

FEMALE ASIAN-AMERICAN COLLEGE STUDENTS' ATTITUDES & CULTURAL
BELIEFS ABOUT OBTAINING PAPANICOLAOU TESTS

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FEMALE ASIAN-AMERICAN COLLEGE STUDENTS' ATTITUDES & CULTURAL
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ABSTRACT

FEMALE ASIAN-AMERICAN COLLEGE STUDENTS' ATTITUDES & CULTURAL BELIEFS ABOUT OBTAINING PAPANICOLAOU TESTS

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Cervical cancer is a major health disparity found among Asian-American women. This study utilized the Theory of Reasoned Action as the framework to assess Asian-American female students' attitudes, beliefs, and intentions regarding Papanicolaou (Pap) test. A purposive sample of 11 female students participated in a demographic survey and a one-on-one interview in May 2011. The survey addressed demographic information such as age and current student classification. The one-on-one interviews were conducted by the principal investigator and consisted of nine open ended questions. The purpose of this study was to explore variables that could potentially affect female Asian-American college students' intentions of obtaining Pap tests. The majority of respondents had common misconceptions about Pap tests. In addition, many had positive feelings towards the test and felt comfortable talking with their parents about the topic of cervical cancer

screenings. All participants shared the same belief that abstinence is highly valued in their cultures. Results indicated that although Asian-American females' attitudes and subjective norms played a role in their decision to obtain a Pap test, 63.6% of participants had no intention of scheduling a Pap test within a year. Health promotion on college campuses should be considered in order to increase awareness of cervical cancer screenings and HPV for the young Asian-American population.

Key words: Theory of Reasoned Action, Behavioral Intention, Attitude, Subjective Norm, Asian-American, Papanicolaou (Pap) test.

CHAPTER I

INTRODUCTION

Introduction

Cervical cancer accounts for six percent of all cancers and ranks ninth in incidence among women in the United States (McMullin, De Alba, Chavez & Hubbell, 2005), yet cervical cancer was identified as one of the most successfully treatable cancers (Ma, Toubbeh, Wang, Shive, Cooper & Pham, 2009). The human papillomavirus (HPV) is detected in approximately all cervical cancers (Cermak, Cottrell & Murnan, 2010). Studies regarding sexually active college students reported that most students have limited knowledge of HPV, are unaware of HPV, and are not engaging in safe sex practices that can reduce their risk of contracting HPV (D'Urso, Thompson-Robinson & Chandler, 2007).

In this study, the principal investigator examined female Asian-American college students' attitudes and cultural beliefs about obtaining a Papanicolaou (Pap) test. Both qualitative and quantitative methods were assessed in the form of a demographic survey instrument, as well as one-on-one interviews. Issues such as parental communication, sexual health, STDs, screening behaviors, and cultural beliefs were assessed. Theory of Reasoned Action served as the framework for this study based on the students' attitudes,

beliefs, and intentions regarding Pap tests. The study explored variables that affect female Asian-American college students' attitudes and beliefs associated with Pap tests.

Significance of Problem

The Human Papillomavirus (HPV) infection of the genital tract is one of the most common sexually transmitted diseases, and specific strains of the virus are directly associated with cervical cancer (Baer, Allen & Braun, 2000). It is estimated that approximately three out of every four American women between the ages of 15 and 49 will be infected with genital HPV in the course of their lifetime (Cermak, et al., 2010). Second to breast cancer, cervical cancer is the most commonly occurring cancer in women worldwide, and claims 250,000 lives a year. Approximately 20 million Americans are currently infected with HPV and an estimated 6.2 million cases occur annually (Sandfort & Pleasant, 2009).

The age-adjusted incidence rate for cervical cancer is 9.3 per 100,000 for all Asian-American and Pacific Islander women (Ma, et al., 2009). Mortality rate reached 2.7 per 100,000 persons for cervical cancer (Yu, Kim, Chen & Brintnall, 2001). High rates of infection of HPV are found among college students in their 20s. Depending on the population evaluated, studies have shown that 10 to 40 percent of all sexually active women are infected with HPV at any given point in time. Other studies have also found a 70% or greater potential lifetime risk of being infected with HPV (Lambert, 2001).

According to the U.S. Census Bureau, the Asian-American population is the fastest growing ethnic population in the United States (U.S. Census, 2010). Although there have been decades of progress in the prevention and early detection of cancer in the United States, disparities among ethnic and racial minorities persist. The mortality rates

of cancer are often higher in ethnic minorities than Caucasians. For Asian-American women, cancer continues to be the leading cause of death (Lee-Lin, Pett, Menon, Lee, Nail, Mooney & Itano, 2007).

Rationale

Nearly 15 million students are enrolled in 4,048 colleges and universities in the United States, and approximately 57 percent are aged between 18 and 24 years (Koumans, Sternberg, Motamed, Kohl, Schillinger & Markowitz, 2005). Experts have identified both men and women ages 20-24, as the highest risk for HPV, especially if they attend college (D'Urso, et al., 2007). The college population is thought of as a high-risk population in regard to sexual behaviors and sexually transmitted infections (Sandfort & Pleasant, 2009).

According to the American College Health Association Task Force on National Health Objectives, sexually transmitted infections have been identified as priority health-risk behavior areas. The goal of this task force is to increase the proportion of college students who receive information on STD prevention from their college or university (McPartland, Weaver, Lee & Koutsky, 2005). One of the most important activities for prevention of cervical cancer is a routine Pap test. Screenings such as this can prevent the progression of HPV to cervical cancer, yet many men and women lack the knowledge to identify the link between a Pap test and the detection of cervical cancer (McPartland et al., 2005).

Although Pap tests are recommended for early detection of cervical cancer, many women fail to utilize this type of screening on a regular basis. Approximately 500,000 new cases of cervical cancer occur each year, wherein 260,000 of those cases are fatal

(Jones & Cook, 2008). Several studies have observed participation in Pap tests are low among minority women compared to Caucasians. In addition to common barriers such as health literacy, lack of access to healthcare, and educational attainment, cultural barriers such as attitudes and beliefs can either encourage or discourage screening behavior (Chaudhry, Fink, Gelberg, & Brook, 2003; Coughlin & Robert, 2000; Juon, Seung-Lee, & Klassen, 2003; Lee & Vang, 2010; Lee-Lin et al., 2007; Lim, 2010; Tang, Solomon, Yeh & Worden, 1999; Taylor, Yasui, Burke, Nguyen, Acorda, Thai, Qu, & Jackson, 2004). Although there has been a significant decline in deaths related to cervical cancer due to routine Pap test screenings 77 percent of Asian-American women had the lowest screening rate of 66 percent receiving a Pap test within the previous three years (Lee-Lin, et al., 2007).

According to Census data, the Asian population grew faster than the total U.S. population between 1990 and 2000 (US Census, 2010); furthermore, it is estimated eight percent of the United States population will consist of Asian-Americans by the year 2025 (Lee-Lin, et al., 2007). Of the Asian-American women diagnosed with cervical cancer, 36 percent of Chinese women, 25 percent of Filipino women, and 26 percent of Japanese women, will die from this disease (Tang, et al., 1999). In the U.S., Vietnamese women have the highest incidence rate among all other ethnic groups for cervical cancer (Okazaki, 2002). Variables such as barriers, attitudes, and cultural beliefs towards screening behaviors could cause major health implications for this population (Gor, Chilton, Camingue & Hajek, 2011).

One study interviewed health advocates and practitioners and found they both agreed that recent immigrants from Asia viewed a Pap test as inappropriate prior to

marriage, and found the procedure invasive (Okazaki, 2002). Because many Asian-American families are strict and traditional, the topic of sexuality is rarely discussed. Women in Asian-American cultures are expected to remain virgins until married; moreover, cultural norms in Asian-American societies, such as lack of communication with parents on sexual topics, can cause barriers to young adults' health, as well as a statistically misrepresented population (Tang, et al., 1999).

Acculturation is also a barrier to the Asian-American population when it comes to screening behaviors (Tang, et al., 1999). Tang et al. defines acculturation as "how one's attitude, beliefs and behaviors change in relation to the dominant society". Many young Asian-Americans' culture today consists of American influence and the influence of familial origin. A study found that college women of Asian descent who were more likely to obtain a Pap test if they were more "Americanized". This study also found that although acculturation predicts the likelihood of one participating in a Pap test, it did not account for the participants' values, behavioral competencies, and self-perceived identity. Young Asian-Americans are largely influenced by their family, peers, country of birth, and traditional cultural involvement (Tang, et al., 1999).

