THE SUBJECTION OF WOMEN TO A PATRIARCHAL SOCIETY IN MEXICO AND ITS EFFECT ON CERVICAL CANCER SCREENING BEHAVIOR

by

Meghan Caitlin Byrne

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This thesis was presented

by

Meghan Caitlin Byrne

It was defended on

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and approved by

Thesis Advisor:
Patricia I. Documét, MD, DrPH
Assistant Professor
Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Committee Member:
Mary A. Garza, PhD, MPH
Assistant Professor
Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Committee Member:
Andrea R. Fox, MD, MPH
Faculty
Family Medicine
School of Medicine
University of Pittsburgh

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Latin American countries show some of the highest incidences of cervical cancer in the world. Many barriers that impact decisions regarding screening behavior have been identified in Mexico; however, the specific role of male partners in the decision-making process is rarely explored. This study investigated the impact of male sexual partners, as well as perceptions of the medical community, on female decisions concerning cervical cancer screenings in Pátzcuaro, Michoacán. It also examined whether the perception of subjection discourages women from seeking medical care. Data were obtained through 75 surveys and 9 interviews conducted in Pátzcuaro, Michoacán, with women between the ages of 25 and 64 years. Cross-tabulations, descriptive statistics, and chi-squares of the survey data, along with the coding of interviews, were performed to examine barriers associated with cervical cancer screening. Survey data shows that 24.2% of women said their partners make their health decisions for them, and 8% said that their partners would not support them if they wanted a pelvic exam. Almost half (48.4%) of the women said their partners would not be comfortable with them being examined by a male medical provider. Additionally, 28% of women stated that they fear a male doctor might take advantage of them during an examination. In the interviews, women discussed male machismo, or exaggerated masculinity, and how it contributes to their feelings of subjection. More educated women were less likely to share these experiences. Women expressed that male influence is indeed a barrier to cervical cancer screenings. Neither male influences nor negative perceptions

of medical providers were significantly associated with screening behavior. More research is needed to better understand the contradiction between what women perceive and actually do. Additionally, future research should explore the role of cash incentives for screening on screening behavior. This research is relevant to public health because mortality due to cervical cancer is high in Mexico, and it is important to understand barriers to screening since early detection increases the odds of survival. This study gives insight into the role of female subjection to a patriarchal society as a barrier to cervical cancer screening.

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1.0 INTRODUCTION

Latin American countries show some of the highest incidences and mortality rates of cervical cancer in the world.(1-6) Many barriers that impact decisions regarding screening behavior have been identified in Mexico; however, the specific role of male partners in the decision-making process is rarely examined.(1, 3, 4, 6-12) This study explores the impact of male sexual partners, as well as the perception of the medical community, on female decisions concerning cervical cancer screenings in Pátzcuaro, Michoacán. Lazcano-Ponce et. al (1999) found that the subjection, or forced control, of women to a culture that is influenced by *machismo* poses as a barrier to cervical cancer screening since male partners would object to such screening measures and prohibit or influence their partners' screening behavior.(4) In moving forward with reducing the effect of external influences on screening decisions, one needs to be aware of the strength of *machismo*, or exaggerated masculinity, in the Mexican culture since it is central to empowering women to overcome its constraints and allow them to take control of their own health.

Equally important is the influence of doctors, who, according to researchers, have the potential to influence screening decisions by recommending or not recommending screening, by acting in a condescending manner towards female patients or by treating patients with undue roughness when examining them.(4) These actions might make women less likely to be examined in the future.(4) Reports of male doctors taking advantage of female patients can also affect a woman's decision to be screened since it increases screening anxiety.(4) Conversely,

when male partners and medical providers offer support to women, they provide a positive influence on screening behavior. Researchers have found that partner support for cancer screening is a significant predictor of screening behavior.(8, 11, 13)

Essential to this research is the function of the health care system in Mexico, as recent health care reform initiatives over the past decade have impacted cervical cancer screenings through the creation of *Seguro Popular* (enacted in 2003) which has increased access to various health prevention and care activities, and *Oportunidades* (enacted in 1997), which provides governmental stipends to female heads-of-household after completing certain health and wellness requirements, such as receiving a cervical cancer screening. These programs have the potential to decrease social barriers to cervical cancer screening since financial considerations can often mitigate other concerns.

Understanding screening behavior decisions and barriers to care is necessary so that interventions and health communications can better target these women and increase their use of screening tools. Screening has been shown to be an effective method of detecting cervical cancer in its early stages, thus preventing excess morbidity and mortality that is associated with later diagnoses.(14) While new policies enacted by the Mexican government such as the aforementioned programs *Seguro Popular* and *Oportunidades* have attempted to overcome financial barriers associated with screening, this research highlights some of the social problems that Mexican women still encounter with obtaining a cervical cancer screening.

The purpose of this research study was to investigate: a) male sexual partner's influences regarding cervical cancer screenings and whether male influences discourage women from seeking care; b) how women view the medical community and how this might affect a woman's

decision to be screened; and c) other influences that prevent women in Pátzcuaro from seeking cervical cancer screenings.

2.0 BACKGROUND

In this section, I will provide background information on cervical cancer and its relation to the human papillomavirus (HPV) and the HPV vaccine. I will also discuss typical cervical cancer screening barriers in Mexico and the role that men play in disease transmission and screening behaviors. I will finally address how physicians might impact screening behaviors, and I will give an overview of the theoretical framework that influenced this research.

2.1 CERVICAL CANCER IN MEXICO

Latin American countries show some of the highest incidence rates of cervical cancer in the world, and while they have 8.5% of the world's population, they show 16% of the world burden of incidence and 13% of the world burden of death from cervical cancer.(2) Unlike the United States, most of the region has seen little improvement in these rates in the past 30 years.(3) Moreover, epidemiological projections suggest that incidence and mortality from cervical cancer will increase in Latin America and the Caribbean by 2020.(7) Of the 21 Latin American countries and territories (including Puerto Rico), Mexico places 5th highest in terms of mortality from cervical cancer, with mortality rates reaching as high as 21.8 per 100,000 in 1994(1), and a current stable rate of 17.1 deaths per 100,000.(3) For comparison purposes, in 2005 the age-adjusted cervical cancer mortality rates for Whites in the United States is 2.5/100,000, and for

Latinas it is 3.26/100,000.(11) Healthy People 2010 states that baseline data in 1998 show that 3.0 deaths per 100,000 occur in the United States, with a rate of 3.3 per 100,000 among Hispanics.(15)

2.2 CERVICAL CANCER EPIDEMIOLOGY

Cervical cancer affects the cervix, the lower part of the uterus that connects to the vagina. Most often, women are not aware that they have cervical cancer; however, in late stages some women might notice abnormal vaginal bleeding, increased discharge, pelvic pain, or pain during sexual intercourse.(16) It usually takes around 10 to 12 years for precancerous cells to develop into cancer.(16) Therefore, with routine screening for cervical cancer, cancer can be caught early in its most treatable stages thus reducing morbidity and mortality from this preventable disease.(14) It is estimated that between 20% and 60% of all cervical cancer deaths in Mexico could be avoided by improving cervical cancer screening programs.(1)

The Papanicolaou test (Pap test) and the cervical visualization are the most common screening techniques performed in Mexico.(6) Current screening recommendations state that women should be screened every three years given two normal Pap tests of no more than a year apart after the initiation of sexual activity.(6) The Pap test, however, is not always a feasible option in developing countries where there is neither proper infrastructure, facilities, nor resources. A lower cost alternative that is often used is the cervical visualization.(17) The visualization involves applying a swab drenched in a 5% concentration of acetic acid to the cervix and visually observing for the presence of general macroscopic lesions or white-colored lesions. If found, the patient is then referred to have a colposcopy and possible biopsy.(17) This

method also has its limitations, since lesions could be the result of noncancerous infections (viral, bacterial, or yeast) that can stimulate cells to become atypical.(16) Because of its low specificity, colposcopy clinics must be able to handle and verify the large number of false-positives that will be generated, yet these services are cheaper to run than the laboratory services required to conduct Pap tests.(17)

Cervical cancer is associated with a variety of factors that put certain women more at risk. Many of the risk factors that affect cervical cancer development are also directly related to issues of poverty and place of residence.(10) Because higher cervical cancer mortality is seen in different geographic areas (for example, mortality rates are higher in rural areas than in urban areas), it indicates that health inequalities exist which would especially impact developing countries.(10) This relates cervical cancer incidence to the marginalization of certain groups.(2, 10)

Other relevant factors that contribute to the development of cervical cancer are an earlier age of initiation of sexual intercourse, a larger number of sexual partners, low socioeconomic status, low education levels, and poor genital hygiene.(2, 12) Also, women who use oral contraceptives, have had a higher number of live births, and who smoke cigarettes have a higher chance of developing cervical cancer.(12) These factors either put the women at an increased risk for contracting the human papillomavirus (HPV) or cause a previously contracted HPV infection to manifest itself as cervical cancer.(2) Low levels of formal education are thought to affect cervical cancer incidence because they directly impede a woman's access to health promotion and disease prevention information.(10)

2.2.1 Human Papillomavirus

Since the mid-1990s, clinical evidence has established HPV as a necessary but insufficient cause of cervical cancer.(6) Based on epidemiological studies in virginal and HPV negative women, researchers determined that HPV is virtually only spread through sexual intercourse.(18) It was found that only around 10% of the individuals infected with HPV transmit it through nonpenetrative sexual contact.(18) Therefore, while condom usage decreases the risk of acquiring HPV, it does not entirely prevent it.(16) Interestingly, results from the International Agency for Research on Cancer (IARC) study based in Lyon, France found that circumcised men were three times less likely to harbor the HPV virus than uncircumcised men.(18)

Genital HPV infections are quite common and are the most common sexually transmitted infection in the United States.(19, 20) Researchers estimate that more than 50% of the population will be infected with HPV in their lifetime.(19) Moreover, between 5% and 30% of individuals infected with HPV are actually infected by multiple strands of HPV.(16) Most HPV infections are asymptomatic, but cervical and skin lesions including genital warts may occur.(16) HPV is also the primary cause of other types of cancers, such as anal, penile, vaginal and vulvar cancers, as well as genital warts, and recurrent respiratory papillomatoses. The presence of HPV has also been observed in a fraction of head and neck cancers.(21)

The pharmaceutical company Merck has developed a vaccine against four types of HPV, and it has recently been approved for use in both the United States and Mexico, among other countries. The vaccine prevents against the two types of HPV that are responsible for around 70% of the cases of cervical cancer, and widespread use is advocated to prevent excess death due to this disease.(20) However, since the vaccine is not able to prevent against the remaining 30%

of cervical cancer viruses, screening is still essential.(20) Recommendations for cervical cancer screening remain unchanged regardless of vaccination status.(20)

Moreover, while vaccination is recommended for all females up to age 26, the vaccine is most beneficial if given before the onset of sexual activity to assure that females have not already contracted HPV; therefore, to be most effective, pre-teen girls should be vaccinated, and this requires parental consent.(19) Most studies surrounding parental acceptability of the vaccine have been performed in the United States and England(19), but these results still carry implications for Mexico. In one U.S. study, 24% of the parents were opposed to the vaccination because they felt that their children would become more likely to be sexually promiscuous and would initiate sexual intercourse at a younger age.(19) Conversely, a similar study was conducted in Denmark and revealed the parents were much more accepting of the vaccine than American parents were.(19) To determine the vaccine acceptability in Mexico, however, more research is needed. Aside from the acceptability issues in Mexico, though, there are additional obstacles to obtaining a vaccine that will further impact its use. These barriers include payment and access issues, as well as general trust in the medical system which have the potential to influence vaccination behavior. However, cervical cancer screening is still a necessity with or without the vaccine(20), and therefore barriers to screening must be considered.

