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Characterizing gender norms and barriers to sexual health in Guatemala

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Characterizing gender norms and barriers to sexual health in Guatemala

Location: Lake Atitlan, Guatemala

Primary Investigators: Dr. Kiberly Brouwer, Dr. Samantha Hurst, Dr. Craig Sinkinson (on-site)

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Abstract

Aim: To gain a more complete understanding of the cultural, social, and spiritual influences in the lives of women living in the Lake Atitlan villages as they relate to sexual health, partner violence, and gender norms. The study will contribute to the development of a screening questionnaire and to revision of the clinical protocol for the education of patients about sexually transmitted infection acquisition and prevention in an effort to decrease the rate of primary and repeat infection. This educational protocol can be used as a method of secondary prevention of STIs in the villages surrounding Lake Atitlan. Method: Female patients who presented to clinic with any complaint, who were greater than 16 years old and in a relationship were enrolled in the study. Discussion group sessions with local women provided feedback on cultural appropriateness and feasibility during development of a sexual health behaviors and beliefs questionnaire. The questionnaire was then administered via one-on-one interviews with a Spanish-Kaqchiquel translator present. The questionnaire contained 5 gender norm and sexual health education scales that were subsequently scored for each participant and analyzed for reliability and validity. Results: Contrary to the hypothesis, the vast majority of participants (92.2%) responded to a hypothetical question indicating that they would believe information from the doctor over their spouse. Overall the participants' scored above 50% on 4 of 5 gender norm scales indicating moderately progressive genderrelated attitudes and beliefs. Finally, statistically significant, positive correlation was found between years of education and higher scores on the sexual health education, couple sexual communication, and gender equality scales. Based on the this data analysis and responses during survey content validation we recommend inclusion of the sexual health education, couple sexual communication, and gender equality scores for continued use in the sexual health behaviors and beliefs survey.

Background

Sexually transmitted infections (STIs) are a major global cause of acute illness, infertility, long-term disability, and death. There are more than 30 known sexually transmissible bacteria, viruses, and parasites with an estimated 498.9 million new cases diagnosed worldwide in 2008 (1). According to the World Health Organization, the most prevalent curable STIs are Chlamydia and gonorrhea. Pelvic inflammatory disease (PID), a complication of STIs, refers to infection of the female upper genital tract leading to one or more of the following: endometritis, salpingitis, oophoritis, pelvic peritonitis, and perihepatitis. Timely diagnosis and treatment are an important part of

reducing the risk of both short- and long-term complications of PID. However, even with timely treatment and clinical improvement in symptoms, long-term complications frequently occur. The long-term complications, which account for much of the suffering, morbidity, and cost of PID, include chronic pelvic pain, infertility, and ectopic pregnancy (2). The sexually transmitted agents Neisseria gonorrhoeae and Chlamydia trachomatis are the most frequently implicated infections in cases of PID (3).

Though the diagnosis and treatment approach to PID have become more straightforward and routine, they continue to be complicated by social and cultural issues. Guatemalan society is

profoundly conservative and patriarchal leaving the women with few rights and almost no power in the home. Additionally domestic violence is a common method of solving partner problems in the indigenous Mayan culture (4). Studies by Kishor (2012) and Callands et al. (2013) found that intimate partner violence increases the risk for STIs suggesting that intimate partner violence needs to be acknowledged as an important risk factor for STIs. Additionally studies suggest that sexual health promotion and risk reduction interventions must address the contextual influence of violence, including individual attitudes toward IPV to be fully effective (5, 6).

Another emerging health concern is that women who are victims of physical abuse may not practice appropriate measures to prevent acquisition of sexually transmitted diseases. One study found that women who were victims of domestic violence were twice as likely to never use condoms (7).

Guatemala ranks as "the Central American nation with the highest infant and child mortality rates, the lowest life expectancy, the most malnourished population, and the lowest level of public health expenditures" (8). Further, the life expectancy for indigenous men and women is much less than for the non-indigenous population (4). Santa Cruz La Laguna is a secluded village located on the shores of Lake Atitlan in Guatemala. This village, which is only accessible by boat or footpath, is home to a Mayan population who until recently had little or no access to health care (9).

In 2004, Maya Medical Aid established a healthcare network around the lake in order to provide medical care and education to this impoverished community. Out of the 350-400 patients Mayan Medical Aid (MMA) treats each week, approximately 20 women present with signs and symptoms of pelvic inflammatory

disease (PID). The recent rise in cases of PID has lead to questioning of the current clinic protocol for educating women that present with STIs or STI complications (namely PID). As a result a quality improvement study was proposed to address this immediate need.