Several studies regarding barriers to cervical cancer screenings found reoccurring themes such as lack of knowledge on HPV, low perceived severity of HPV and other STDs, and insufficient educational and informational sources available to the population (D'Urso et al., 2007; Garcia, Becker Tatum, Aldrich, & Fernandez-C, 2007; Holcomb et al., 2004; Koumans et al., 2005; Lambert, 2000; McPartland et al., 2005; Sandfort & Pleasant, 2009). Other studies also suggested factors such as low income, marital status, and acculturation serve as other barriers that affect cervical cancer screening rates

(Chaudhry et al., 2003; Coughlin & Robert, 2000; Lee & Vang, 2010; Lee-Lin et. al., 2007; Lim, 2010; Tang et al., 1999; Taylor et al., 2004). With HPV directly linked to almost all cases of cervical cancer, it is imperative that the general public becomes more aware about HPV (Sandfort & Pleasant, 2009). One objective of Healthy People 2020 encompassing cervical cancer screenings is to increase the proportion of women who receive a Pap test based on the most recent guidelines. Based on the most recent guidelines in 2008, 84.5 percent of women 21 to 65 received a Pap test. Healthy People 2020 aims to increase screening of women to 93 percent (Healthy People, 2011).

There is a lack of health-related data about the Asian-American population. This inadequate information is a direct result from the small sample of this population in national data systems. The Asian-American population consists of over two dozen diverse cultures, and because the lack of health-related data, some subgroups of this population are reluctant to participate in research studies (Grunbaum, Lowry, Kann & Pateman, 2000). Future research needs to examine possible interventions that reflect the needs of this under represented population [Asian-American youth in the U.S.], as well as promote prevention behavior successfully in different cultures (Tang, et al., 1999).

Research Questions

1. What are female Asian-American college students' attitudes on Papanicolaou (Pap test) screenings?
2. What are the cultural beliefs of female Asian-American college students about Pap tests?

Assumptions

One assumption for this study was that all participants would understand the terms and questions being asked during the interviews. It was also assumed that the participants would be honest and answer the interview questions as thoroughly as possible. Finally, because the participants come from various Asian backgrounds, variations in cultural beliefs were assumed.

Limitations and Delimitations

A limitation in this study was the use of a purposeful sample. The participants were voluntary and were members of intact groups such as Asian sororities or cultural clubs. Another limitation may be false reporting due to social desirability. Delimitations to the study included the fact that participants were selected from only one university in Texas; therefore, results may not be generalized to all Asian-American college populations.

Theoretical Background

The Theory of Reasoned Action (TRA) was the theoretical framework used in this study (see Table 1). TRA was developed in order to understand the relationship between a person's belief, attitude, and behavioral intention (Glanz, Rimer & Lewis, 2002). This study examined how the constructs of the TRA determine the likelihood of the participant to obtain a Pap test.

Table 1
Theory of Reasoned Action (TRA) Constructs and Definitions

| Construct | Definition |
|----------------------|--|
| Behavioral Intention | Perceived likelihood of performing the behavior |
| Attitude | |
| Direct Measure: | Overall evaluation of the behavior |
| Indirect Measure: | |
| Behavioral Belief | Belief that behavioral performance is associated with certain attributes or outcomes |
| Evaluation | Value attached to a behavioral outcome or attribute |
| Subjective Norm | |
| Direct Measure: | Belief about whether most people approve or disapprove of the behavior |
| Indirect Measure: | |
| Normative Belief | Belief about whether each referent approves or disapproves of the behavior |
| Motivation to comply | Motivation to do what each referent thinks |

Note. From *Health Behavior and Health Education: Theory, Research, and Practice 3rd*

Edition (p. 69), by K. Glanz, B. Rimer, and F. Lewis, 2002, San Francisco, CA: Jossey-

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Key Terms

1. Theory of Reasoned Action (TRA): a behavior change theory that focuses on constructs that are concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior (Glanz, et al., 2002)
2. Behavioral Intention: one's perceived likelihood of performing the behavior (Glanz, et al., 2002)
3. Attitude: determined by the individual's beliefs about outcomes or attributes of performing the behavior weighted by evaluations of those outcomes or attributes (Glanz, et al., 2002)
4. Subjective Norm: belief about whether most people approve or disapprove of the behavior (Glanz, et al., 2002)
5. Normative belief: belief about whether each referent approves or disapproves of the behavior (Glanz, et al., 2002)
6. Human Papillomavirus (HPV): There are more than 100 HPV types. Some types cause infection on the skin and others cause infection on the mucosa. More than 40 mucosal HPV types are commonly found on the genitals and are transmitted primarily by sexual contact, most commonly sexual intercourse (Dunne, 2009).
7. Papanicolaou (Pap) test: looks for precancers, cell changes on the cervix that might become cervical cancer if they are not treated appropriately (CDC, 2011)
8. Acculturation: the process of adopting the cultural traits or social patterns of another group; how one's attitudes, beliefs and behaviors change in relation to the dominant society (Tang, et al., 1999)

9. Asian-American: citizen or resident of the United States of Asian birth or descent; includes more than 25 separate ethnicities (Lee-Lin, et al., 2007)
10. Healthcare: The prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical and allied health professions (The American Heritage Medical Dictionary, 2011).
 - a. Traditional eastern medicine: refers to traditional medical beliefs and practices used widely across East Asia and introduced into the western world as a form of alternative medicine [Example: Herbal Medicine & Acupuncture]
 - b. Western-style Medicine: refers to a doctor's office that practices evidence-based medicine [Example: US Board Certified Physician holding the credentials of MD or DO practice]
 - c. Clinic: an establishment where patients are admitted for study and treatment by a group of physicians practicing medicine together (The American Heritage Medical Dictionary, 2011).

CHAPTER II

LITERATURE REVIEW

Introduction

According to the Centers for Disease Control and Prevention (CDC), genital human papillomavirus (HPV) is the most common sexually transmitted infection. Most sexually active people in the United States will have HPV at some point in their lives. The prevalence of HPV among adolescents and young adults is a rising concern, regardless of ethnic background (Schiffner & Buki, 2006). Cervical cancer, in which HPV is linked to 99.7% of all cases (D'Urso, et al., 2007), is the second leading cause of cancer-related mortality in women worldwide (Baer, et al., 2000). This type of cancer is also a major health disparity among Asian-Americans, especially in Vietnamese women, with cervical cancer rates being significantly higher than the general US population. Chinese and Filipino women are documented as well for having high rates of invasive cervical cancer (Gor, et al., 2011).

Recent studies in the U.S. suggest that 60 percent of college-aged women are infected with the virus at any given time (Holcomb, Bailey, Crawford & Ruffin, 2004). Many studies of sexually active college students have shown most students have low levels of knowledge of the HPV infection, and are often unaware of HPV. In addition to lack of knowledge, unsafe sex practices increases the risk of contracting HPV within the college-aged population (D'Urso, et al., 2007).

Studies with Asian-American women indicate that lack of knowledge about Papanicolaou (Pap) testing and cervical cancer, no access to regular source of care, and cultural attitudes towards sexual activity are important factors associated with low rates of cervical cancer screening and rates of cervical cancer (Gor, et al., 2011).

Theory of Reasoned Action

According to the Theory of Reasoned Action, two things are considered to guide human action: the beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (behavioral beliefs/attitudes), and the beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs/subjective norm). Behavioral beliefs produce either a favorable or unfavorable attitude towards a behavior, whereas normative beliefs result in the perceived social pressure or subjective norm (Ajzen, 2006). Behavioral intention is the combination of a person's attitude towards performing a behavior and subjective norms (Roberto, Krieger, Katz, Goei, Jain, 2011). A visual representation of how the TRA is used in this study is shown in Figure 1 below.

