledge, attitudes, and use. You were identified as a potential subject for this study due to your membership in a Hispanic-serving organization on the Texas State University campus, or by a member of one of these groups. This study is being conducted by Koreena Villarreal, a graduate student in the Health and Human Performance Department at Texas State.

Considering the nature of the survey questions, a minimal perceived risk of emotional discomfort is possible. The benefit from participating in this study is your contribution to the growing body of knowledge on this topic. Participation in this study is completely voluntary and all responses will be kept anonymous. You may withdraw from the study at any time. Here is an example of the types of questions you will be asked:

1. Discussing contraceptive use with my partner before having sex will reduce the risk of an unplanned pregnancy. (Circle one number)

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

The survey contains 47 items and will take approximately 5-10 minutes to complete. Once you have completed and returned the survey, you will be compensated with a voucher for one free sub (\$4.59) at either San Marcos Jimmy John's Gourmet Sandwich locations.

If you feel the need to seek counseling due to your experience taking this survey, here is a list of resources nearby:

- Texas State University Health Center (free to students)-
[\(512\) 245-2161](http://www.healthcenter.txstate.edu/SERVICES/services.html#Mental_Health)
- Shieb Mental Health Center - [\(512\) 392-7151](http://www.hillcountry.org/default.asp)
- Austin Travis County Integral Care - [\(512\) 774-6794](http://behavioralhealthaustin.com/)

If you have any questions or would like a copy of the final report of this project, you may contact Koreena Villarreal (ky1065@txstate.edu) or Dr. David Wiley (davidwiley@txstate.edu). This project [IRB Reference Number 2013W8218] was approved by the Texas State IRB on October 8, 2013. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Jon Lasser (512-245-3413 - lasser@txstate.edu) and to Becky Northcut, Director, Research Integrity & Compliance (512-245-2314 - bnorthcut@txstate.edu). This study is being funded solely by the researcher. By completing this survey and signing this form, you are confirming that you are at least 18 years old and are consenting to participate in this study. Thank you for your time and contribution.

Sincerely,

Koreena Villarreal
Researcher

Signature _____
Date _____

Participant Name (please print)

Signature _____

Date _____

REFERENCES

- Bocanegra, H. T., Rostovtseva, D, Cetinkaya, M., Rundel, C., Lewis, C. (2011). Quality of reproductive health services to limited English proficient patients. *Journal of Health Care for the Poor and Underserved*, 22, 1167-1178.
- Bogue, D. J. (2011). Contraception, attitude-practice, and fertility differentials among US Hispanic, African-American and white women. *Journal of Population Research*, 27, 275-292.
- Branch, M., Harvey, S. M., Zukoski, A. P., Warren, J. (2010). Prevention of unintended pregnancy and HIV/STIs among Latinos in rural communities: perspectives of health care providers. *Health Care for Women International*, 31, 718-736.
- Bregman, A. B. (2010). *Educational aspirations: Supporting college trajectories for Latino youth*. (Doctoral dissertation). Department of Education and Psychology, University of Michigan.
- Bronfenbrenner, U. (1994). Ecological models of human development. *International Encyclopedia of Education*, 3(2), 37-43.
- Colarossi, L., Billowitz, M., Breitbart, V. (2010). Developing culturally relevant educational materials about emergency contraception. *Journal of Health Communication*, 15, 502-515.

Courtenay, W. H. (2000). Constructions of masculinity and their influence on men's well-being: A theory of gender and health. *Social Science and Medicine*, 50, 1385-1401.

Garcés-Palacio, I. C., Altarac, M., Scarinci, I. C. (2008). Contraceptive knowledge and use among low-income Hispanic immigrant women and non-Hispanic women. *Contraception*, 77, 270-275.

Glanz, K., Rimer, B. K., Viswanath, K. (2008). *Health behavior and health education: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.

Guilamo-Ramos, V., Dittus, P., Jaccard, J., Goldberg, V., Casillas, E., Bouris, A. (2006). The content and process of mother-adolescent communication about sex in Latino families. *Social Work Research*, 30(3), 169-181.

Guilamo-Ramos, V., Jaccard, J., Dittus, P., Bouris, A., Gonzales, B., Casillas, E., Banspach, S. (2011). A comparative study of interventions for delaying the initiation of sexual intercourse among Latino and black youth. *Perspectives on Sexual and Reproductive Health*, 43(4), 247-254.

Jones, R. P., Cox, D. (2012). Religion, values, and experiences: Black and Hispanic American attitudes on abortion and reproductive issues. *Public Religion Research Institute*, 1-39.

Kalmuss, D., Armstrong, B., Franks, M., Hecker, G., Gonzalez, J. (2008). Evaluation of a community-based sexual health intervention for young adult Latino and African-American men. *Journal of Men's Health*, 5(4), 318-326.

Kissinger, P., Kovacs, S., Anderson-Smits, C., Schmidt, N., Salinas, O., Hembling, J., Beaulieu, A., Longfellow, L., Liddon, N., Rice, J., Shedlin, M. (2011). Patterns and predictors of HIV/STI risk among Latino migrant men in a new receiving community. *AIDS Behavior*, 16, 199-213.

Knipper, E., Rhodes, S. D., Lindstrom, K., Bloom, F. R., Leichliter, J. S., Montano, J. (2007). Condom use among heterosexual immigrant Latino men in the southeastern United States. *AIDS Education and Prevention*, 19(5), 436-447.