Cultural Observations

Sexual promiscuity among males is common to the culture served by the MMA clinic in Santa Cruz La Laguna. Because of the lack of education among the target population, frequently neither the women nor the men make the association between the promiscuous sexual encounter and acquiring these diseases. Family, friends, and acquaintances frequently provide the affected women with fantasy explanations for their diseases, including the wind, too much sun exposure, a change in the weather, the woman's weakness of body and spirit, and / or a "fallen" uterus. Despite the presence of genital tract symptoms some men do not associate having had sex with developing a disease.

Current Education Protocol and Impact
Following a diagnosis of any sexually
transmitted infection or suspected pelvic
inflammatory disease, a clinic staff member
explains how to treat the infection and how
infections are spread through sexual contact.
When educated about the association between
sexual contact and STIs, most patients then
understand the cause and effect relationship.
However, education has not reduced the rate of
disease acquisition by either males or females.

Clinic staff have encountered that the men, as a matter of social structure, continue to have contact with commercial sex workers, and some women do not feel culturally able to refuse having sex with their sexual partner / husband, even if they think that he might carry a disease.

After acquiring a sexually transmitted disease more than once and suffering the discomforts associated with STIs and PID, women who have received education from health care workers understand the source of their infections is infected partners. The objective when educating these women is to protect them from being

infected, the theory being that, if they understand the source, they will avoid it. However this has not proven true and further investigation into the cultural, social, and familial impacts on sexual practices and beliefs is needed.

Hypotheses

Our first hypothesis is that due to cultural and social practices women believe the explanations of their spouses, families, or friends over that of the physician. Specifically, if men deny being the source of the STIs, though in contradiction to medical teaching, the women choose to believe their partners. Guatemalan society is profoundly conservative and patriarchal leaving the women with few rights and almost no power in the home (4). If the women push their sexual partners / husbands to admit their indiscretions and /or refuse sexual contact, the men deny responsibility and become outraged. Our second hypothesis is that education can cause increased confrontation between partners and places the woman at higher risk of partner violence. Because domestic violence is a common method of solving partner problems in Guatemala, a woman educated as to the cause and effect relationship between her PID and her sexual partner / husband may become at an increased risk for being a victim of violence.

Reason for choice of project

The aim of this project was to systematically revise and validate a screening tool to assess the empowerment levels of women in the Santa Cruz community in order to improve the sexual health and disease education methods of the Mayan Medical Aid clinic. Additionally, we sought to understand potential social and cultural factors leading to repeated acquisition of sexually transmitted infections among the women in the Lake Atitlan villages.

Methods

Using a systematic and data-guided approach a screening tool was implemented based on a series of scales published by the United States Agency for International Development's C-Change program to assess sexual empowerment trends within the population of Maya women in Santa Cruz so that patients requiring special reproductive health services might be identified and the clinic's sexual health education program can be immediately improved. A mixed methods design was selected to explore quality improvement in sufficient depth and breadth (10). Additionally, the use of a mixed methods design was chosen to capitalize on the strengths of both quantitative and qualitative approaches and help explain significant findings (11).

Validation of the screening tool was approached in two phases: initial study groups discussing the tool with women in the community and clinic health care providers followed by administration of screening tool in order to consider feasibility, acceptability, and applicability of the tool within the community.

Survey Development in a Novel Environment Discussion groups were organized at the outset of the project in Santa Cruz la Laguna. The groups provided feedback related to the overall research design, conceptual framework, and questionnaire items from a cultural perspective. Both women from the community and clinic staff were included in the study group sessions. The objective of the study groups was to develop a questionnaire capable of assessing sexual empowerment that was both culturally appropriate and feasible. To accomplish this, the C-Change Gender Scales Compendium was used to collect questionnaire items in 5 subject areas: sexual health education, gender beliefs, gender equality, sexual power, and couple sexual communication. The list of questions was then

presented to the group of 10 local women for cultural adaptation, assessment of cultural appropriateness, and opinions on feasibility. As a result of their feedback some questions were reworded while others we removed completely. See Appendix 1 and 2 for the original and finalized questionnaires respectively.

Population-Based Survey

Data for this project was collected over a six week period at the Mayan Medical Aid clinics in the Lake Atitlan region of Guatemala. The project used a questionnaire to collect background information about each participant and answers to a series of culturally adapted questions published by the United States Agency for International Development's C-Change program to assess sexual empowerment trends. The questionnaire was printed in Spanish and Kaqchiquel (the local Mayan language) and questionnaires were completed via one-on-one interviews with a nurse/translator present. Following finalization of the questionnaire (as discussed above), 51 women were enrolled and completed the questionnaire. All women enrolled were from villages surrounding Lake Atitlan and most were of Mayan descent.