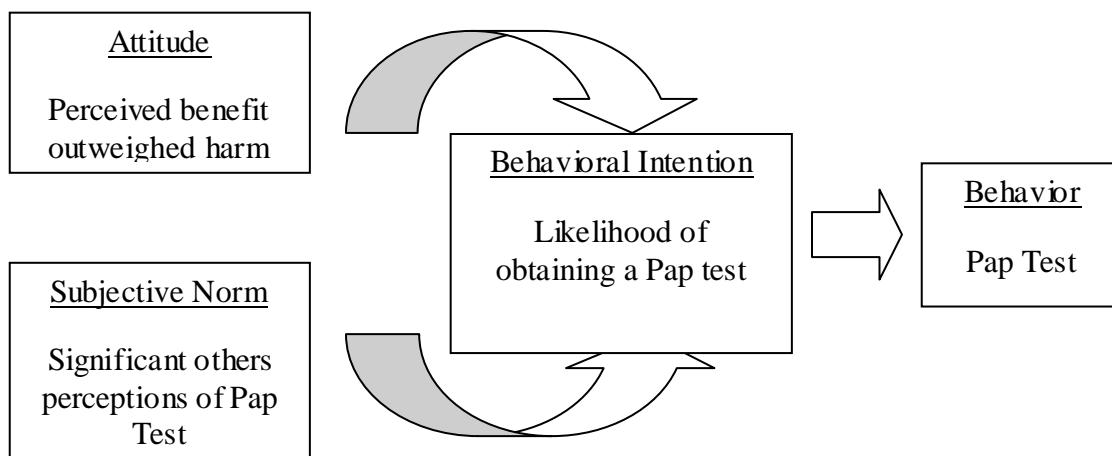


Figure 1 Theory of Reasoned Action

The Theory of Reasoned Action proposes that attitudes and subjective norms are positively and independently related to behavior intention, which in turn, is positively related to behaviors (Roberto, et al., 2011). When the attitude and the subjective norm are more favorable, the person's behavioral intention to perform the behavior in question is stronger (Ajzen, 2006).

Knowledge

In past years, many studies have proven there is a low level of awareness among young adults about the human papillomavirus, as well as poor knowledge about HPV symptoms and modes of transmission (Baer, et al., 2000; Bertram & Niederhauser, 2008; D'Urso, et al., 2007; Gor, et al., 2011; Holcomb, et al., 2004; Lambert, 2001; Pitts & Clarke, 2002; Vail-Smith & White, 1992; Yacobi, Tennant, Ferrante, Pal & Richard, 1999). A 2000 national survey found that less than one-third of the American population had ever heard of HPV, and only two percent knew the virus was a sexually transmitted

disease (STD) (Sandfort & Pleasant, 2009). Many studies have sought to examine college-aged adults' knowledge, risks, and behaviors in relation to the HPV infection.

Knowledge and Misconceptions of HPV

Although HPV is prevalent among college-aged adults, research has shown that most sexually active college students are often unaware of HPV and have limited knowledge of the infection (D'Urso, et al., 2007). Yacobi et al. conducted a study on 289 college students who responded to a questionnaire, wherein only 38 percent had heard of HPV prior to the survey. Sixty-eight percent of students, who were previously diagnosed with HPV, reported not knowing of HPV before their diagnosis (Yacobi, et al., 1999). Another study, which was conducted with black college students, found 64 percent had never heard of HPV prior to the survey. Of the remaining 36 percent who had heard of HPV, only 52 percent reported knowing what the virus was (D'Urso, et al., 2007). Vail-Smith's study resulted in 72 percent of the total sample that had never heard of HPV, or were not sure if they had heard of the virus (Vail-Smith, et al., 1992). When Bertram (2008) assessed the knowledge of college students in Hawaii, she found that 55.7 percent of the sample answered five or fewer HPV related questions correctly on a 14 question survey.

Some research on HPV shows that there are common misconceptions between the virus and other STDs (Mays, Zimet, Winston, Kee, Dickes & Su, 2000; Yacobi, et al., 1999). Possible symptoms from HPV can be confused with other STDs because many people are uninformed about the virus (Pitts & Clarke, 2002). A study found that 64 percent of participants were unsure if genital warts were caused by HPV, and 22 percent of participants believed genital warts were caused by the herpes virus (Yacobi, et al.,

1999). Mays (2000) examined the knowledge and beliefs of adolescent and adult women, and found that 12.5 percent of participants confused genital warts with herpes. One participant (adult) from the study stated “Well, I heard that genital warts come from herpes”. Another common misconception within the group was the association of soreness and pain with genital warts. Another study revealed that a small percentage of the participants associated the virus with “pelvic inflammatory disease” or as a yeast infection (Pitts & Clarke, 2002). In addition to the low-level of awareness, there is also poor knowledge about the modes of transmission in terms of HPV (Bertram & Niederhauser, 2008). There is a need to increase the knowledge about this prevalent STD in order to reduce the fear of the misunderstood or unknown among young adults (Sandfort & Pleasant, 2009).

Cervical Cancer Screenings and Asian-Americans

About 6.2 million people in the United States will contract HPV each year, and if left untreated, complications such as cervical cancer can result (Schiffner & Buki, 2006). Pap tests should be done routinely in sexually active females, so that physicians can detect any abnormalities that may occur. A study reported only 32.7 percent of respondents knew that a Pap test should be done on a woman under the age of 18 who has engaged in sexual intercourse for the first time (Vail-Smith & White, 1992). Progression to cervical cancer is approximately 100 percent preventable when cervical dysplasia is detected by a Pap test at an early stage (Schiffner & Buki, 2006). Cervical cancer screenings yield 92 percent effectiveness in women diagnosed with cervical cancer in relation to five year survival rates (Lim, 2010). Studies show that young women are unaware of the relationship between HPV and cervical cancer, as well as the results of an

abnormal Pap test (Bertram & Niederhauser, 2008; Holcomb, et al., 2004; Mays, et al., 2000; Pitts & Clarke, 2002; Yacobi, et al., 1999).

Although the prevalence rate of HPV is steadily increasing, knowledge about HPV and its relationship to cervical cancer remains fairly low. Due to the uncertainty and lack of understanding of what an abnormal Pap test means, many women experience distress when diagnosed (Bertram & Niederhauser, 2008). Gupta et al. 2002 found that 29 percent of the women in the study who had a Pap test did not know it was a screening for cervical cancer. In Bertram's study (2008), 41 percent of participants did not know that HPV was related to an abnormal Pap test. In another study, less than one-third of respondents knew that a Pap test could detect changes that could indicate the presence of HPV (Yacobi, et al., 1999). Holcomb reported that only 39 percent of the participants in his study knew that cervical cancer could result from HPV (Holcomb, et al., 2004), while only 11.3 percent of participants in Pitts's study were aware of this fact (Pitts & Clarke, 2002).

One study assessed participants' knowledge about HPV, Pap tests, and cervical cancer. Some findings from the female participants included: 1) cervical cancer is associated with multiple sex partners and sexual activities at a young age, 2) cervical cancer is rare and preventable, and 3) Asian women are impacted disproportionately. In relation to Pap tests, Vietnamese female participants had little or no knowledge, while Korean females felt the test was for those who were sexually active or after delivery of a baby. Filipina participants were able to provide more detailed descriptions of a Pap test. One Filipina stated, "The doctor does 3 swabs and sends it to lab for detection of any

abnormalities such as gonorrhea, chlamydia, etc.” while another one said “Pap test is used to determine the presence of HPV.” (Gor, et al., 2011).

Several studies show the poor understanding women have when it comes to HPV, pap smears, and cervical cancer (Bertram & Niederhauser, 2008; Holcomb, et al., 2004; Mays, et al., 2000; Pitts & Clarke, 2002; Yacobi, et al., 1999). In addition, minority populations are typically diagnosed at later stages of cancer, and generally have higher incidence and mortality rates for cervical cancer compared to European Americans (Lim, 2010). When viewing the rates of cervical cancer screening by various racial and ethnic groups, Asian-American women’s screening rate was the lowest in the United States at 68.4% (Ma, et al., 2009). Many studies have reported common barriers that Asian-American women experience in regards to obtaining a Pap test. Variables such as knowledge, education and language, as well as acculturation have repeatedly statistically significant barriers to cervical cancer screenings for this population (Juon, Seung-Lee, & Klassen, 2003; Lee & Vang, 2010; Lee-Lin, et al., 2007; Lim, 2010; Ma, et al., 2009; Taylor, Yasui, Burke, Nguyen, Acorda, Thai, Qu, & Jackson, 2004; Yu, et al., 2001).

Limited knowledge of cancer functions as a barrier to cancer screenings (Lee & Vang, 2010). Yu et al. (2001) conducted interviews on 332 Chinese-American women. This study found that slightly more than 50 percent of the women had ever heard of cancer screening tests such as clinical breast exams and Pap tests, and only 36.1 percent had actually undergone the Pap test. In a study conducted by Juon et al. (2003), of the 282 women who participated, 20.6 percent reported not knowing about Pap tests as a reason for lack of screening. Participants who had more knowledge of Pap test guidelines had more than three times greater odds of obtaining Pap test regularly (Juon, et al., 2003).