2.3 CERVICAL CANCER SCREENING BARRIERS IN MEXICO

There are a variety of reasons presented in the literature as to why Mexican women forgo preventive cervical cancer screening measures. First, women are often either unable to access a health clinic or find that costs associated with screening are too high and are unaffordable.(1)

Since most adults in Mexico are not covered by either private or public health insurance plans, there exists a substantial preventive health service utilization gap between those who are insured and those who are not.(14). However, there has been a National Cervical Cancer Screening Program in existence since 1974 which is regulated by the Health Ministry, and this program has helped to lessen access barriers by allowing uninsured women free access to cervical cancer screenings.(5) Moreover, current health care reform in Mexico is actively trying to mitigate access issues through programs such as *Seguro Popular* and *Oportunidades*. The former is a type of universal insurance to which families with no other source of insurance are allowed to participate based on a sliding payment scale.(14) Under this plan, cervical cancer screening expenses (among a variety of other health services) are covered.(14) *Oportunidades*, on the other hand, is a poverty reduction program with three target goals of improving nutrition, health, and educational attainment.(22) Women are eligible to enroll in the program if they meet certain program requirements for example living below the poverty level, and household education levels and composition are also taken into consideration.(23) Not all households meet eligibility requirements.(23) If program participants fulfill the terms of the program, such as attend a variety of lectures and complete certain health checks, they are eligible to receive a governmental monetary stipend which is meant to be used to pay for family needs and schooling supplies, and can account for up to 25% of the mean household income.(23) One of the required health checks for women is having a cervical visualization performed every six months. A cervical visualization is a commonly used method in Mexico to screen for cervical cancer.(6) These programs are thus able to reduce access barriers by allowing free access and providing women with an incentive to be screened for cervical cancer.

Greater organizational barriers also exist that potentially impact cervical cancer screenings, such as lack of convenient appointment times, poor communication with medical staff(11), long waiting times in the office, and poor organization in general.(4) These barriers oftentimes make waiting for preventive care impractical, not only for cervical cancer screenings but for a host of other preventive measures and well-visits. While ameliorating these greater organizational barriers is outside the realm of this research, they should not be overlooked, especially when developing strategies to improve cancer screening programs.

Lack of knowledge about cervical cancer and the importance of screening has also been cited as a barrier.(1) One study found a general lack in knowledge of the etiology of cervical cancer, especially in terms of knowing that the disease develops slowly and is most often asymptomatic(4). Moreover, the study found that most women who had received a cervical cancer screening in the past thought that it not only was used to detect cancer but also sexually transmitted diseases in general.(4) Some women stated that they felt there was no cure for cervical cancer, and so if they were to die anyway, they did not want to be screened just to cause more anxiety.(4)

Other forms of anxiety were also found to be significant barriers to the use of cervical cancer screening methods. Women cited anxiety surrounding lack of trust in the screening method, lack of physical privacy, conflict with cultural beliefs regarding modesty and sexuality, lack of female health care providers, and the dissuasion from spouses as concerns they had with screening methods.(1, 7, 9)

2.4 MEN'S ROLE IN CERVICAL CANCER AND SCREENING

2.4.1 Transmission of disease

HPV is considered to be a sexually transmitted disease.(18) While women most often suffer the ill health consequences related to HPV infections, men are also at an increased risk of developing penile and anal cancers.(18) Investigators hypothesize that a woman's risk in developing cervical cancer, however, is predicted more by her husband's sexual behavior than her own.(18) This concept directly relates to the culture of *machismo*, which refers to the dominance of men and the submissive and dependent status of women, especially when related to sexual practices.(24, 25) As in many other Latin American societies, Mexican women are expected to be monogamous and often have one sexual partner in their lifetime, whereas men oftentimes have more partners; therefore, they have intercourse with a relatively small fraction of highly promiscuous women who are at a higher risk of being infected with HPV themselves.(18) In this type of situation, HPV infections spread easily and cervical cancer incidence rates are expected to be highest.(18) Indeed, Latin American countries show some of the highest incidences of cervical cancer in the world. Results from the aforementioned International Agency for Research on Cancer (IARC) study also substantiate this claim and showed that the number of sexual partners of the male is a key determinant of cervical cancer risk in his wife.(18)

2.4.2 Male partners' influence on women's screening rates

The effect of gender roles in the prevention of cervical cancer has received little attention, yet evidence supports the notion that male sexual partners often dissuade women from getting

screened for a variety of reasons.(4) According to Lazcano-Ponce et. al (1999), it was found in a qualitative study conducted in Mexico that women may forgo screening because their partners are opposed to a male provider performing the examination.(4, 7, 13) This notion is especially common in rural areas, where most participants stated that their male partner did not want them to undergo a pelvic examination if a male performed it.(4) And while it was found that women are concerned about their physical privacy, men also reported feeling shame when others viewed their wives' bodies.(12) Lazcano-Ponce et al. (1999) concluded that male partners often do prohibit women from seeking the test, and women generally do not make decisions, even health decisions, independent of the husband.(4) Estrada et al. (2008) state:

> The gender inequities with respect to health refer to the unjust, unnecessary, and preventable inequalities that exist between men and women… In countries like Mexico it has been documented that gender inequality is closely associated with the difficulties that many women face to be in charge of their bodies, their sexuality, and their reproductive health. For example, certain studies have pointed out that reproductive decisions…are influenced by power inequities in society and the family.(26) (translated by author)

This power differential has the potential to play an important role in women's decision-making processes to be screened for cervical cancer.

As previously stated, some women erroneously think that the Pap test also detects for sexually transmitted diseases in general.(4) Because of this association, some women do not feel that the Pap test or other screening methods are appropriate for them. Moreover, these procedures become stigmatized since some feel that only promiscuous women would need to be tested.(8) Additionally, positive results can be regarded as a sign of infidelity and women might fear explaining a positive result to their spouses.(8) Since HPV is largely asymptomatic in men, it is often disassociated from his sexual behavior and blame for its contraction is therefore placed on his partner.

Conversely, males have also been shown to have a positive influence on screening behavior decisions if he shows support of his partner and her decision to be screened.(11, 13) In a study conducted in northern Peru, it was found that male partner support for cancer screening was a significant factor in women's screening participation.(11, 13) The study found that two predictors emerged in women who had previous screening experience: having a supportive husband and attending an awareness-raising session.(13) Bingham et al. (2003) also found that a husband's positive emotional, and possibly financial, support were important factors in a woman's decision to participate in screening.(8)

2.5 MEDICAL STAFF AND THEIR ROLE IN SCREENING AND RECOMMENDATIONS

Some research studies have found that trust in the nurse or physician is of utmost importance, and trust is reported as being greater if the health care provider is female.(1) It was also found that since women reported symptoms after a pelvic examination, such as vaginal bleeding and pain, undue roughness that causes severe discomfort on the part of the medical provider might be an issue.(4) Furthermore, women might be opposed to the procedure since they experience a feeling of defenselessness, which in many cases relates to the woman's physical position during the exam as well as attitudes of the health care providers who often do not ask permission to do the examination, do not explain the procedure, and do not describe each step as it is carried out.(4, 7)

Many studies also indicate that feelings of trust were greater when the medical provider performing the procedure was a female, and women strongly emphasized a preference for female

doctors and nurses.(1, 4, 8, 11) While male partners prefer their wives to be seen by female providers for reasons associated with *machismo*, women prefer female doctors because of *pena*, or embarrassment, of showing her genitals to a male doctor. Women most often feel more comfortable with a female doctor because they have the same physical anatomy, and also because some women stated they worried a male would "take advantage of the situation" of her being undressed and exposed.(4)

Finally, a few studies have documented that oftentimes medical personnel are not adequately trained in cervical cancer procedural information(5-7) which could decrease patient trust in the medical provider and increase anxiety. Unfortunately, it was found that nurses in Mexico believed that the best treatment for cervical cancer was a hysterectomy, even for mild dysplasias, and many were not aware of cryotherapy or Loop Electrosurgical Excision Procedure (LEEP) as treatment options.(7) A study by Del Refugio Gonzalez-Losa et al. (2009) found that fewer than 50% of doctors in their study knew what to do with women who were found to be HPV positive.(5) Aldrich et al. (2005) found that 16% of surveyed Mexican physicians thought that Pap tests should be repeated every six months, regardless of previous results, and 37% of obstetrician/gynecologists in a national study incorrectly stated that a hysterectomy was an option for treating cervical intraepithelial neoplasia I and II.(6)

In order to help overcome some of the barriers presented here, interventions and strategies aimed at increasing cervical cancer screening rates must ensure that appropriate and cost-effective services are available and accessible, especially to women who are uninsured. Additionally, health care providers must be properly trained and knowledgeable about detection and treatment procedures to improve the quality of care. Services must also take into account

women's concerns and needs related to the procedure to help them feel more comfortable to ensure that women who most need the services will indeed use them.(8)

2.6 PÁTZCUARO

Pátzcuaro is located in the state of Michoacán, Mexico and has a total population of 79,668 people.(27) Of the women, only 10,720, or around 25%, have public insurance compared to the national average of 50.2%.(28) Out of the Mexican states, Michoacán has the 7th lowest number of doctors with only 106.4 doctors per 100,000 people. Additionally, only 617 pesos per person per year were spent on healthcare needs in the state of Michoacán, whereas the national average was 1,171 pesos.(29) Around 12% of the women in Pátzcuaro are illiterate, and almost 4,000 people speak an indigenous language.(27) Illiteracy rates, however, are much higher in many of the surrounding communities of Pátzcuaro, with illiteracy rates reaching as high as 41% in the town of San Andres Tzirondaro.