Lee, J., Hahn, C. H. (2009). Acculturation and sexual risk behaviors among Latina adolescents transitioning to young adulthood. *Journal of Youth Adolescence*, 39, 414-427.

Lesser, J., Koniak-Griffin, D., Huang, R., Takayanagi, S., Cumberland, W. G. (2009). Parental protectiveness and unprotected sexual activity among Latino adolescent mothers and fathers. *AIDS Education and Prevention*, 21(B), 88-102.

McEachan, R. R. C., Conner, M., Taylor, M. J., Lawton, R. J. (2011). Prospective prediction of health-related behaviours with the theory of planned behavior: A meta-analysis. *Health Psychology Review*, 5(2), 97-144.

Morales-Campos, D., Markham, C., Peskin, M. F., Fernandez, M. E., (2012). Sexual initiation, parent practices, and acculturation in Hispanic seventh graders. *Journal of School Health*, 82(2), 75-81.

Nadeem, E., Romo, L., F., Sigman, M. (2006). Knowledge about condoms among low-income pregnant Latina adolescents in relation to explicit maternal discussion of contraceptives. *Journal of Adolescent Health*, 39, 119.e9- 119.e15.

Organista, K. C., Worby, P. A., Quesada, J., Arreola, S. G., Kral, A. H., Khoury, S. (2013). Sexual health of Latino migrant day labourers under conditions of structural vulnerability. *Culture, Health & Sexuality: An International Journal for Research and Care*, 15(1), 58-72.

Planned Parenthood Federation of America, Inc. (2014). Info for teens. Retrieved from:
<http://www.plannedparenthood.org/teens/sex/whats-sex>.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

Raosoft (2004). Sample size calculator. Retrieved from:
<http://www.raosoft.com/samplesize.html>.

Rhodes, S. D., Daniel, J., Alonzo, J., Vissman, A. T., Duck, S., Downs, M., Gilbert, P., A. (2012). A snapshot of how Latino heterosexual men promote sexual health within their social networks: Process evaluation findings from an efficacious community-level intervention. *AIDS Education and Prevention*, 24(6), 514-526.

- Rios-Ellis, B., Canjura, A. C., Garcia, M., Korosteleva, O., Nguyen-Rodriguez, S., Espinoza, L., Bird, M., Malotte, K. C. (2011). Rompe el silencio (break the silence)- increasing sexual communication in Latina intergenerational family dyads. *Hispanic Health Care International*, 9(4), 174-185.
- Rocca, C. H., Harper, C. C. (2012). Do racial and ethnic differences in contraceptive attitudes and knowledge explain disparities in method use? *Perspective on Sexual and Reproductive Health*, 44(3), 150-158.
- Sable, M. R., Campbell, J. D., Schwartz, L. R., Brandt, J., Dannerbeck, A. (2006). Male Hispanic immigrants talk about family planning. *Journal of Health Care for the Poor and Underserved*, 17, 386-399.
- Sahin, N. H., Gungor, I., Karabulutlu, O. A., Demirci, N. (2008). Male participation in contraception in an eastern province of Turkey. *Journal of Family and Reproductive Health*, 2(3), 129-137.
- Seal, P. S., Garces-Palacio, I. C., Halanych, J. H., Scarinci, I. C. (2012). Sexual health knowledge of male and female Latino immigrants. *Journal of Immigrant Minority Health*, 14, 673-681.
- Shih, G., Vittinghoff, E., Steinauer, J., Dehlendorf, C. (2011). Racial and ethnic disparities in contraceptive method choice in California. *Perspectives on Sexual and Reproductive Health*, 43(3), 173-180.

Tavakol, M., Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53-55.

Taylor, R. (1990). Interpretation of the correlation coefficient: A basic review. *Journal of Diagnostic Medical Sonography*, 1(6), 35-39.

U.S. Census Bureau (2011). *Hispanic origin*. Retrieved from
<http://www.census.gov/population/hispanic/>.

Venkat, P., Masch, R., Ng, E., Cremer, M., Richman, S., Arslan, A. (2008). Knowledge and beliefs about contraception in urban Latina women. *Journal of Community Health*, 33, 357-362.

Wiley, D.C. and Wilson, K.L. (2009). Just say don't know: Sexuality education in Texas public schools. *Texas Freedom Network Education Fund*.

Wilson, E. K. (2009). Differences in contraceptive use across generations of migration among women of Mexican origin. *Maternal and Child Health Journal*, 13, 641-651.

Winett, L., Harvey, S. M., Branch, M., Torres, A., Hudson, D. (2011). Immigrant Latino men in rural communities in the northwest: Social environment and HIV/STI risk. *Culture, Health & Sexuality: An International Journal for Research and Care*, 13(6), 643-656.

Wingood, G. M., DiClemente, R. J., Villamizar, K., Deja, L., DeVarona, M., Taveras, J., Painter, T., Lang, D. L., Hardin, J. W., Ullah, E., Stallworth, J., Purcell, D., Reynald, J. (2011). Efficacy of a health educator-delivered HIV prevention intervention for Latina women: a randomized control trial. *American Journal of Public Health, 101*(12), 2245-2252.

Zukoski, A. P., Harvey, S. M., Oakley, L., Branch, M. (2011). Exploring power and sexual decision making among young Latinos residing in rural communities. *Women's Health Issues, 21*(6), 450-457.