According to Nelson, Geiger & Mangione (2002), misconceptions about Pap tests such as cervical cancer screenings are only needed when gynecological problems such as abnormal bleeding occurs, were correlated with the delay of obtaining a Pap test. These investigators also found that Asian and Latina participants endorsed these misconceptions more than women from other ethnic backgrounds (Durvasula, Regan, Ureno & Howell, 2008). The understanding of HPV and cervical cancer could help women understand the importance of routine Pap tests. It is the early detection of HPV, via screenings, that will help prevent unnecessary consequences such as cervical cancer (Pitts & Clarke, 2002).

Attitude

According to the American Cancer Society (2005), despite the benefits of obtaining regular cervical cancer screenings, survey data indicated that approximately 14% to 26% of women living in the US have not had a Pap test within the past three years. Asian and Latina women are especially unlikely to obtain regular cervical cancer screenings, and therefore experience increased mortality and morbidity as a result of delayed detection and treatment (Durvasula, et al., 2008).

Behavioral Belief

Gupta et al. (2002) found the most common reason the majority of sexually active women had not obtained a Pap test was that it was perceived as unnecessary. The perceived lack of need for cervical cancer screening has been previously identified as a common reason by other ethnic groups (Gupta, Kumar, & Stewart, 2002). A study of 352 Vietnamese women reported that they perceived a Pap test as unnecessary if one is asymptomatic (17%), not sexually active (28%), or menopausal (22%) (Taylor, et al., 2004). It is suggested by some scholars that sexually active women may possess more

knowledge and hold more positive beliefs about gynecological screening procedures, thus may be more willing to obtain a Pap test (Durvasula, et al., 2008).

Sexual experience may also be a predictor of the likelihood of obtaining a Pap test. A study conducted on 272 women showed only 29.1 percent of Asians reported having had a Pap test. The Asian women who were sexually active were 18 times more likely to have undergone a cervical cancer screening than their inexperienced counterparts. Researchers suggest that women who are not sexually active may not find the need to obtain a Pap test given that the test is viewed as a means of detection of sexually transmitted conditions. Women may miss an important opportunity for early cancer detection if they view gynecological care as optional, or only as a necessity when one becomes sexually active (Durvasula, et al., 2008).

Susceptibility to HPV and STDs

The university population is at a high risk for STDs, including HPV, because the level of sexual activity in a given population is the main determinant in the infection rate (Vail-Smith & White, 1992). Many studies about HPV measured participants' views on the severity of the virus in relation to other common STDs. Research shows that participants perceive the severity and susceptibility of STDs as not serious (Baer, et al., 2000; Holcomb, et al., 2004; McPartland, et al., 2005; Schiffner & Buki, 2006; Yacobi, et al., 1999).

Holcomb asked participants to rate how worried they were about contracting the STDs listed in the study on a scale from 1 to 4, with 1 being not worried, and 4 being very worried. The mean of the worry rates ranged from 1.5 to 2 for all STDs listed, yet regardless of the STD, the average worry rate was 1 (Holcomb, et al., 2004). Similar results were found in a study conducted by McPartland (2005) wherein participants were asked to rate their perceived severity of HPV on a scale of 1 to 5, the mean value was 2.4 for men, and 3.4 for women. Only a small percentage of respondents expressed concern about gonorrhea, chlamydia, and HPV, which are the most prevalent STDs in the United States (Baer, et al., 2000). When Schiffner (2006) interviewed a small group of Latina women, she found that 73 percent were “somewhat to not at all” concerned with acquiring HPV (Schiffner & Buki, 2006). Yacobi et al. (1999) reported only 21 percent of participants believed they were susceptible to the HPV infection.

Subjective Norm

Family influences and communication play a significant role in shaping appropriate sexual behavior in adolescents (Miller, 2002). Culture also provides a set of guidelines or scripts to young individuals to learn appropriate sexual responses (Bancroft, 2002). Few studies seek to examine the influence family, communication, and culture has on youth today (Bancroft, 2002; Lin, Chu & Lin, 2006; Miller, 2002; Okazaki, 2002; Schiffner & Buki, 2006; Tang, et al., 1999).

Normative Beliefs

In most Asian cultures, sexuality is viewed as a means of procreation. Many Asian cultures place an emphasis on moral and social conduct; therefore open expression about one’s sexuality is often unacceptable (Okazaki, 2002). Multiple studies found that

Asian Americans had significantly later sexual timetables for initiating all types of sexual behaviors in relation to other ethnic group (Grunbaum, et al., 2000; Okazaki, 2002).

When Asian American adolescents were compared to non-Asian Americans, they were more likely to think their parents and friends would disapprove of their actions, should they engage in intercourse.

Many parents avoid discussions about sexual issues with the members of their family, because of lack of knowledge on the issue, embarrassment of the topic, as well as the tension that can occur between the child and the parent. One study conducted in Taiwan found there are multiple correlations between sex knowledge, awareness of sexuality, attitude towards sex education, self-efficacy, and communication effectiveness. The majority of the participants from the study, approximately 80 percent, found the program to be helpful in being able to communicate with their children. Lin (2006) followed up on the program's effectiveness by interviewing six parents on their thoughts and opinions of the program. One parent stated "After I participated in this training, I could talk about more sex topics with my children...and we both felt pretty good". Parents who participated in the study had a great change in their attitude, and became more comfortable talking to their adolescents and other family members about sex-related topics (Lin, et al., 2006). Another study stated that parents' values as well as open communication can have an effect on the adolescents' intercourse experience. Enhancement of educational achievements, providing opportunities to develop social skills, as well as providing the child with a sense of worth can reduce teens' sexual behaviors (Miller, 2002).

Culture can influence behaviors, attitudes, and beliefs about health, and can either encourage or discourage screening behavior. Because pre-marital sex is greatly discouraged, this could serve as a barrier to Asian-American women being screened for preventive reasons (Tang, et al., 1999). Miller (2002) states that of the Asian American women diagnosed with cervical cancer, 36 percent of Chinese women, 25 percent of Filipino women, and 26 percent of Japanese women, will die from this disease. Tang (1999) conducted a study on 206 female students at a Northeastern university. Seventy-six percent of the subjects were Asian, and the remaining 24 percent were Caucasian. Only 32 percent of the Asian participants ever received a Pap test in comparison to the 70 percent of Caucasian participants. The study also revealed that Asian women were less open about their sexuality, less comfortable communicating with their mothers, less prevention-oriented, and less likely to utilize western medicine to promote their health. Tang (1999) also discussed the possible influence of acculturation into the American society, which may possibly affect the attitudes and behaviors of certain Asian-Americans.

Conclusion

An individual's psychological well-being is initially shaped by one's family environment. Ethnic socialization within the acculturation process in minority families is associated with demographic variables, parental attitudes, and quality of parent-child interaction. Parents' ethnic identity, experiences, and attitude are mirrored in the youth (Lo, 2010). Previous studies conducted on Asian and Pacific Islander women suggest that some communities may have substantial barriers to screening because of cultural and attitudinal factors (Coughlin & Uhler, 2000). Attitude and cultural beliefs toward cervical

cancer screenings can influence Asian-American women's health behaviors and decisions to undergo cancer screenings (Lee & Vang, 2010). Lee-Lin et al. (2007) suggests that regardless of the time spent in the US, the common beliefs and lack of knowledge Asian-American women share on cervical cancer will continue if not corrected.

CHAPTER III

METHODOLOGY

Purpose

The purpose of this study was to measure the participants' individual motivational factors to determine the likelihood that the participant would engage in obtaining a Pap test. The research questions for this study were devised in order to assess female Asian American college students' cultural beliefs and attitudes on Pap test screenings. The two research questions of this study were 1.) What are female Asian-American college students' attitudes on Papanicolaou (Pap test) screenings? 2.) What are the cultural beliefs of female Asian-American college students about Pap tests? The questions were guided by the theoretical constructs of the Theory of Reasoned Action (TRA). Because the TRA includes measures of attitude, beliefs, intentions, and behaviors, the research questions in the study followed the same format (Glanz, et al., 2002). The research questions intended to measure the participants' views on how their culture, society, and persons closest to them viewed Pap tests. In turn, the questions also assessed the effects of these variables on the participants own personal intention of receiving a Pap test. The TRA constructs were used as a theoretical framework for the interview guide prepared by the principal investigator.