Inclusion Criteria

Women selected to participate in validation of this screening tool were 16 years or older and from the Lake Atitlan population and currently involved in a partner/ spousal relationship.

Whether they had suffered from PID was not be part of the entry criteria.

Data Procedure

The data was assessed to determine significant predictors of low scores on any of the five gender scales. The data was first used to calculate a score in each of the five areas for each participant. Then Pearson's correlation was used to identify relationships between the participants' background characteristics and her score on each scale individually.

Ethical Statement

In each phase of the research, participants were informed of the study objectives and of their

right to withdraw. To help ensure cultural appropriateness, interviewers informed respondents about the study verbally, in their own language and using a "conversational approach." Consent was obtained verbally. The study protocol was additionally approved by the University of California, San Diego School of Medicine ISP board as well as the on-site PI and Director of MMA, Craig Sinkinson, MD. I, as the author attest to the accuracy of the data and fidelity of the study to the protocol.

Results

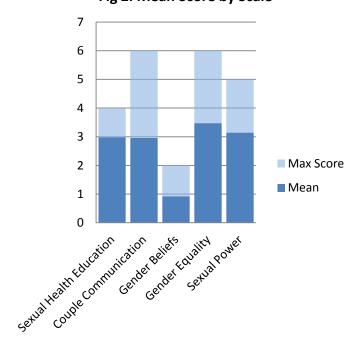
The demographic data collected included common variables as well as variables chosen for possible significance as risk factors for partner violence and STI acquisition. These results are displayed in Table 1. The score distribution for each of the 5 scales is presented in Figure 1. Additionally Figure 2 depicts the mean score for each scale and the maximum score possible for the individual scale. Finally Table 2 summarizes the statistically significant correlations identified between participant characteristics and participant scores. Due to 5 missing data values for years of education the total number of participants decreased to 46.

Table 1. Participant Characteristics: total number in each demographic group and mean values

| Age, mean (SD) 28.6 (9.3) Age range 16-58 Community (n=51) -Jabalito 1 -Sant Cruz 10 -San Marcos 5 -San Pablo 26 -Tzununa 5 -San Juan 4 Marital Status (n=51) Married 26 Not Married 25 Age at Marriage (n=27) Mean (SD) 20 (3.7) Sexually Active (n=51) 50 Age of Becoming Sexually (n=50) Active Mean (SD) 18.2 (2.7) Number of people in (n=51) (n=51) household Mean (SD) 5.7 (3.4) Number of Siblings (n=51) Mean (SD) 5.8 (2.8) Number of Children (n=50) Mean (SD) 2.3 (1.6) Age of First Pregnancy (n=48) Mean (SD) 19.3 (2.8) Employment (n=51) Has a Job 15 Earns Money 22 Works outside the community 6 <th colspan="3">each demographic group and mean values</th> | each demographic group and mean values | | |
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Fig 2. Mean Score by Scale

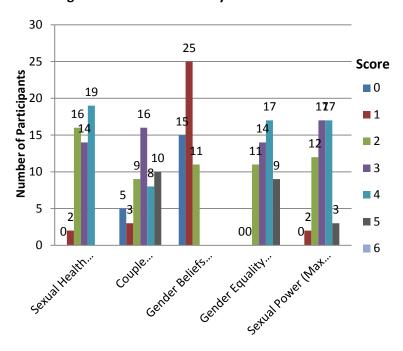
Years of Schooling



| Mean (SD) | 4.5 (4.2) | |
|--|-----------|--|
| History of Violence in the family (n=51) | 16 | |
| Attends Church (n=51) | 47 | |

| Table 2. Summary of | Years of School |
|----------------------------|-----------------|
| significant Pearson | |
| correlation data analysis | |
| Sexual Health Education | |
| Pearson correlation | 0.39 |
| Significance | .007 |
| N | 46 |
| Couple Sexual | |
| Communication | 0.49 |
| Pearson correlation | <.005 |
| Significance | 46 |
| N | |
| Gender Equality | |
| Pearson correlation | 0.33 |
| Significance | .026 |
| N | 46 |