According to a book prepared by the *Instituto Mexicano de Tecnología del Agua* (2004), the first inhabitants of the Pátzcuaro basin were the Purépechas, an indigenous group still living there today, who were a powerful ancient civilization that successfully resisted being incorporated into the Aztec empire. The Purépechas ruled almost the entire state of Michoacán as well as important parts of the states of Guanajuato, Guerrero, Jalisco, Querétaro, and Mexico. A lasting trait of the ancient civilization is the value placed on sharing community resources since in ancient times it was the role of the government to distribute the wealth to the community.(30)

With the arrival of the Spanish to the area in the 1520s came a new system of government. After the cruel leadership style of Nuño de Guzmán that relied on torture and slavery of many indigenous people, the Spanish crown arrested him, sent him back to Spain, and named Vasco de Quiroga the bishop of Pátzcuaro. He won over the favor of the Purépechas and set up a "utopian society", putting each town in charge of producing a craft. To this day, many of the towns carry on their traditional craft such as hat-weaving, furniture-making and copper work. When the state capital moved to Morelia in 1580 (then called Valladolid), the town of Pátzcuaro was left severely marginalized. Throughout the 1800s, very few schools existed and children were not educated. Starting in the 1920s, the town began its restoration process and placed an emphasis on preserving the indigenous culture.(30)

While specific data for Pátzcuaro are not readily available, in Mexico, cervical cancer remains a leading cause of death for women over 35 years of age(3, 5) and has been the most common neoplasm among women during the last few decades.(5) Mexico has had an early detection program for cervical cancer since the 1970s.(4) Despite this fact, many women still do not get screened. While many articles cite the typical barriers to cervical cancer screening, including anxiety, lack of knowledge, fear, and access issues(1, 4, 7), only a handful of studies address the issues surrounding male influences. Since this topic has not been described in great detail, it is the focus of this research project.

2.6.1 The Purépecha: Influences of *machismo*

The largest indigenous community in the region is the Purépecha, and it has greatly influenced the culture of the region. While research on *machismo* in this community is hard to find, I came across a compilation by María Guadalupe Hernández Dimas and Luis Sereno Coló (31) which

shed some light on common perceptions and gender dynamics in the Purépecha community. This book was compiled to show the positive effect that a women's empowerment workshop had on the community, and it gave insight into the thoughts of these indigenous women. However, of the fourteen stories that were presented in this book, six of them directly discussed *machismo*, and many others discussed how they learned that they, too, had rights under the constitution.

One woman, while discussing attending the workshops, said she was originally not allowed to attend because she had recently married her husband and they still "didn't understand each other well." She further said, "There were many critiques from the community and even from my family…[since] they weren't used to a woman going alone to meetings or to workshops [outside the home]" (p.9-11) (translated by author). Another woman similarly confirmed these sentiments by saying it was hard to get permission to go to the meetings and "it was not of custom that women, and more the young women, went out alone…" (p.30) (translated by author).

Another indigenous woman discussed the problems surrounding *machismo*, saying, "We face a lot of problems as women. Of the biggest problems that we suffer from is *machismo* and to be subjected to the household chores, to care for the children, without being able to breathe and without knowing the rights that we have as women" (p. 35) (translated by author).

A final story further discussed marital dynamics. "Before I was in this group, my life was very difficult to live, because my husband beat me, didn't let me participate in any group… I didn't even have food for my children because my husband was not concerned with the family…I was the one who was always at fault, I even came to believe that everything he said to me was true, I felt stupid and useless. [Lupe, the project coordinator] talked to him and made him understand that we were both worth the same, that we have the same rights" (p. 51-52)

(translated by author). These stories are indicative of the pervasiveness of *machismo* especially in indigenous culture and demonstrate the need to consider its effect on women's health.

2.7 THEORETICAL FRAMEWORK

Health behavior theories are central to the design of a study because they provide a framework for understanding an issue.(32) A main theory guiding this study is the Theory of Planned Behavior (TPB), which assumes that behavioral intention is the most important factor in determining behavior, and behavioral intention is influenced by attitudes toward performing that behavior, subjective norms, and perceived behavioral control. Behavioral intention is defined as "perceived likelihood of performing behavior", attitudes are a "personal evaluation of the behavior", subjective norms are 'beliefs about whether key people approve or disapprove of the behavior", and perceived behavior control is the "belief that one has, and can exercise control over performing the behavior".(32) The Theory of Planned Behavior was originally proposed by Icek Ajzen which built upon the Theory of Reasoned Action by both Ajzen and Martin Fishbein.(33) It was developed to better understand the relationship between attitudes, intentions, and behaviors.(33)

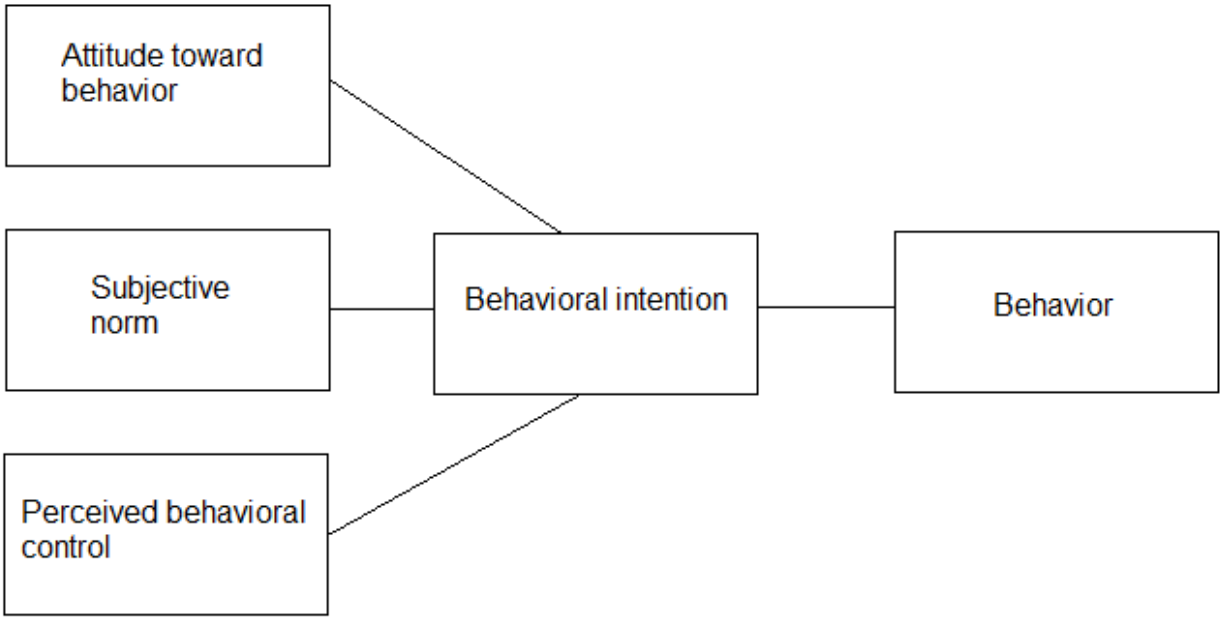

Figure 1: Diagram of the Theory of Planned Behavior

Behavioral intention, however, was found to only be a strong predictor of behavior among White women, and conversely was not found to be a strong predictor in African American, Chinese, Filipinas, or Latinas.(34) Original testing of the theory did not involve racially and ethnically diverse groups, and in studies specifically involving diverse populations, they found that subjective norms are actually a stronger predictor than in White women.(34) While some have suggested that subjective norms only contribute minimally in the explanation of intentions especially among women and persons with cancer(35), other studies have shown that subjective norms and perceived behavioral control were indeed significantly related to Pap screening intentions(36), especially when considering minority and immigrant populations.(34) According to Pasick et al. (2009), "…For researchers and practitioners serving immigrant communities, cultivating an understanding of social context, particularly relational culture, could prove more useful than interventions based on current theories."(34)

While other commonly used theories are often applied to preventive cancer screening behavior, such as The Health Belief Model, this theory focuses entirely on individual-level factors(32) and does not take social context into consideration.(34) My research is suggesting that external influences may also help shape cervical cancer screening behavior in Mexico. With relation to the TPB, my research study is particularly interested in the construct of subjective norms since they are related to the approval/disapproval given from key individuals.(32)

There are limitations to using this theory, however. First, the theory assumes that the individual who is making the decision is a rational and conscious being who is in control over whether or not the behavior is performed. Additionally, this theory as well as many others are based on data obtained from middle class White populations and college students, and the findings may not be valid for all populations.(34) Moreover, the TPB does not address factors that are external to the individual. Environmental factors also contribute to the decision-making process to be screened for cervical cancer since policy initiatives, access issues, community perceptions and stigma associated with cervical cancer all have influence on a woman's decision to get screened.

Therefore, while TPB argues that behavioral intention is a strong predictor, I also propose that environmental factors play a role. Because of the influence of environment, a successful intervention strategy would need to take into account the multiple levels of the social ecological framework(32), which states that multiple levels affect and influence individual behavior (individual, interpersonal, community, institutional, and policy levels). While I acknowledge that environmental factors are important to consider, this research study will focus on the Theory of Planned Behavior.

3.0 OBJECTIVES

Barriers that impede cervical cancer screenings need to be researched and addressed to help alleviate the disproportionate incidence and mortality rates that exist in Mexico. Many of these barriers have been investigated at length; yet while researchers state that male and medical influences might impact a woman's decision to be screened (4, 7, 12, 13), none have attempted to quantify its effect. The aim of this study was to investigate the effect of male influences on women's decisions to be screened for cervical cancer as well as to investigate women's perceptions of the medical community. Constructs from the Theory of Planned Behavior informed the survey and interview guides. The results of this research can be used to conduct appropriate interventions that address influential barriers to screening behavior. The main objectives of this research study were to investigate:

1. Male sexual partner's influences regarding cervical cancer screenings and whether it discourages women from seeking care;
2. How women view the medical community and how this might affect a woman's decision to be screened; and
3. Other influences that prevent women in Pátzcuaro from seeking cervical cancer screenings.

My hypotheses are:

1. Males exert control over their partner's decision to be screened for cervical cancer, and women who feel their partner does not approve or would not support them if they received a test will be less likely to seek cervical cancer screening; and
2. Women who distrust the medical community will be less likely to seek medical care.

4.0 METHODS

4.1 OVERVIEW

Surveys and interviews were conducted in Pátzcuaro, Michoacán, Mexico, and its surrounding communities. Pátzcuaro is located in the state of Michoacán, Mexico and has a total population of 79,668 people, with a little over half of the population comprised of women.(27) Many of the towns that surround Pátzcuaro are considered to be indigenous towns and the people often speak the native language of Purépecha. The Pátzcuaro region is divided into five different municipalities which are further divided into communities. *Mujeres Enlazadas*, the organization I worked with, targeted 21 of those communities, 10 of which are '*mestizo*' communities (of mixed indigenous and European descent) and 11 of which are indigenous communities, for the focus of their project. During the course of my research, I traveled to and spoke with women from many of these communities, as seen in Figure 4 and Table 9 (Appendix A).