Participant Selection

The participants consisted of 11 Asian-American female college students enrolled at a Texas public university. Participants were recruited from Asian cultural clubs and Asian sororities located on the campus. This participant selection method was chosen to assess the Asian-American female population on the college campus. The use of Asian cultural clubs and sororities enabled the principal investigator to reach the target audience. The principal investigator acquired participants through purposeful sampling. Presidents from the various Asian cultural clubs and sororities received an email from the principal investigator informing them of the recruitment and general information about the study. Once the recipients responded to the principal investigator via email, a more detailed outline of the study was provided. After consent of participation was established, the interview was scheduled to accommodate participant availability. All interviews were conducted in a closed environment of the participant's choosing where she would be comfortable and information would remain confidential.

Instrument

The demographic survey and interview guide were created by Jasmin Prudon, principal investigator, Kelly Wilson Ph.D., Associate Professor at Texas State University-San Marcos, Jeff Housman Ph.D., Assistant Professor at Texas State University-San Marcos, and Karen Meaney Ed.D., Professor at Texas State University-San Marcos. The demographic survey was developed to collect demographic information such as age and marital status from the participants. The interview guide was developed to understand the participant's attitudes and cultural beliefs on Pap tests. The components of the interview guide, based on constructs of the Theory of Reasoned Action, were as follows: general

knowledge on Pap test, family communication, screening behaviors, intent, cultural beliefs, and acculturation. The components listed above were chosen as variables to be evaluated. The interview guide enabled the principal investigator to assess constructs such as the attitudes, subjective norms, and intentions of the target population in regards to obtaining a Pap test.

Data Collection Protocol

Participants were recruited from Asian cultural clubs and sororities from a public university in Texas. The presidents from these organizations were sent an email to provide information about the study and request voluntary participants on May 9th, 2011. When presidents expressed an interest to help recruit for the study, an additional email was sent with detailed information about the study and a schedule was presented for the one-on-one interviews.

The interviews in this study were conducted with 11 voluntary participants. Interviews were scheduled based on the availability of the participants during the Spring of 2011. The interviews took place between May 11-20th 2011. Approval of the study (approval number 2011F7697) was granted by the Texas State Institutional Review Board on April 22nd, 2011.

After all of the dates for the interviews were scheduled, the principal investigator confirmed all appointments the day prior to the interviews with each participant. The principal investigator also sought confirmation on the day of the interview to reiterate location and scheduled time of interview. Once the principal investigator and the participant have met at the disclosed location, the interview process began.

The principal investigator distributed a copy of the consent form and demographic survey to the participants. The participants were instructed to read the consent form that described the procedures, benefits, and risks of the study. Once the consent form was signed, a copy was provided to the participant. The demographic survey instrument consisted of seven questions, which were asked in order to better understand the participants' demographic information. Participants completed the demographic survey and verbally consented to continuing on to the interview portion. The demographic survey instrument took approximately five minutes to complete.

The second portion of the data collection process was the one-on-one interviews. Each interview lasted approximately 15 minutes, and the main objective was to obtain information regarding the participants' thoughts concerning their cultural beliefs and attitudes regarding Pap tests. The entire interview session was audio recorded to ensure the participant responses were transcribed accurately. The principal investigator explained the purpose of the session and reminded the participant that termination of participation at anytime during the session was allowed before beginning. The participant was also reminded that the session would be audio recorded. After the participants understood the purpose and the terms of the session, as well as acknowledged their consent to continue, the interview process began.

The participants were asked to answer nine open-ended questions regarding their cultural beliefs and attitude regarding Pap test screening. The interview began with the open-ended question that was intended to measure the student's knowledge on Pap tests. The participants' were asked to tell the principal investigator what they knew about Pap tests. Probes such as "Why would one obtain a Pap test", as well as "What does a Pap test

look for”, were built into the interview guide in order to provide additional guidance when needed. After all the questions were asked, the principal investigator answered any questions the participants had regarding the interview. Once all questions and concerns were addressed, the principal investigator debriefed each participant on what a Pap test was and what it tested for, and then proceeded to end the interview.

Following the interview, notes and data from the audio tape was transcribed into an electronic file. No personal identifiers were present on interview notes. After all the data from each interview was stored electronically, notes and audio were destroyed. In accordance with Texas State University-San Marcos guidelines, after the completion of the analysis, the electronic data files will be stored for three years on a password protected computer and password protected file. After three years, the electronic data will be deleted. This will be done in order to maintain the privacy and confidentiality of the participants involved in the study. The data is scheduled to be destroyed on May 2014.

Data Analysis

The demographic survey information was analyzed by the principal investigator in June of 2011. The results from the survey were analyzed to assess the participants (n=11) demographic information such as age, current student classification, marital status, and the type of healthcare preferred. Participants’ knowledge on HPV and Pap tests were also analyzed to assess their prior knowledge before the interviews were conducted. The TRA construct of intention was assessed in the last question on the demographic survey through a multiple choice format in regards to obtaining a Pap test. Participants were asked, “Do you intend to schedule a Pap test screening in the next 12 months?”, wherein each participant could answer either “Yes”, “No”, or “I’m not sure”.

As for the completed interviews, responses were transcribed into a word document and uploaded to an electronic file. All the participants' transcribed responses were then uploaded into a file in NVivo8, qualitative data analysis software, for further analysis. On June 2nd, 2011, the data were transcribed and coded according to the TRA theoretical constructs attitude and subjective norm. The reoccurring themes were identified and will be discussed in further detail in the following chapters. The demographic survey and interview guide can be found in the appendix.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to evaluate the participants' individual motivational factors, to determine the likelihood that the participant would engage in obtaining a Pap test. The research questions for this study were developed in order to understand female Asian American college students' cultural beliefs and attitudes on Pap test screenings. The demographic survey was developed to collect information from the participants, and the interview guide was developed to understand the participant's attitudes and cultural beliefs about Pap tests.

Summary of Analysis

The demographic survey data was analyzed by the principal investigator. The results were analyzed in order to better understand the participants (n=11) background information such as age and current student classification. Knowledge about the human papillomavirus (HPV) and Papanicolaou (Pap) test was also assessed before the interviews were conducted.

The main purpose of the interviews was to gain insight to the participants' thoughts concerning their cultural beliefs and attitude about obtaining Pap tests.

Participants' recorded responses (n=11) to the one-on-one interviews were transcribed

into a word document and uploaded to an electronic file. Data from the interviews were uploaded into NVivo 8, qualitative data analysis software, and coded according to the constructs of the Theory of Reasoned Action (TRA). Attitudes and subjective norms were designated in separate categories known as nodes, in order to assess the constructs that emerged in this study. In addition, the reports assisted in the identification of reoccurring themes within the participants' responses.

Demographic Survey Findings

Eleven (n=11) female Asian-American college students completed the demographic survey. The majority of the participants, 63.6%, ranged from 18-21 years of age (see Table 2). Approximately 36 % of all participants were classified as seniors at the university. There were an equal percentage (18.2%) of sophomores, juniors, and graduate students, and only nine percent of the participants were classified as freshman. All 11 participants were not married.

Table 2

Demographic Characteristics of Sample (n=11)

| Characteristics | n | % |
|-------------------------------|----|------|
| Age Range | | |
| 18-21 | 7 | 63.6 |
| 22-25 | 3 | 27.3 |
| 26-29 | 1 | 9.1 |
| Student Classification | | |
| Freshman | 1 | 9 |
| Sophomore | 2 | 18.2 |
| Junior | 2 | 18.2 |
| Senior | 4 | 36.4 |
| Graduate Student | 2 | 18.2 |
| Marital Status | | |
| Married | 0 | 0 |
| Not Married | 11 | 100 |

The analysis of the responses from the demographic survey revealed a range of knowledge levels about HPV and Pap tests. 72.7% of the participants perceived themselves to have “some knowledge” about HPV, whereas 27.3% of participants claimed to have “no knowledge” on the virus (Table 3). 81.8% reported having “some knowledge” about a Pap test, and of the remaining participants, 9.1% reported having “no knowledge” and the other 9.1% reported being “knowledgeable” about Pap Tests.