Mujeres Enlazadas has been working in Pátzcuaro since 2006 and offers health care and free educational services to women and adolescent girls in the Pátzcuaro Lake Basin, with the goal of improving the health of local women. They are conducting research with the help of community members to assist them in planning for and opening a school for certified nurse midwives, thus empowering women to obtain a higher quality of care. In this way, the project is sustainable since community women will be trained to carry on the work of the organization.

Mujeres Enlazadas also offers health lectures throughout the lake basin to help educate women on important health topics, including breast and cervical cancer, menstruation, and general female health education. The organization employs local community women to help foster trust and build better relationships with the community, and the organization is respected and is fairly well-known in the community. For this reason, it has gained a great amount of community participation to both determine the needs of the community as well as to help implement program aspects. Thus, *Mujeres Enlazadas* incorporates various principles of Community Based Participatory Research (CBPR) to help increase community support and trust. Specifically, the organization: 1) recognizes the community as a unit of identity; 2) builds on the strengths and resources found in the community; 3) promotes co-learning; 4) balances research and action to benefit all partners; and 5) disseminates findings to all partners and involves them in the process.(37)

A total of four staff members were recruited from Pátzcuaro to act as community health advisors. These women were knowledgeable about the communities and had many contacts in each. One of the women spoke Purépecha and served as a translator for various indigenous communities. Another woman was trained as a nurse and helped provide women's health lectures in the communities, which facilitated community engagement, trust, and overall recognition of the *Mujeres Enlazadas* program. This research study followed the organization's principles and was developed to be used by them, so it is a part of their community-engaged research. While the community health advisors were not involved in the data collection for this particular study, they were consulted pre- and post- data collection to verify cultural appropriateness and to learn of results.

Both the survey and interview guides were created to address the gaps found in the literature review, namely to investigate male partner influences in female's decisions to be screened. The survey was used to gain quantitative information on the perceptions of local women regarding cervical cancer screenings. Interviews were conducted mostly after all surveys were completed and were used to further elaborate on details and personal experiences regarding cervical cancer screening.

4.2 TARGET POPULATION

For both the survey and interview components, women between the ages of 25 and 64 were approached in their communities, either in their homes, an outdoor marketplace, or in a local clinic, using convenience sampling. The age range was decided upon because the highest frequency of cervical cancer diagnosis in Mexico occurs in women ages 35-40 years old, and when they are diagnosed, the cancer is often in advanced stages.(4) Based on the time it takes for cancer to develop, these women would benefit by receiving cervical cancer screenings 10 to 15 years before this period to prevent death.(4)

Women were eligible to participate if they were between the ages of 25 and 64 and spoke Spanish. Many of the targeted communities were considered "indigenous towns", and while many women spoke Purépecha, most also spoke Spanish as well. Participants needed to have a good command of the Spanish language to be able to understand the presented material. Women who stated that they did not currently have a partner were also included in this study because they still provided important information about medical providers; however, all interviewed women were married.

Recruitment for both the survey and interviews was facilitated through gaining trust with community women by either approaching them after they attended a health lecture organized by *Mujeres Enlazadas* or through handing the participant a pamphlet explaining my connection to the *Mujeres Enlazadas* group. No incentives were offered. The community health advisors (CHA) were also instrumental in helping me gain entrée. Oftentimes participants seemed distrustful at first, and the CHAs introduced me in a way that then encouraged women to participate. Also, in communities where most women spoke Purépecha, one of the CHAs would at times speak with prospective participants in their native language as a way of introduction.

4.3 DATA COLLECTION

4.3.1 Survey

Question domains were created using constructs of the Theory of Planned Behavior as a guide. See Table 1 for specific questions. Survey and interview questions were designed to especially learn more about subjective norms—how male sexual partners' approval or disapproval of screening behavior influenced a woman's screening behavior decisions. The survey had 33 questions followed by a free response final question. Main question topics included participant demographics (age, education level, place of residence, identify as indigenous, health insurance status, marital status and years married/together), status of having a cervical cancer screening and frequency performed, knowledge of where to receive an exam, confidence level in the medical provider's ability, partner support for screening and in health decisions, perceived partner comfort level with being screened, treatment and quality of medical providers, and main

reasons for not being screened by a male provider. The question concerning household income was removed from the survey because all women in an initial sample responded that they did not know. The term "pelvic exam" was used in place of "visualization" or "Pap test" to try to overcome the issue of women not being aware of which test they received. Response categories for the Likert scale questions on the survey portion were as follows: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree.

See Appendix B for the full survey.

The survey tool asked questions related to the TPB and specifically addressed the following constructs: *behaviors* (have you ever had a pelvic exam, when was the last time?), *attitudes* (does cervical cancer concern you, does screening make you feel more confident?), *subjective norms* (your partner is supportive of your health decisions, is concerned about cervical cancer, and would be supportive if you wanted to be screened), and *perceived behavioral control* (I know where to go to be screened for cervical cancer). Behavioral intentions were not included.

Table 1: Constructs form the Theory of Planned Behavior and corresponding questions

Behaviors:
Have you ever had a pelvic exam?
When was the last time?
Attitudes:
Being screened for cervical cancer helps you feel more confident about your health.
You are confident in the doctor or nurse's ability to give you a pelvic exam.
A male doctor or nurse treats a female patient differently than a female one does.
You fear that a male doctor might take advantage of you when he gives you a pelvic exam.
Male doctors or nurses treat you with respect during your appointments.
Female doctors or nurses are more gentle when then perform a pelvic exam than male ones are.
Subjective Norms:
Your boyfriend/husband is supportive of your health decisions.
Your boyfriend/husband usually makes your health decisions for you.
Your boyfriend/husband is concerned about cervical cancer.
Your boyfriend/husband would be comfortable with you being given a pelvic exam by a female doctor or nurse.
Your boyfriend/husband would be comfortable with you being given a pelvic exam by a male doctor or nurse.
Your boyfriend/husband would be supportive if you wanted to receive a pelvic exam.
Your boyfriend/husband and you discuss your health.
If your boyfriend/husband didn't want you to be screened for cervical cancer, you wouldn't do it.
Behavioral Control:
You know where to go to be screened for cervical cancer.

After first writing the research tools in English and then translating to Spanish, the Spanish translation of both the survey and interview guide as well as the introductory script were verified to be accurate by two native speakers. A study proposal was then sent to and approved by the University of Pittsburgh's Institutional Review Board. In Pátzcuaro, a pilot test of the materials was performed with community health advisors of the *Mujeres Enlazadas* team to verify its cultural sensitivity and to identify areas for potential confusion. The pilot test indicated that the questions were clear and understandable.

Those who agreed to participate were reminded of what a pelvic exam was, and I conducted each survey orally to overcome literacy barriers. This process took between 20-30 minutes per individual. Most response options were in the form of a Likert Scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) as indicated by the Theory

of Planned Behavior. Questions concerning male partners (19 through 26) were only given if the woman stated that she currently has a boyfriend or husband. The rest of the survey was administered to everyone. Self-identification was used in determining whether the participant was Purépecha.

4.3.2 Interviews

The nine women who were interviewed were not a part of the survey, but as stated, they were recruited and selected to participate in the same way. Eligibility requirements were the same (they had to speak Spanish and be between the ages of 25-64) except for the additional requirement that these women also had to be willing to share their personal stories with me. All women who were approached (based on convenience sampling) agreed to participate, and all participated as required. I reminded participants in the interview what a pelvic exam was and then asked a series of open-answer questions. Self-identification was used to determine if the participant was Purépecha. The interview had a total of four questions along with possible probing and demographic questions. Questions included: Tell me how you feel about a pelvic exam; Tell me how your boyfriend/husband would feel if you decided to get a pelvic exam; How are you treated in the clinics?; and, What is your biggest concern regarding pelvic exams? Responses were open-ended. See Appendix C for the full interview guide. The interview process lasted around 20-25 minutes per individual. As I was advised that local women would not be very receptive to being tape-recorded and might even modify their answers, I decided to instead take detailed notes as they gave their answers.

4.4 DATA ANALYSIS

4.4.1 Survey analysis

The results of the survey section were coded and entered into SPSS, a statistical software package. Response frequencies, cross-tabulations, and chi squares of the results were calculated to find patterns in responses. Cross-tabulations are useful because they display the distribution of two or more variables in a contingency table and show how the status of being X affects an outcome of Y. For all analysis, confidence levels were set at 95%.

4.4.1.1 Male sexual partner's influences

Using SPSS, I took 4 questions concerning male support (your boyfriend/husband is supportive of your health decisions, your boyfriend/husband usually makes your health decisions for you, your boyfriend/husband would be supportive if you wanted to receive a pelvic exam, and your boyfriend/husband and you discuss your health) and computed a total average score for each individual. These questions were chosen because they were the most indicative of male support for the pelvic exam. The response numbers for the question "your boyfriend/husband usually makes your health decisions for you" had to be reversed so that the wording corresponded correctly to the number categories in the other questions. The total score was then dichotomized into either a 1 (responses 1-3) or a 2 (responses 3.01-5), with a 2 indicating a supportive relationship and a 1 indicating a more male-dominated relationship. A chi-square value was calculated from cross-tabulating these results with cervical cancer screening behavior to test for association. Women without partners were not eligible to answer these questions, resulting in 62 women with data.

In addition to partner support, I also looked at whether negative male influence was associated with screening rates. I cross-tabulated the responses to the question "If your boyfriend/husband didn't want you to be screened for cervical cancer, you wouldn't do it" with the status of having a cervical cancer exam within the last year. Responses 1-3 were dichotomized into response 1 and responses 4 and 5 into response 2. I computed a chi-square with one degree of freedom.

4.4.1.2 Influences from the medical community

For this objective, I used the same procedure as for determining male support (see section 4.4.1.1), but the responses for the following questions were used: A male doctor or nurse treats a female patient differently than a female one does; you fear that a male doctor or nurse might take advantage of you when he gives you a pelvic exam; a male doctor or nurse doesn't provide you with the same information about cervical cancer as a female one would; male doctors or nurses treat you with respect during your appointments; and, female doctors or nurses are more gentle when they perform a pelvic exam than male ones are. Again, these questions were chosen because they best represented the participant's attitudes toward the medical staff. Response values to all questions except "male doctors or nurses treat you with respect during your appointments" were reversed so that the higher value corresponded with higher levels of trust. Once the mean score was tabulated and dichotomized into values of 1 (responses 1-3) and 2 (responses 3.01-5), the results were cross-tabulated with cervical cancer screening behavior. A chi-square and P-value were calculated with a confidence level of 95%.

4.4.1.3 Other influences

A woman's status of being enrolled in *Oportunidades* was cross-tabulated with screening behavior within the last year to determine if women in *Oportunidades* were significantly more likely to have been screened than other women. A chi square test was performed to determine a P-value with a 95% confidence level.

Also, education level was cross-tabulated with the question "If your partner didn't want you to be screened for cervical cancer, you wouldn't do it" to determine if there was any association in the responses. Education level was dichotomized either into a 1 (completed primary school or below) or a 2 (completed middle school or above). Again, a chi square test was performed to determine a P-value with a 95% confidence level.

Additional screening barriers and influences were drawn from the qualitative aspects of the survey, and responses were compiled and sorted into corresponding categories. Responses were compared to what was presented in the literature as related to common barriers to cervical cancer screening in Mexico.

4.4.2 Interview analysis

For the interview component, within 24 hours of the interview, the notes were transcribed into a Word document to assure as much accuracy in capturing their responses as possible. The results were used to supplement the survey data, and patterns were investigated among the responses to determine themes. Response categories were compiled based on their fit with the overarching objectives of male influence, medical provider influence, and other influences, and these themes were then expanded to capture the breadth of information that was gathered from the interviews.

This study was previously approved by the IRB at the University of Pittsburgh (see Appendix D for the approval letter).

5.0 RESULTS

5.1 SURVEY PARTICIPANT PROFILE

Surveys were conducted with 75 women between May 4th and June 12th, 2009. All of the women who were approached to complete a survey agreed to participate and completed the survey, unless they did not meet the eligibility requirements (with the only reason being that they were not in the target age range). Ages of the participants ranged from 25-64 years old, with slightly more participants representing the 25-34 and 35-44 age groups. Most participants did not complete grade school (44%), and only 8% of respondents had a high school education or greater. A total of 62.7% of respondents self-identified as being Purépecha. Finally, 82.6% of the participants were either married or were living with their partners, and 12% were single. See Table 2 for more information.

Of the women surveyed, 17.4% had public or private insurance and 28% had *Seguro Popular*, a universal health insurance funded by the Secretary of Health. Additionally, 54.7% of women were enrolled in *Oportunidades*, meaning they were required to be screened for cervical cancer twice a year. However, 55% of participants were not insured, and 28% of participants were neither insured nor enrolled in *Oportunidades* (which is not a type of insurance but requires and provides free cervical cancer screening).

Table 2: Sociodemographic characteristics of the survey participants

	Total	Percent
Age		
25-34	25	33%
35-44	24	32%
45-54	14	19%
55-64	12	16%
Education		
less than primary school	33	44%
primary school	22	29%
middle school	14	19%
high school	4	5%
took college classes or more	2	3%
Are you Purepecha?		
Yes	47	47%
No	28	37%
Medical insurance		
Yes- IMSS	2	3%
Yes- ISSSTE	2	3%
Yes- Seguro Popular	21	28%
Yes- Unspecified	9	12%
No	41	55%
Are you enrolled in *Oportunidades?*		
Yes	41	55%
No	34	45%
Marital status		
Married	55	73%
Widowed	4	5%
Single	9	12%
With partner- not married	7	9%

IMSS- *Instituto Mexicano del Seguro Social* (Mexican Social Security Institute)
ISSTE- *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (Institute for Social Security and Services for State Workers)

5.1.1 Cervical cancer screening behavior

Of the surveyed women, 16% have never had a pelvic exam (referring to any test for cervical cancer) and an additional 8% have not had one in over 3 years. In total, 24% of women have not been screened for cervical cancer according to recommendations. This number is actually probably higher since most women in Mexico receive a visualization instead of a Pap test, which

needs to be performed even more frequently. While in Mexico, I was told that cervical visualizations are performed more often than Pap tests, but because doctors oftentimes do not discuss the procedure with the patient as they are performing it, most women are not aware of which procedure they received. Many women claim to have received a Pap test since it is a more widely recognized term, even if in fact they received a visualization.

I additionally found that 20% of surveyed women stated that they are unsure of where to go to receive a pelvic exam. Most women are, however, concerned about cervical cancer (88%), and all women stated that receiving a pelvic exam makes them feel more confident about their health.

5.2 INTERVIEW PARTICIPANT PROFILE

A total of 9 open-ended interviews were conducted over the course of one week (June 8-12, 2009), in Pátzcuaro and its surrounding communities. All women who were approached agreed to complete an interview, and all women met the eligibility criteria. The ages of interview participants again ranged from 25-64 years, with 3 women between the ages of 25-34, 1 woman between the age of 35-44, 3 women between the ages of 45-54 and 2 women between the ages of 55-64. Most participants did not complete grade school (5 women). Of the participants, 33% (3 women) self-identified as being Purépecha, and almost half (44% or 4 women) had some form of medical insurance. Most participants (78% or 7 women) were additionally enrolled in *Oportunidades,* and all of the women were married. Demographics of the participants can be found in Table 3.

Table 3: Sociodemographic characteristics of the interview participants

	Total	Percent
Age		
25-34	3	33%
35-44	1	11%
45-54	3	33%
55-64	2	22%
Education		
less than primary school	5	56%
primary school	1	11%
middle school	1	11%
high school	2	22%
took college classes or more	0	0%
Are you Purepecha?		
Yes	3	33%
No	6	67%
Medical insurance		
Yes	4	44%
No	5	56%
Are you enrolled in *Oportunidades*?		
Yes	7	78%
No	2	22%
Marital Status		
Married	9	100%
Widowed	0	0%
Single	0	0%
With partner- not married	0	0%

5.2.1 Cervical cancer screening behavior

Only one of the nine respondents reported that she had never had a pelvic exam. When asked how she felt about the exam, she stated, "While I think it is important for one's health, I simply do not know where to go to receive an exam." The rest of the respondents have had exams between 2 months ago and 1.5 years ago. Three of the women reported that their last pelvic exam was over 1 year ago, and one stated that she has a cervical visualization once per year. These women all similarly feel that pelvic exams are important for one's health since they worry

about cancer, and seven of the nine participants specifically worry that the results will come back positive for cancer.

5.3 OBJECTIVE 1: INFLUENCE OF MALE PARTNERS ON SCREENING BEHAVIOR

5.3.1 Quantitative results

Only women who currently have a boyfriend or husband were able to answer the set of questions referring to how their male partners feel about pelvic exams (62 women out of 75). Of these women, 12.9% say that their partners are not supportive of their health decisions, and 24.2% say that their partners usually make their health decisions for them. Also, 48.4% of these women say that their partners would not be comfortable with them receiving a pelvic exam from a male doctor, while 3.2% state that their partners would not even be comfortable with them being seen by a female doctor. 8% of women say that their partners would not support them if they wanted to receive a pelvic exam, and 16.1% say that they and their partners do not discuss their health. A total of 25.8% of women stated that if their partners did not want them to go get a pelvic exam, they would not go.

Responses to questions related to the strength of male support were combined and a mean value was determined for each individual. This mean value was dichotomized into a score of either a 1, indicating little partner support, or a 2, indicating greater partner support. While most women scored a 2 (53 out of 62 total), 9 women (14.5%) had a low average score in these categories and have low partner support. To test the hypothesis that low levels of support are

associated with lower screening rates, these two variables were then cross-tabulated and a chi-square value was determined. For this test, a woman was considered to be screened if she received a cervical cancer screening within the past year. The chi-square test ($\chi^2(1)=.021$, $p=.884$) was not significant and does not support the hypothesis that women with low levels of support are less likely to get screened. See Table 4 and Figure 2 for the frequency distribution of partner support scores.

Table 4: Cross-tabulation of partner support with screening behavior in the past year

	Was screened	Was not screened	Total
Little partner support	6	3	9
Greater partner support	34	19	53
Total	40	22	62

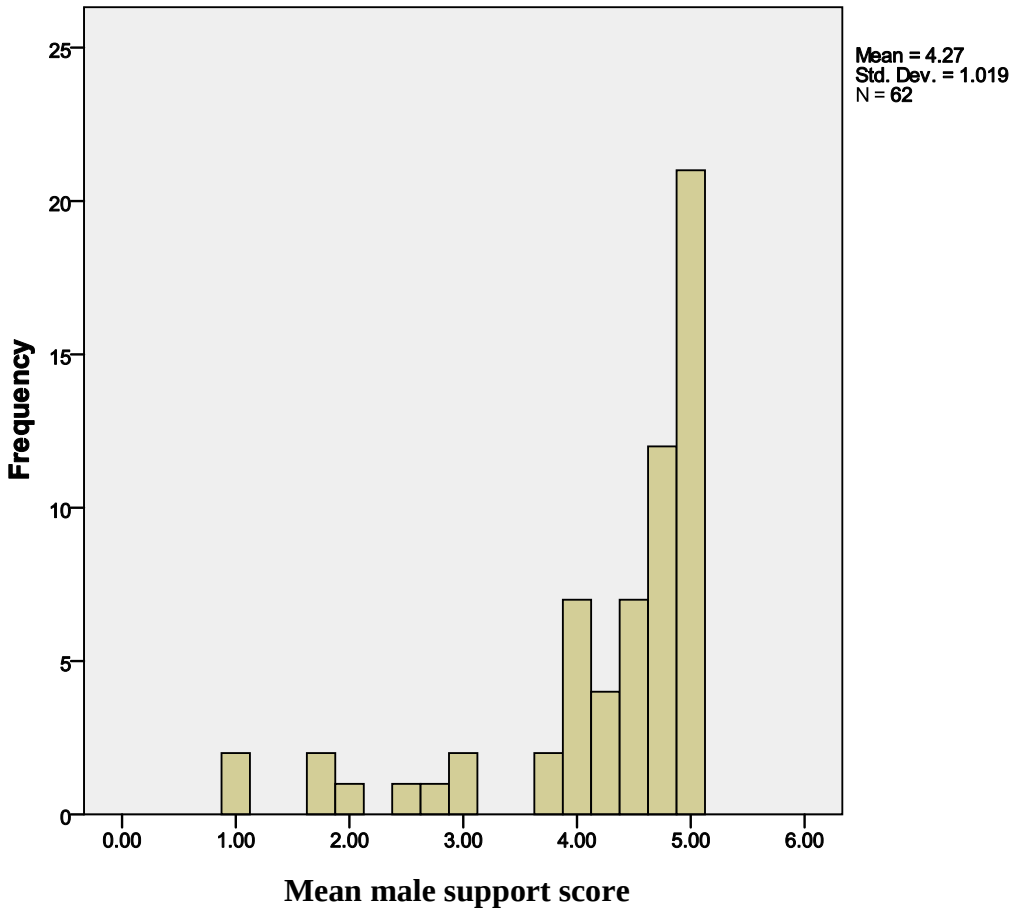

Figure 2: Frequency distribution for women with high levels of support (5) to low levels of support (1)

In addition to partner support, I also looked at whether negative male influence was associated with screening rates. Again, the results were not significant ($\chi^2(1)=.169$, $p=.684$) and showed that male influence is not associated with screening behavior.