Table 3

Perceived Knowledge about Human Papillomavirus (HPV) and Papanicolaou (Pap) Tests (n=11)

| Variable | n | % |
|----------------------------------|---|------|
| Knowledge about HPV | | |
| No Knowledge | 3 | 27.3 |
| Some Knowledge | 8 | 72.7 |
| Knowledgeable | 0 | 0 |
| Knowledge about Pap Tests | | |
| No Knowledge | 1 | 9.1 |
| Some Knowledge | 9 | 81.8 |
| Knowledgeable | 1 | 9.1 |

The results from the demographic survey indicated that the majority (72.7%) of the female students' source of healthcare consisted of Western-style medicine, or as this study defines it as, a doctor's office that practices evidence-based medicine (Table 4). All participants of this study had access to some source of healthcare, yet 63.6% of the students had no intention on scheduling a Pap test screening in the next 12 months. As for the remaining 36.4% of participants, 18.2% reported "yes" to intention of scheduling a Pap test, and 18.2% reported that they were "not sure" on whether they would or not.

Table 4

Sources of Healthcare and Intention of Scheduling a Pap Test in the Next Year (n=11)

| Variable | n | % |
|---|---|------|
| Source of Healthcare | | |
| None | 0 | 0 |
| Traditional Eastern Medicine | 0 | 0 |
| Western-style Medicine | 8 | 72.7 |
| Clinic | 1 | 9.1 |
| Other | 2 | 18.2 |
| Intention of Scheduling a Pap Test | | |
| Yes | 2 | 18.2 |
| No | 7 | 63.6 |
| I'm not sure | 2 | 18.2 |

One-on-one Interview Findings

The one-on-one interviews were analyzed with the qualitative data software NVivo 8. Participant responses were examined and classified under the corresponding theoretical constructs of TRA to determine the participants' intent of obtaining a Pap test. NVivo8 allowed the principal investigator to review the transcribed responses for descriptive terms expressed by the participants explaining their knowledge, attitudes and beliefs regarding Pap test. The participants' responses were then coded to align the response with a construct of the TRA.

Knowledge

Knowledge was a variable reviewed in this study as a precursor to the TRA construct attitude. Knowledge, or the lack of, may play a role influencing a person's attitude in relation to obtaining a Pap test (Bertram & Niederhauser, 2008; Holcomb, et al., 2004; Mays, et al., 2000; Pitts & Clarke, 2002; Schiffner & Buki, 2006; Vail-Smith & White, 1992; Yacobi, et al., 1999). When participants were asked to openly discuss what they knew about Pap tests, none of the participants' responses were correct. Many of the responses contained common misconceptions.

Participants were asked to tell the principal investigator what they knew about Pap test. One response is as follows: "Um, well I know people that are sexually active should have one, and I think it's an STD or something like that, or transmitted somehow that way, or I guess its also transmitted from blood and kissing and crap, and other stuff as well [referring to HPV]. Um and I mean I guess it's the Human Papillomavirus, I know that, and I know the biology and stuff like that, but that's it really" (Participant 8, personal communication, May 14th, 2011).

Another participant stated, "um well, what I know about Pap test is its for women, usually doctors want you to take it at 18 years old, and then every single year after that just to rule out any diseases or any STDs as well, or if they find anything in your ovaries or cancerous" (Participant 5, personal communication, May 12th, 2011). Most participants openly stated not knowing much about this particular topic, for example, one participant stated, "um, I've only seen commercials about it, like um, in terms of cervical cancer and stuff like that, but I don't really know much beyond that" (Participant 3, personal communication, May 12th, 2011).

Reoccurring themes with the respective corresponding TRA constructs, attitude and subjective norm, were identified (Table 5). Results of the analysis revealed four major themes: (1) participants generally have positive feelings associated with Pap test, (2) the participants are comfortable talking to their parents about Pap tests, (3) abstinence is a common cultural belief surrounding the topic of sex, and (4) participants personally do not believe that their cultural beliefs would affect their decision to obtain a Pap test.

Table 5

Reoccurring Themes & Applicable Theory of Reasoned Action (TRA) Construct (n=11)

| Theme | TRA Construct | n | % |
|--|-----------------|----|------|
| Participants generally have positive feelings associated with a Pap test. | Attitude | 10 | 90.9 |
| Participants are comfortable talking to their parents about Pap tests. | Subjective Norm | 8 | 72.7 |
| Abstinence is a common cultural belief surrounding the topic of sex. | Subjective Norm | 11 | 100 |
| Participants personally do not believe that their cultural beliefs would affect their decision to obtain a Pap test. | Subjective Norm | 10 | 90.9 |

Themes

The principal investigator asked the participant to tell what they knew about Pap tests. Most of the participants (90.9%) viewed Pap tests as beneficial to their health, therefore, supporting the first common theme that participants generally have positive feelings associated with Pap tests. The following participants' responses regarding Pap tests are correlated with the TRA construct attitude.

One participant stated, "I wouldn't be objected to it because I feel like it would just benefit me. There's nothing that it could do to harm me" (Participant 4, personal communication, May 12th, 2011). Another participant felt "...all women should get tested, so that's what I feel, it's like you know how everyone gets flu shots every year?

It's something we should do as well, not just maintenance, but it's something you need to stay healthy. You never know, in a year things might change" (Participant 5, personal communication, May 12th, 2011). In addition, one participant stated, "I'm all for it, I mean it's something that just needs to be done to just be aware of what your status is or what you may or may not have. It's also another way you can get birth control, by going for your yearly check up" (Participant 11, personal communication, May 20th, 2011).

The majority of the respondents felt the benefits of a Pap test outweighed the potential harm. Participant 9 stated "I feel that [Pap test] are totally awkward, but sort of essential". Although the participant viewed the test as awkward, the outcome of knowing their overall health held greater value.

The remaining common themes could be categorized as subjective norms, which are beliefs about whether or not most people approve or disapprove a certain behavior. The second common theme was participants' comfort level talking to their parents about Pap tests. Eight out of the 11 participants reported that a Pap test is a comfortable topic to discuss with their parents. According to TRA, the perceptions of others that one values may affect the intention to engage in that particular behavior (Glanz, et al., 2002). The following excerpts depict examples of subjective norms in relation to the theme of comfort level when speaking with their parents about Pap tests.

When one participant was asked if they felt comfortable speaking with their parents about Pap tests, she responded "Eh, it would be, it wouldn't be shut down immediately or anything, they just probably, if they don't know much about it, they'd just probably tell me like, I don't know, you should look it up, talk to your friends possibly, someone who knows more about this stuff, cause if they didn't know about this stuff,

they would just tell me and not lie to me” (Participant 3, personal communication, May 12th, 2011). Another participant stated, “Yeah, I would feel comfortable. Well I guess, I don’t know about now, but when I was in college if I had a question, I always had student services building, and so anything that had happened to me then, and I didn’t go to college near home, so I would just go there, but if there was anything wrong with me, then yeah, I would let my parents know” (Participant 5, personal communication, May 12th, 2011).

Among the 27.3% of participants that felt uncomfortable discussing this issue with their parents, age was often mentioned in the response given to the principal investigator. For example, one participant stated “No, [it would not be comfortable] just because it’s not something you are comfortable talking about, especially if you are at a younger age...So at the time, no”. One participant, who was comfortable discussing this topic with her parents stated, “Yeah, at my age now [I would be comfortable], probably not when I was 16 or something like that” (Participant 10, personal communication, May 18th, 2011).

This study found that the most common cultural belief in Asian-Americans regarding the topic of sex is that it should not occur before one is married. All participants stated this belief in one form or another during the one-on-one interview responses, which makes the belief of abstinence the third theme of this study. An indirect measure of this construct is a normative belief, wherein the participant takes into consideration how one’s significant others perceive the behavior. The relationship between this theme and subjective norms are revealed in the following responses:

- 1) “Wait until you’re married, or just don’t do it period, abstinence. Abstinence is one of the main things my parents, at least, really harped about. And also the risk, it wasn’t necessarily them, um, talking about or talking about the risk of getting diseases, it was more geared towards don’t have sex because you will get pregnant, but never was it mentioned don’t have sex because you could contract a disease or anything on that level. It was like don’t have sex so you don’t get pregnant” (Participant 11, personal communication, May 20th, 2011).

- 2) “Um you know, don’t do it. You are going to get pregnant the first time you do it sort of thing. Um its really frowned upon, especially premarital sex, sex in general I guess is frowned upon. I feel like those private matters are never to be discussed. They lecture you to , you know, not give it up, at least my mom, my dad just like blatantly ignores it, like you’re not a girl, you’re just there, go to school and be good, that kind of thing, its never been like the birds and the bees. I’ve like never had that conversation with my parents ever in my entire life, I kind of just figured it out myself or from school and what not, so with them they just kind of like, it’s like they know I know so they don’t chose to elaborate with me or make sure I’m doing it safe and all, so they just figure I’m a smart kid, and I’ll figure it out” (Participant 3, personal communication, May 12th, 2011).