5.3.2 Qualitative results

The open-ended question (Do you have any additional comments or concerns related to the questions in this survey?) at the end of the survey provided some interesting responses. Since it was an optional question, 54 of the 75 surveyed women responded. This question revealed that 8 women expressed concern over the sentiments of their partner. Most answers either reiterated

the fact that the woman's partner does not care about her health and does not support her in anything she does, or that she worries about being screened for cervical cancer because she worries that her husband will find out. One woman stated, "I go to my exam feeling scared because I worry that there will only be male doctors there and I will have to worry about what my husband will think." Moreover, 8 women explicitly used the word *machismo*. Comments included, "In the communities, men are very jealous and it happens a lot that they won't let their girlfriends or wives go to the clinic," and "It has happened in my family that a man wouldn't let his wife go to the doctors to be screened because he was jealous. Because of this, I think it is a big problem here." Also, when speaking to women in Pátzcuaro, I was often told that Purépecha women felt the effects of *machismo* to a much greater extent than other women of the town did. On the other hand, 2 women stated that machismo is not an issue in their community.

Responses in the interviews provided additional insight into the influence of male partners. After reading the description of the procedure for a cervical cancer screening, one woman was still unsure of exactly what it was, so she wasn't sure how she or her husband would feel about the test. She said, "I imagine that he would be more comfortable if I was seen by a female doctor because of trust issues, but I think he would probably be accepting if I went to a male doctor as well." She supposed her husband feels that the exam is important because it is good for her health, but she knew of people who say their husbands won't allow them to go because "it is seen as violating women, and I think this is thought because of a lack of education on the topic. This happens a lot."

Another woman said that while her husband supports her in everything, she thinks it would depend on the clinic to know whether or not her husband would be comfortable with her being screened. One of the older women said that her husband does not know she gets screened

for cervical cancer and she hides it from him. She said, "It makes him feel ashamed to have others look at me in that way. He wouldn't like it if I saw a female doctor, let alone a male doctor, so it would be very uncomfortable [if he found out]." She later followed up by saying, "My biggest concern with receiving the exam is that my husband will find out, so I don't go as often as I should."

One woman stated that she does not discuss her health with her husband, so she doesn't know how he would feel about it. She said, "I simply take care of my health needs without talking with him first and would still go even if he found out and told me not to go." Five of the women said that their husbands support them and feel that their wives should care for their health, but some said that while their husbands are supportive, they are still embarrassed or would not be comfortable with them being seen by a male provider. Moreover, two of these women specifically stated that if their husbands did not support them in being screened for cervical cancer, they would find a way to go anyway and hide it from them

It seems there are mixed opinions on male partners' views of cervical cancer screening. Women ranged in feeling the need to hide the exam from their husbands to openly discussing it and its importance to their health with them.

While the rest of the women seemed very much at ease while answering the questions, one woman became very upset as she proceeded to tell her story. She explained that she never has the support of her husband or her family, whether related to her health or anything else. She feels women are always cast aside and that they are the worst treated and most discriminated against. "Just because [my husband] gives me 3 lousy pesos I have to pay attention to him and do whatever he wants. I have to watch the children, wash the clothes, do everything, yet I am not valued."

5.4 OBJECTIVE 2: THE INFLUENCE OF MEDICAL PROVIDERS ON DECISIONS TO BE SCREENED

5.4.1 Quantitative results

All women were once again eligible to answer questions concerning their feelings on male doctors. 28% of women stated that they fear that a male doctor might take advantage of them when giving them a pelvic exam. 36% of women feel that male doctors or nurses treat patients differently than female doctors or nurses do, and 72% say that male doctors or nurses don't give the patient the same information about cervical cancer that a female doctor or nurse would. 68% of women say that they feel a female doctor or nurse is more gentle when they give a pelvic exam, but only 30.7% of women surveyed said that they, at some point, were given a pelvic exam by a male doctor.

The mean responses for the five questions related to opinions of the medical community were dichotomized into either 1 signifying a negative perception or 2 signifying a positive perception of the provider. These results were then cross-tabulated against the status of having a cervical cancer screening within the past year. The chi-square test showed that the results were not significant ($\chi^2(1)=.519$. $p=.471$), indicating that there is no significant difference in the likelihood of being screened among women who have a negative perception of the medical community, which does not support the second hypothesis. See Table 5 and Figure 3 for a frequency distribution of perceptions of the medical provider.

Table 5: Cross-tabulation of provider perception with screening behavior in the past year

	Was screened	Was not screened	Total
Negative perception	19	16	35
Positive perception	25	15	40
Total	44	31	75

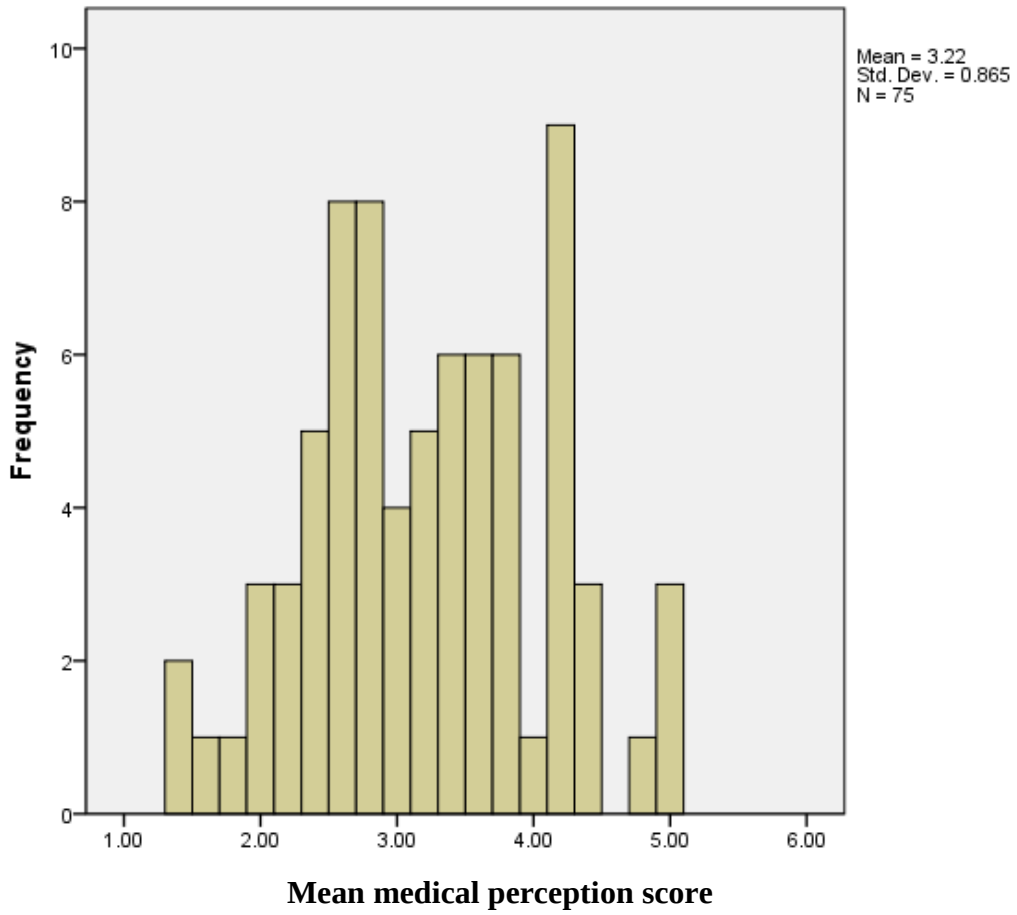

Figure 3: Frequency distribution of women with positive perceptions (5) to negative perceptions (1)

5.4.2 Qualitative results

In the open-ended responses, trust was often stated as a necessity to feeling comfortable enough to undergo an exam. Of those providing responses, 9 women said that they only trust certain doctors or clinics, and would not go to certain areas to have a pelvic exam. For example, a woman said, "I want to change doctors because I think they are lying about the results" and another said, "I don't trust doctors from here, only from Morelia." Moreover, 15 women said that they would prefer a woman doctor because they feel there is more trust than with a male doctor.

Many women also expressed their concerns with the screening provider. All but two of the interviewees said they would prefer to be seen by a female provider, either because of embarrassment of being seen by a male, trust issues, or because of fear of being taken advantage of. Of the two women who had no preference as to the gender of the provider, one woman said that it would not matter since they are all professionals, though she had never seen a male doctor before. The other woman said that she herself had no preference, but her husband would not allow her to see a male doctor, so she only seeks female providers. All but one participant said that male and female doctors treat them the same, and if they had never received a cervical cancer screening from a male, they based this statement off of their experience with general doctors. One woman, however, felt that she was taken advantage of on two separate occasions by male doctors, so she is fearful and would not keep an appointment with a male doctor.

Four women out of 54 stated that they fear a male doctor would take advantage of them. For example, "Because I am single, I think a doctor might want to take advantage of me if he knew" and "I worry a male doctor would take advantage of me because it happened to me when I was 19. He was touching me inappropriately and it was a horrible experience, it was totally

different than when I see female doctors. I try not to worry too much anymore, it was just bad luck," are a few of the responses. On the other hand, 7 women expressed that it is not a major concern of theirs, either because they are too old to worry about it anymore, or because they feel that male doctors have a responsibility to act professionally, and if they didn't, people would find out. Finally, 3 women said that on various occasions they felt that the exam itself was painful and that the doctors/nurses were not very gentle in how they performed the procedure.

Another woman explained that on one occasion, she went to have a tubal ligation because she couldn't stand to have any more children. Her male physician informed her that she needed the signature of her husband to continue with the procedure, and since she didn't, he wouldn't help her. At this point in the interview, she was crying and said "¡En mi cuerpo, mando yo!" (For my body, I decide!). She also said she is fearful of male doctors because of past experiences. Once she went to have her back checked because of back pain. The doctor she chose claimed to have studied in the United States and Canada, so she felt he was highly reputable. During her consultation, he told her she needed to take off her pants so he could better check her nerve functions and then began to touch her inappropriately, asking 'doesn't that feel nice?' He then made a reference to the size of his penis, saying "it was this long and this wide". As this was the second time something like this has happened to her, she is fearful of male doctors.

5.5 OBJECTIVE 3: OTHER INFLUENCES

5.5.1 Quantitative results

When asked what their main reason was for not wanting to be seen by a male doctor or nurse 6.7% said it was for fear that a male doctor would take advantage of them. More commonly, 53% said it was because of embarrassment, and 20% said that they do not have a preference. However, 16% responded with 'other', and some of the responses included things like "I would have to discuss it with my family first", "Because my partner wouldn't allow me", and "Because of a lack of confidence."

Table 6: Responses to the question "Main reason for not wanting to be seen by a male doctor or nurse"

	Total	Percent
Fear that a male doctor or nurse will take advantage of you	5	6.7%
Embarrassment of being seen by a male	39	52%
A male doesn't understand your health concerns	4	5.3%
You have no preference as to who sees you	15	20%
Other	12	16%

Interestingly, there was a significant association ($\chi^2(1)=6.883$, $p=.009$) between education levels and the response that if their partners did not want them to be screened for cervical cancer, they would not be screened (see Table 7).