- 3) “I don’t know, it just goes against what you were raised as and what you believe in, and that’s it” (Participant 1, personal communication, May 11th, 2011).

The final emerging theme was that participants do not believe that their cultural beliefs would affect their decision to obtain a Pap test. In response to being asked if they would be affected, a participant stated “I feel it can, because of the way my parents raised me, but I don’t really feel like it would affect me” (Participant 4, personal communication, May 12th, 2011). Another participant felt “it [obtaining a Pap test] might go against it in a way that everything should be natural and that having a pap smear test is just in my culture”. The same participant continued by stating “people back in my country just don’t get these tests done, I don’t know, it’s not normal for them to do so, and to do anything different from our culture just seems out of the norm and unacceptable. My parents would [find it out of the norm] too, they should be fine with it, because I’m a grown woman, so I should be able to, but if they were against it, I’d just tell them that it’s not something to look down upon, just something I would like to know more about just to maintain my health because a lot of things happen without you knowing” (Participant 5, personal communication, May 12th, 2011).

Lastly, a participant responded with “um I mean if I felt like I needed one I don’t think I would ever let my culture hold me back, but at the same time, I guess because of my culture and because it’s something taboo you can’t talk about, then I don’t really know that much about pap tests as I should. Maybe nontraditional people, maybe their parents tell their kids like you know, put the condoms on and get a pap smear, but ugh not

me, so” (Participant 8, personal communication, May 14th, 2011. In summary, when asked “can you describe how your cultural beliefs affect your decision to obtain an annual Pap test?”, approximately 91% of participants acknowledged that they would not be affected by their cultural beliefs, yet most stated that they could see how others may be affected when deciding to obtain a Pap test.

CHAPTER V

DISCUSSION

Discussion

The Theory of Reasoned Action (TRA), which states that a person's attitude and subjective norm affect behavioral intention, was utilized as the theoretical framework for this study to explain how women's attitudes and cultural beliefs can influence their behavioral intention to obtain a Pap test. In this study, a participants' attitude, whether it is positive or negative, towards a Pap test and the participants' subjective norms (i.e. the beliefs of family, friends, and peers) about Pap tests were reviewed. After categorizing participants' responses into attitudes and subjective norms on this behavior, the principal investigator was able to better understand the likelihood of the participants being willing to obtain a Pap test.

This particular population had many common misconceptions, and lacked knowledge, an essential component in the formation of an attitude, about Pap tests. A person's knowledge of a particular behavior could affect the value placed on the behavior. Because knowledge is a component of one's attitude, increased awareness of the risks and rewards of an action can affect the way one views a particular behavior. When asked to explain what they knew about a Pap test, most participant responses contained some reference to HPV and cervical cancer, but few knew exactly what a Pap

test was or what it tested for. In general, the participants were unsure of what the abnormal Pap tests results actually meant, and they were unaware of the consequences it may have on women's' health.

Other qualitative studies regarding HPV and cervical cancer screenings that have been conducted have yielded similar misconceptions in the study population. (Lee & Vang, 2010; Lee-Lin et al., 2007; McPartland et al., 2005; Sandfort & Pleasant, 2009; Yacobi et al., 1999) In a qualitative study conducted with Mexican women the investigator found the women tended to have inaccurate knowledge about both STDs and cervical cancer (Garcia et al., 2007). Another study found that knowledge of Pap test guidelines was the strongest indicator for a Korean-American woman obtaining a regular Pap test (Juon, et al., 2003). Although most participants in this study perceived themselves as having "some knowledge" on HPV and Pap tests, when asked in the interview "to tell me what you know about Pap tests", responses revealed that the majority of the participants still needed more information and education on cervical cancer screenings. HPV is often detected when a women receives an "abnormal" Pap test result, however, most women lack basic knowledge about testing, abnormal results, and follow-up procedures (Cermak, et al., 2010). HPV continues to be a growing epidemic because of the lack of knowledge and awareness of the general population. Knowledge is a variable that affects individuals' attitude toward a behavior, and the limited understanding of Pap tests found in this population may be an indication as to why only 18.2% of the females interviewed in this study intended to schedule a Pap test within a year.

Attitude, a construct of the TRA, consists of an individual's belief that engaging in a particular behavior will result in a specific outcome that one values. One measure of attitude is when one associates certain outcomes and attributes to a certain behavior. Most of the participants perceived the benefits of obtaining a Pap test to outweigh the barriers. A majority of participants were able to identify with the following as the benefits of obtaining a Pap test: early detection, knowing your health status, and avoiding transmission/harm to others. The following are the most common responses in regards to perceived barriers in this study: lack of knowledge, discomfort, and health insurance (in relation to parents' perceptions of their daughters obtaining a Pap test). These findings corroborate research done in previous studies, which have found similar barriers to cancer screenings in Asian and Pacific Islanders. In addition, age, attitudinal and cultural factors were common perceived barriers in this population (Coughlin & Uhler, 2000; Juon, et al., 2003; Lee & Vang, 2010; Lee-Lin, et al., 2007; Lim, 2010; Ma, et al., 2009; Taylor, et al., 2004; Yu, et al., 2001).

Attitudes and subjective norms were categorized into themes for the purposes of analysis within the TRA constructs. Four major themes were evident from this study's findings. The first theme of this study demonstrates the influence of attitude, indicated by participants' reporting positive feelings towards Pap tests. Approximately 91% of the participants shared similar views by reporting that knowledge about their personal health status through obtaining a Pap test was perceived as a major benefit. People are more likely to participate in healthy behaviors if they believe they are susceptible to a particular condition. If a person perceives more benefits and few barriers to cervical cancer screening, they are more likely to increase screening behaviors (Lee-Lin, et al.,

2007). Even though some participants viewed Pap tests as an uncomfortable procedure, the majority of the participants of this study maintained a positive attitude about Pap testing because the procedure was viewed as beneficial.

The remaining three themes of this study depicted participants' views on what would be classified as the subjective norm under the TRA. One theme stated that participants felt comfortable discussing Pap tests with their parents. This result contradicts previous studies found in the literature. Tang et al. (1999) found Asian women were less comfortable communicating with their mothers about screenings, less prevention-oriented, and less likely to utilize Western medicine to cure illnesses and promote health. In this study, however, most participants mentioned that they would feel comfortable talking with their mother and perceived cervical cancer screenings as beneficial to maintain their health.

One study investigated mothers' attitudes toward prevention of cervical cancer among their daughters in receiving the HPV vaccine. The mothers' Pap test history was associated with her daughters' initiation of the vaccine, furthermore, a mothers' history of an abnormal Pap test result or genital/anal warts was positively associated with the daughters' completion of the HPV vaccine regimen. These findings suggest that mothers' attitudes could affect their child's accessibility to preventative measures such as the HPV vaccine (Chao, Slezak, Coleman & Jacobsen, 2009). Based on the responses from the participants of this study, young female Asian-American college students mirror their parents' perceived perceptions when considering gynecological services. The majority of the participants perceived their parents' views on Pap tests, especially their mothers', as supportive in regards to obtaining an annual Pap test.

The common cultural belief of abstaining from sexual intercourse until marriage was the third major theme of this study. Although Asian-Americans consist of over 25 different ethnicities, all participants shared this cultural belief regardless of their specific ethnicity. Many Asian cultures place an emphasis on strict moral and social conduct (Okazaki, 2002). The results of this study reflect the findings of Okazaki. Conservatism was also a frequently mentioned cultural belief shared among the participants. The females' normative beliefs, parents' beliefs about approving or disapproving a Pap test, did show to have some influence on the participants' decisions in obtaining a Pap test.

The final theme of this study revealed participants personally do not believe that their cultural beliefs would affect the decision to obtain a Pap test. Several past studies on cervical cancer screenings among the Asian population report conflicting data in comparison to this study. Those past studies often share similar barriers to obtaining a Pap test, which include but are not limited to: access to healthcare, acculturation (years spent in US), cultural factors (modesty, being asymptomatic, etc.), and mistrust in Western doctors (Juon, et al., 2003; Lee & Vang, 2010; Lee-Lin, et al., 2007; Ma, et al., 2009; Taylor, et al., 2004). Participants in this study acknowledged similar barriers during the interviews. Most participants acknowledged to the principal investigator the significance of their cultural views and empathized with other women of their culture about the barriers to obtaining a Pap test. However 90.9% of the females interviewed reported that their cultural beliefs would not affect their decision in obtaining a Pap test.