Table 7: Cross-tabulation between education levels and whether participant would be screened if her partner didn't want her to

	Would be screened	Would not be screened	Total
Completed elementary school or less	31	16	47
Completed middle school or more	15	0	15
Total	46	16	62

Finally, being enrolled in *Oportunidades* was found to be a significant factor in predicting screening behavior—women who are enrolled are significantly more likely to have been screened for cervical cancer within the past year ($\chi^2(1)=5.429$, $p=.02$) (seeTable 8).

Table 8: Cross-tabulation between *Oportunidades* enrollment and screening behavior within the past year

	Was screened	Was not screened	Total
Enrolled in Oportunidades	29	12	41
Not enrolled in Oportunidades	15	19	34
Total	44	31	75

5.5.2 Qualitative results

The responses to the open-ended question may be indicative of what participants thought were the most important issues surrounding cervical cancer screenings. Five of 54 women stated that they feel a male doctor is better because he is more intelligent. As stated by one participant, "Women are stupid because they comb their hair and don't really pay attention to what they are doing." Seven of the women responded with statements that indicated access issues were main barrier for them to be screened. Of these, most had issues with clinics being overbooked or not having the proper supplies to perform an exam. Others felt that the exam was a waste of money because they never received the results even after attempts of contacting the clinic, and others simply did not know where to go to have an exam. I observed firsthand and through speaking with women waiting for appointments the difficulties in navigating the health care system. To schedule an appointment, a patient needs to arrive before the clinic opens to assure a spot, and often must wait around all day, possibly missing work, just to be seen. Then after the consult, results are often not reported to the individuals so they feel it was a waste of money.

A few of the women seemed confused about cervical cancer, and because of this, have not been screened. One woman said, "I have not been screened for cervical cancer because I don't feel sick." Another said, "I think that avoiding cervical cancer is a matter of looking after yourself." On the other hand, some have had personal experiences with cervical cancer, and for this reason were more concerned—"My mother died of cervical cancer, so it is something that really worries me."

An interesting finding from the interviews was that when asked what their main concern was with receiving a pelvic exam, 6 out of 9 women said it was receiving a positive result, instead of one of the more typical barriers that was cited in the survey and open-ended question.

Some women reported that this fear made them feel nervous to seek the exam. Most also stated that they preferred a female doctor because of *vergüenza*, or embarrassment, and this shame at times kept them from going to get an exam. One woman reported that the biggest barrier for her is the fact that she does not know where to receive a pelvic exam which is why she never went.

6.0 DISCUSSION

6.1 RESEARCH FINDINGS

6.1.1 Influence of male partners on screening behavior

This research suggests that women in Pátzcuaro feel that issues of subjection could affect their screening behavior. More than 1 in 4 surveyed women said that if their partner didn't want her to, they would not get screened for cervical cancer, and 8% of women said that their partner actually does not support them getting screened for cervical cancer. Moreover, relatively high numbers of women said that their husband would not be comfortable with them being examined by a male doctor (48.4%), which reiterates what was found in the literature concerning partner disapproval of being screened by a male provider.(4, 7, 13) According to Lazcano-Ponce et. al (1999), men are often not informed about the importance of cervical cancer screenings, and therefore do not necessarily find them important or worthwhile.(4) In the interviews, many women discussed that Mexican men tend to get jealous if another man "looks at his partner in that way", and that *machismo* is a main contributor to this problem. Participants additionally stated that they know many women who are not even allowed to leave the house without her husband's permission, let alone go for a very personal exam. Issues of subjection were reported

by some individuals as the biggest barrier to receiving a cervical cancer exam; however, other barriers were reported more commonly.

In the dialogues I had with various women in Pátzcuaro, I was often told that Purépecha women felt the effects of *machismo* to a much greater extent than did other women of the town. This is consistent with the available literature that shows *machismo* is still a large influence in indigenous communities.(31) Purépecha women often follow the more traditional roles where a woman stays in the house and tends to household matters while the man goes out to work. I was also told that many women are also prohibited from leaving their houses since "all the work they needed to do" is within the home. However, when cross-tabulating the status of being indigenous with screening rates, I found that indigenous women were as likely as the other participants to have been screened. It is possible that this has to do with the role of governmental programs like *Oportunidades* that now require screening every six months.

Although women expressed that men often do object to cervical cancer screenings, which is consistent with the literature (1, 4, 7, 12), this was not significantly related to screening behavior, and the first hypothesis is rejected. This signifies that there may be a contradiction between what women say regarding the importance of male influences and then what they actually do in terms of screening behavior, and this finding merits further research. Oftentimes participants stated that while their partner did not approve of the test, they would simply hide it from them and go anyway. In this way, women were able to overcome the influence of their partners and take control of their own health without the male partners' knowledge.

Another possible explanation is that the health care reform in Mexico has decreased screening barriers. I learned while I was in Mexico that the country was in the process of implementing a poverty-reduction program called *Oportunidades* which might mitigate this

influence on behavior. The program was developed in 1997 (38) and has since been slowly diffusing to target communities. It currently covers around 5 million low-income families in Mexico, which is around 20% of all families. The program targets marginalized communities as well as low-income households and gives a bimonthly stipend directly to the female head of household.(38) Eligible women who enroll in the program must receive a cervical visualization (used to detect cervical cancer) every six months. During my study, I found that 54.7% of surveyed women were indeed enrolled in the program, indicating they were required to be screened for cervical cancer twice per year. If women do not fulfill the terms of the program, they will no longer be enrolled and will not receive a bimonthly monetary stipend.(22) This stipend is very important to the women, and it has been shown that it can account up to 25% of mean household income in rural areas.(23)

The program has obvious implications for screening behavior since women are virtually coerced into receiving the exam, regardless of outside influences. Indeed, women enrolled in *Oportunidades* were significantly more likely (p-value=.02) to have been screened for cervical cancer than women who were not enrolled. The program potentially impacts gender dynamics either because males decided to require that their partners get screened in order to receive their share of the money, or it successfully empowered the women to stand up to their husbands (who wouldn't let them go) and get screened anyway to bring in more family income. Either way, it is obvious that the introduction of *Oportunidades* has had implications on the expectations assigned to women.

6.1.2 Perception of medical providers and their influence on decisions to be screened

There was no significant difference between women with positive or negative perceptions of their medical provider and screening behavior. The second hypothesis was also rejected. There was once again a marked contradiction between how women felt about the medical providers and actual screening behavior which needs to further be explored. In terms of improper treatment from the medical community, a few different trends emerged. A large number of women discussed the fact that they fear a male doctor would take advantage of them (28%), which was also described by some as a main reason for not wanting to see a male doctor. Many women stated they have heard stories of women being taken advantage of by male doctors, which indicate that many feel this is a serious issue. More research is needed to quantify the number of women who have actually been affected. In general, women discussed that they were more comfortable being seen by a female doctor because they had more *confianza* or trust with a woman, which fits in line with what is reported in the literature.(1, 4, 8, 11) While most said that male doctors normally treat them with respect, 72% say that male and female doctors would give different information concerning cervical cancer, and 68% feel that a female doctor would be more gentle when giving an exam. This is expected given what is published in the literature, since women have been reported to feel more comfortable with female providers.(1, 4, 8, 11)

6.1.3 Other influences that affect screening

While it is notable that male influences are of concern to screening behavior, not all women felt that male influences were an issue. It is important to be aware of other barriers that prevent women from getting screened, such as embarrassment and other organizational barriers.

The most commonly reported barrier regarding cervical cancer screenings was embarrassment. Feelings of embarrassment were greater if the provider giving the exam was a male. This was expected since it is well documented in the literature regarding barriers to screening.(1, 7, 9, 13) Oftentimes participants stated that they were able to overcome embarrassment because they know that screening is good for their health, but it occasionally prevents women from seeking the exam.

Other organizational barriers were also reported, such as lack of convenient appointment times and little knowledge of screening center locations. Similar experiences are documented in the current literature that shows access and organizational barriers are significant determinants of screening behavior.(1, 4, 11) My study found that 20% of participants did not know where to go to receive an exam, and were unable to get screened. Some of the barriers that women face are therefore related to many levels of a social ecological framework, and possible interventions should also consider addressing the health care workforce when addressing screening barriers.

A limitation to the survey findings is the sample size; as I was only in Pátzcuaro for 6 weeks, it was not feasible to conduct more than 75 surveys. Also, the sampling strategy might have introduced bias since the women who were approached were, for the most part, recruited in public locations. More oppressed women may not have been in the market 'unsupervised', so these opinions probably do not reflect the views of the women that *machismo* most affects. Also, it should be noted that while some of the interviews were conducted at a local health clinic, it did not necessarily create a sample bias since the clinic serves men and women for general health concerns as well as gynecological ones. Although the women were told that I was not a clinic employee, they might have associated me with the staff which might have created bias in their answers regarding their feelings toward medical personnel.

There are a few limitations to the interview portion of this research. First, all notes were written by hand while interviewing the women, since I was advised that women in the area would not want to be interviewed if they were tape-recorded. While the data was recorded into a Word document within 24 hours of conducting the interview, it is possible that some important information was missed or misinterpreted. Also, since Spanish is not my first language, there is the possibility that some of the responses were misunderstood. Finally, the comments reflected by these women are not generalizable to the greater community as they were selected by a convenience sample and only included the opinions of 9 women.

6.2 IMPLICATIONS

This research holds important implications for intervention strategies. As many of the barriers presented involve women being subjected to a patriarchal environment, it is important to consider empowerment tools to help women overcome this barrier. Successful women's empowerment interventions often share a number of characteristics; mainly, they begin with extensive preliminary work, are based on theory, include nonjudgmental discussion, and work with a specific ethnicity or gender so that interventions can be more culturally sensitive.(25) It is critical to have a good understanding of the target culture before beginning an intervention because many cultural aspects influence behavior. Providing women with this type of intervention offers the tools to overcome oppressive relationships, and specific programs can address issues like risk, building self-knowledge, skills, autonomy, and self-esteem. Relationship skill building can assist women in learning to assert themselves more effectively.(25) Interventions like these can help women overcome gender roles and stereotypes

and empower them to take their health into their own hands. Most importantly, educational interventions should also consider including males as well to help undo some of these gender roles and stress the importance of screening to male partners because, as indicated by the data, men can also be a positive influence in cervical cancer screenings.

This research also highlights the importance of training women to provide gynecological services since the data suggest that women feel less anxiety and have more feelings of trust with female providers.

These findings largely agree with what was found in the literature review and moreover suggest that social norms do indeed influence behavior intentions. The results from this study are important to consider since only a handful of researchers have addressed the specific role of male sexual partners as a determinant of cervical cancer screening behavior. Since this research found that it is indeed an important issue in Mexico, it is something that needs to be considered when designing interventions to increase cervical cancer screening rates.

In addition to male influences, it seemed that most of the other concerns involved embarrassment, not knowing where to go and having little knowledge on the subject. These concerns can be ameliorated in part through education, since this venue would be ideal to familiarize women with screening as well as to dispel common myths. Other issues were lack of trust with the medical staff and other access issues, which are all important things to consider when addressing women's screening behavior. To fully address the complex and multilevel factors that influence screening behavior, it is important to look to the social ecological model for guidance on addressing all issues from policy to individual level factors that influence behavior.(32)

7.0 CONCLUSIONS

Cervical cancer is an important issue that needs to be addressed in Mexico. This research is significant because it gives greater insight into specific barriers that prevent women from seeking screening methods. It is essential to better understand this connection because, although a few studies have cited the influence of male sexual partners as being a significant barrier, none address it directly.

The findings from this study suggest that the women of Pátzcuaro do agree that males can influence their decisions to be screened for cervical cancer. Women discussed that their husbands or partners often make their health decisions for them, and some men would not support their partners if they wanted to receive a pelvic exam. The literature has shown that male support is an important predictor of screening behavior, so women without this support may forgo screening. However, this study shows that my original hypothesis (women with less support will be less likely to be screened) was incorrect because it did not find any significant difference between those who reported feelings of subjection and male influence and screening rates, which could be a result of the recent health care policy initiatives that aim to increase screening rates or of women simply hiding their behavior from their partners. The contradiction seen in women's responses and ultimate actions deserves more research attention to further investigate why and how this occurs. Additionally, I recommend that future research

investigates how a cash incentive affects reported screening barriers and whether the incentive allows women to more easily overcome other reported barriers.

Women also expressed concerns regarding the medical staff. However, my original hypothesis (women who distrust the medical community will be less likely to seek medical care) was again incorrect because it did not find any significant difference between those who reported distrust and screening rates. They feel organizational constraints such as appointment times or lack of supplies prevent them from being screened, and some women expressed little trust in the medical staff. Overall, however, participants found that medical providers were respectful and while 28% of participants feared being taken advantage of by a male doctor, they are still able to be screened by female providers who 68% of respondents say are more gentle.

This research can be used to guide educational and women's empowerment interventions in Mexico, as well as to target Mexican women in the United States. Watkins et al.(1) says that "these beliefs can provide a framework for understanding Latinas' beliefs about cervical cancer screening [and] the results…have relevance to Mexican women living in the United States" since they will likely share a similar culture and background. Studies should be conducted in the United States to determine if this is the case, and more research is needed concerning how to enable women to overcome male influences as a barrier, as well as how male influences might affect other areas of health.

APPENDIX A: Tables and figures

Figure 4: Map of selected towns in Pátzcuaro, highlighting those that participants came from

Source: http://infoproductosonline.com/ahmemac/Mapas/Mapas%20Originales/Zona%20Lacustre.jpg (39)
Enhanced in Paint

Table 9: Communities participants live in

	Percent of respondents	Indigenous community
Arocutin	2.7	No
Calvario	20.0	No
Canacucho	1.3	unknown
Colonia Cristo	1.3	unknown
Colonia San Jose	1.3	unknown
Cuanajo	10.7	Yes
Erongaricuaro	4.0	No
Ihuatcio	1.3	Yes
Janitzio	2.7	Yes
Jaracuaro	13.3	Yes
La Estacion	1.3	unknown
La Pacanda	2.7	Yes
Las Trojes	4.0	No
Lazaro Cardenas	9.3	Yes
Mojonera	1.3	unknown
Oponguio	1.3	unknown
Patzcuaro	5.3	No
Puacuaro	1.3	Yes
Pueblo Nuevo	1.3	unknown
Rancho Los Corales	1.3	unknown
Tupataro	8.0	No
Uricho	2.7	Yes
Tzurumutaro	1.3	No
Total	100.0	

APPENDIX B: Survey tool (English version)

Cervical Cancer Screening Survey

PELVIC EXAMS and THE PAPANICOLAOU TEST (Pap test) are routine exams where a doctor or a nurse checks if you have cervical cancer. The doctor or nurse visually examines the cervix of the uterus during a vaginal exam, and he might insert a small instrument to take a cell sample. In the beginning stages, cervical cancer has no symptoms. Please keep this in mind when answering the questions in the survey.

1. What is your age?
   - 25-34
   - 35-44
   - 45-54
   - 55-64

2. What is your education level?
   - Less than primary school
   - Completed primary school
   - Completed middle school
   - Completed high school
   - Took classes or completed college

3. Which town are you from in Patzcuaro? _____

4. Would you consider yourself to be Purépecha?
   - Yes
   - No

5. Do you have health insurance like IMSS, ISSSTE, or other type?
   - Yes
   - No

6. Are you enrolled in the IMSS-Oportunidades Program?
   - Yes
   - No

7. What is your household income per month?
   - Less than 1200 pesos
   - From 1201 to 3500 pesos
   - From 3501 to 6000 pesos
   - More than 6000 pesos
   - Decline to answer

8. What is your marital status?
   - Married
   - Divorced
   - Widowed
   - Separated
   - Single

9. How many times have you been pregnant?
   - Never has been pregnant
   - 1
   - 2
   - 3
   - 4 or more times

10. Do you currently live with your boyfriend/ husband? **If yes**, for how long?
   - Yes- less than a year
   - Yes- more than a year
   - Does not live with boyfriend/ husband

11. Does your boyfriend/husband live outside of the country, such as in the United States?
   - Yes
   - No

12. Have you ever had a pelvic exam as I described before?
   - Yes
   - No

13. **If yes**, when was the last time that you had a pelvic exam?
   - Less than 1 year ago
   - Between 1 and 3 years ago
   - Between 3 and 6 years ago
   - More than 6 years ago

Now, I am going to read a sentence, and you are going to tell me if you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree.

1	2	3	4	5
Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**

14. Cervical cancer is something that concerns you. **(Tell me if you strongly..)** 1 2 3 4 5

15. Being screened for cervical cancer helps you feel more confident about your health. 1 2 3 4 5

16. You know where to go to be screened for cervical cancer. 1 2 3 4 5

17. Cervical cancer most likely will not affect you. 1 2 3 4 5

18. You are confident in the doctor or nurse's ability to give you a pelvic exam. 1 2 3 4 5

Now, please think about the feelings and concerns <u>of your boyfriend/ husband</u> as you answer the following questions, using the same responses from before.

1	2	3	4	5
Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**

19. Your boyfriend/husband is supportive of your health decisions. 1 2 3 4 5

20. Your boyfriend/husband usually makes your health decisions for you. 1 2 3 4 5

21. Your boyfriend/husband is concerned about cervical cancer. 1 2 3 4 5

22. Your boyfriend/husband would be comfortable with you being given a pelvic exam by a female doctor or nurse. 1 2 3 4 5

23. Your boyfriend/husband would be comfortable with you being given a pelvic exam by a male doctor or nurse. 1 2 3 4 5

24. Your boyfriend/husband would be supportive if you wanted to receive a pelvic exam. 1 2 3 4 5

25. Your boyfriend/husband and you discuss your health. 1 2 3 4 5

26. If your boyfriend/husband didn't want you to be screened for cervical cancer, you wouldn't do it. 1 2 3 4 5

ONLY ANSWER QUESTIONS 27-32 IF YOU HAVE EVER HAD A PELVIC EXAM.

27. Have you ever been screened for cervical cancer by a male doctor or nurse?
    Yes
    No

The following sentences concern how you would feel if a male doctor or nurse gave you a pelvic exam. <u>If you have never been seen by a male doctor or nurse, imagine how you would feel in that situation</u>. Use the same responses as before.

1	**2**	**3**	**4**	**5**
Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**

28. A male doctor or nurse treats a female patient differently than a female one does.	1 2 3 4 5
29. You fear that a male doctor or nurse might take advantage of you when he gives you a pelvic exam.	1 2 3 4 5
30. A male doctor or nurse doesn't provide you with the same information about cervical cancer as a female one would.	1 2 3 4 5
31. Male doctors or nurses treat you with respect during your appointments.	1 2 3 4 5
32. Female doctors or nurses are more gentle when they perform a pelvic exam than male ones are.	1 2 3 4 5

(For everyone)

33. What is the main reason you wouldn't want to be seen by a male doctor or nurse?
    Fear that the male doctor or nurse will take advantage of you
    Embarrassment of being seen by a male
    A male doesn't understand your health concerns
    You have no preference as to who sees you
    Other: Please explain_____

This is the end of the survey. Do you have any additional comments or concerns related to the questions in this survey?-

_____
_____
_____
_____
_____
_____
_____

APPENDIX C: Interview guide (English version)

Interview Guide

Participant age: _____

Highest level of education:_____

From which town in Patzcuaro?:_____
Purepecha? Yes No
Insurance? Yes No
In the Oportunidades Program? Yes No

Marital Status: _____

Number of children:_____
Ever had a pelvic exam? Yes No
Last Pap test was _____ years ago N/A
How long have you lived with your significant other? _____

(Read if necessary:) PELVIC EXAMS or THE PAPANICOLAOU TEST (Pap test) are routine exams where a doctor or nurse checks if you have cervical cancer. The doctor or nurse visually examines the cervix of the uterus during a vaginal exam, and he might insert a small instrument to take a cell sample. In the beginning stages, cervical cancer has no symptoms.

1. Tell me how you feel about receiving a pelvic exam?
Probes: Is it important to your health?
How would you feel if a female performed the exam?
How would you feel if a male performed the exam?
If only male doctors or nurses were available, would you still go?

2. Tell me how your boyfriend/ husband would feel if you decided to get a pelvic exam?
Probes: How would he feel if a female performed it?
How would he feel if a male performed it?
If he didn't want you to get an exam, would you still go?

3. How are you treated in the clinics you go to for pelvic exams by female doctors or nurses? By male doctors or nurses?

4. What is your biggest concern regarding pelvic exams?

APPENDIX D: IRB approval letter

University of Pittsburgh
Institutional Review Board

3500 Fifth Avenue
Pittsburgh, PA 15213
(412) 383-1480
(412) 383-1508 (fax)
http://www.irb.pitt.edu

Memorandum

To: Meghan Byrne
From: Sue Beers , Ph.D., Vice Chair
Date: 4/8/2009
IRB#: PRO09030386
Subject: Medical Oppression and Cervical Cancer Screening Rates in the Women of Patzcuaro, Michoacan

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The above-referenced project has been reviewed by the Institutional Review Board. Based on the information provided, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section
45 CFR 46.101(b)(2) Tests, surveys, interviews, observations of public behavior
.

Please note the following information:

- If any modifications are made to this project, use the " **Send Comments to IRB Staff**" process from the project workspace to request a review to ensure it continues to meet the exempt category.
- Upon completion of your project, be sure to finalize the project by submitting a "**Study Completed**" report from the project workspace.

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.

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