Overall, the majority of the participants of this study had a positive attitude about Pap tests regardless of minor barriers such as discomfort. Most participants reported parents as being uneducated on the topic of Pap tests. Because of that fact, most

participants reported that as one reason not to discuss this topic with their parents. Contrary to this limited parental knowledge about Pap tests, 72.7% of participants claimed they would feel comfortable speaking with their parents about Pap tests if it was necessary. In addition, ten of the eleven participants stated their own cultural beliefs would not affect the decision to obtain a Pap test, yet only 18% of the participants of this study intend on obtaining a Pap test within a year. According to a study by Chaudhry et al. (2003), the probability of a woman obtaining a Pap test was 92% if she was married and had at least a bachelor's degree and a usual source of income. The probability of obtaining a Pap test decreased to 71% if the woman was unmarried or 80% if she held less than a bachelor's degree or did not have a usual source of income (Chaudhry, Fink, Gelberg, & Brook, 2003). The variables associated with obtaining a Pap test mirrored the population of this study. All 11 participants were unmarried and nine participants held less than a bachelor's degree. The reductions in likelihood of obtaining a Pap test associated with these two variables of marital status and education level may help explain why this population has a low intention to obtain a Pap test.

The application of the TRA model to the data from this study, however, revealed a discrepancy between participants' reported lack of barriers and positive attitudes towards Pap tests and their likelihood of having scheduled one in the next year. Although the majority of participants claimed to have positive attitudes about Pap testing, felt comfortable talking with parents about this topic, and acknowledged that cultural beliefs do not affect their decision to obtain a Pap test, the data collected from this study on the participants' behavioral intention to receive a Pap test may indicate otherwise. According to the TRA model, attitude and subjective norm affect one's behavioral intention. The

discrepancies found between this study and the TRA could be attributed to the following:

1) participants' overall attitude toward the pap test was very positive, however their lack of knowledge of benefits and risks may have contributed to low behavioral intention; 2) participants in this study may not have valued their family, friends, and peers perceptions as much as participants of previous studies found in the literature; and 3) cultural beliefs of the participants' are more "Americanized" versus the culture of their parents.

In addition to the differing outcomes between those posited by the TRA and found from the study, this study's findings have also been different from what might have been expected from previous literature. These disparities between the literature and this study could be due to the demographic differences in the characteristics of the samples chosen. Most of the women in past studies conducted among Asian women were typically older, above 35 years of age, in comparison to this study which assessed college-aged females (between 18-27 years old). Another factor that could have influenced the apparent deviation from the literature is acculturation, which would have resulted in differing value placed on respective cultural beliefs. Participants in this study, unlike most participants from previous research, were all U.S.-born, which may have led them to value the culture of America more than that of their parents.

Limitations

A limitation to conducting one-on-one interviews in this study was that responses may have been biased due to self-reporting and social desirability, the latter of which is influenced by the fact that many Asian-American females are modest in regards to the topic of sexuality, and may not be willing to disclose the private details of their sexual knowledge and beliefs. No personal identifiers were asked of participants in order to

reassure participants' confidentiality and reduce response bias. Another limitation in the study was the use of a purposeful sample, with participants of intact groups such as Asian sororities or cultural clubs. Purposeful samples inherently are nonrandom because a particular demographic is needed, resulting in the possibility of selection bias. Additional limitations to the study included the fact that participants were selected from only one university in Texas; therefore, results cannot be generalized to Asian-American college students outside this population.

Implications for the Field

Results from this study lead us to believe that Asian-American college aged females are more open-minded with the discussion of cervical cancer and HPV, yet still show conservative beliefs when answering questions relating to sex. Although many participants heard of HPV and Pap tests, the majority lacked general knowledge on both topics. Health education programs that are gender and culturally appropriate need to be implemented at the university level, if not earlier, in order to increase health literacy and awareness of cervical cancer screenings and reduce the stigma attached to HPV.

All participants found the notion of engaging in premarital sex as culturally unacceptable from their parents' points of view. Due to these types of cultural beliefs and subjective norms, some participants may find it difficult to seek gynecological care or other preventive services. Public health officials should recognize these types of barriers and work with local universities and cultural clubs to reach this target population. Interventions targeting cultural or Asian social groups on campus may be able to efficiently reach a high density of young Asian-American females. These educated females could then extend the knowledge gained from the interventions to their peers'

respective college campuses, which can serve as important prevention sites because of the large concentrations of young females who may be sexually active. Health education and services can be disseminated through electronic messages on registration sites, college newspapers, and health fairs.

Many participants stated that the majority of their knowledge on HPV and Pap tests were obtained from friends, peers, classes, and health centers. Because of this finding, introductory classes such as biology, physiology, and psychology could integrate general information on HPV and the cervical cancer that could result to reach more students. Campus health centers should also examine various avenues to making students interested and comfortable in seeking health services such as cervical cancer screenings (Durvasula et al., 2008). The knowledge of Pap tests and compliance with cervical cancer screening guidelines remain the critical tools in increasing early detection, and increases survival rates for this population. The implementation of the suggested interventions above can not only help increase the knowledge of HPV and cervical cancer among young Asian-American females, but also provide them with a stronger foundation for making decisions regarding Pap tests.

Recommendations for Further Research

Asian-Americans are the only racial group to report cancer as the leading cause of death (Lee & Vang, 2010). Asian-American women continue to report low cervical cancer screening rates in the United States. *Healthy People 2020's* goal for women is to have a 93% rate of receipt for Pap tests (Healthy People, 2011). Although Pap tests remain the best defense against cervical cancer, many women fail to undergo these screenings. It is imperative for future researchers to identify factors that predict screening

behaviors in female Asian-American college students in order to decrease the mortality and morbidity rates amongst this population (Durvasula et al., 2008). Future research with this population should also examine the difference in the cultural beliefs of American born females compared to the females who emigrated from Asia, as this difference may have been one of the factors in disparities found between previous literature and this study. In addition, researching specific ethnicities within the Asian culture could yield more specific results that could help tailor more effective health education and prevention programs.

Research efforts on HPV are still being done, therefore, the information available and widely accepted can be sparse or conflicting. With constant technological innovations and an ever changing society, it would be beneficial to examine college students' opinions and suggestions on the best routes of dissemination for health education and promotion on topics such as cervical cancer screenings, especially given cultural concerns that can influence young Asian-American women. With sufficient further research, dissemination of health information can be tailored to this population to encourage more advantageous health outcomes.

APPENDIX A

Demographic Information Survey

What is your age? _____ years

What is your current student classification?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate student

What is your marital status?

- Married
- Not married

What is your usual source of healthcare?

- None
- Traditional Eastern medicine
- Western-style medicine
- Clinic
- Other

What is your knowledge about HPV?

- No knowledge
- Some knowledge
- Knowledgeable

What is your knowledge about Pap test?

- No knowledge
- Some knowledge
- Knowledgeable

Do you intend to schedule a Pap test screening in the next year?

- Yes
- No
- I'm not sure

APPENDIX B

Interview Questions:

- Tell me what you know about Pap test.
 - Probe: Why would one obtain a Pap test?
 - Probe: What does a Pap test look for?
 - Probe: What are the different results one may receive?
 - Probe: What do the results mean?
- What are your thoughts about talking to your parents about Pap test?
 - Probe: What have your parents told you about Pap test?
 - Probe: In your opinion, do you feel your parents were well informed about Pap test?
 - Probe: Was this topic comfortable for you and your parents to discuss? (Why or why not.)
- What are the benefits to obtaining a Pap test?
- What are the barriers to obtaining a Pap test?
- What are your feelings towards Pap tests, if so, what are they?
- How would you describe your culture?
- What are some common cultural beliefs surrounding the topic of sex?
- Can you describe how your cultural beliefs affect your decision to obtain an annual Pap test?
 - Probe: Please explain.
 - Probe: Do you feel your culture influences your communication with health care providers during women's health appointments?
- Do you think there is a difference in screening behaviors for the Pap test among Asian-American females born in the US compared to females born in Asia that have recently moved to the US? If so, why do you think that?
 - Probe: Why do you think that?
 - Probe: Do you think there is a communication barrier between Asian American females and their health care providers regarding women's health services?

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