Fig 1. Score Distributions by Gender Norm Scale



Discussion

Approximately 10% of patients presenting to the clinics surrounding Lake Atitlan are females with symptoms of sexually transmitted infections. Unfortunately many of these women present repeatedly with STIs. Though there is a standing practice of educating the women about STI acquisition and prevention via condom use, the rates of STI diagnosis were not improving. This study was initiated to validate a screening tool and to investigate multiple quality improvement issues; it offers the following results. First, contrary to our hypothesis, 92.2% of the women enrolled value information provided by the doctor even when in contradiction to what her partner or spouse tells her. This not only negates our initial hypothesis that women believe their husband over all others, but also eliminates a suspected cause of repeated STIs among women in the Lake Atitlan villages. Additionally the majority of women cited their reason for believing the doctor over their spouse as the doctor having performed an exam and running tests. Their responses demonstrate a baseline level of understanding about sexually transmitted infections and methods for diagnosis. Therefore, we now know that the current system of educating women about sexual health is not being impeded by mistrust of the doctor or a lack of understanding about the basic disease process. Overall the participants' scored above 50% on 4 of 5 gender norm scales indicating moderately progressive gender-related attitudes and beliefs.

Second, we found a statistically significant positive correlation between years of education and three of the five scales included in the survey: sexual health education, couple sexual communication, and gender equality. This correlation provides the MMA clinic with a simple patient characteristic to identify women at higher risk of low scores in these three areas of gender empowerment. Importantly low scores

on the sexual health and gender equality scales are predictors of repeated STIs, intimate partner violence, and multiple sexual partners.

Furthermore, the positive correlation between years of education and the three scales (sexual health education, couple sexual communication, and gender equality) serve as an additional source of validation for the scales within this community. Our primary methods of survey validation in this study were face validity and content validity. Both were accomplished via discussion groups at the onset of the project during which time the survey was reviewed for appropriate content and feasibility.

An issue that repeatedly arose in the discussion groups was the length of the survey. Many of the discussion group participants felt that the survey length decreased it's feasibility given it was to be administered during busy clinic visits. For the purposes of further validating the survey the length remained unchanged for the six week trial period. However, the data analysis following the trial period identified three scales that positively correlated with a characteristic predictor we expected to indicate higher risk sexual health behaviors and beliefs: years of education. As a result we would suggest the use of the sexual health education, couple sexual communication, and gender equality scores for continued use in the sexual health behaviors and beliefs survey. The gender beliefs and sexual power scales should be omitted as was suggested not only by our content validation (to abbreviate the survey length) but also by the subsequent data analysis which returned no statistically significant correlations between the score on these scales and high risk patient characteristics.

Best Practices in Novel Cultural Settings In cases of less researched settings such as developing countries, validated surveys are not readily available, thus requiring the researcher to develop new scales (13). In this case we utilized close collaboration with local women who could serve as cultural mediators. Both women from the community and clinic staff were included in study group sessions to access the perspectives of individuals on both sides of health care (providers and recipients). This group provided practical feedback on the cultural appropriateness and feasibility of the research design in the study area.

Although we began with published gender norm scales that had been validated in Guatemala generally, the questionnaire items required a moderate amount of modification to be considered culturally appropriate by local women. This highlights the need for culture specific questionnaire development even within a country. At the onset of this project the researchers were aware of the cultural differences that exist between the indigenous Mayan population in Guatemala and the general Guatemalan population. We feel that this awareness of cultural uniqueness is an essential part of best practices in a novel environment (12). It is imperative that the researching group not only recognizes the need for site specific project development but also recognizes the need for input and guidance from local persons during project development. In our case the researchers were entering a novel culture and therefore delayed detailed project development until they could be in-country to enlist the aid of local women.

As this discussion of best practices is in the setting of not only project development but also international health promotion research it is important to "emphasize the need to empower people to take greater control of the determinants of their own health and to recognize that, for most people, health is not an end in itself, but a means to achieve other values in life" (Green, 2001). As health care research explodes, providers are left to use professional judgment and community input to make good

use of evidence. Although most local programs accomplish this, evidence is frequently ignored because it feels foreign. The foreign feel stems from its "unrepresentative sources, either in the artificiality of the circumstances of the research or in the socioeconomic character of the subjects or setting" (The Ottawa Charter for Health Promotion, 1986). For these reasons, best practices for health behavior research must include input from the local population and take into account the population's values with respect to achieving health.

Suggestions for Further Development While this study validated the sexual health behaviors and beliefs survey for use in the MMA clinic and elucidated further some of the beliefs held by women in the Lake Atitlan region, there are areas that can be improved for future studies. The inclusion criteria did not require a presentation with an STI or history of an STI and therefore we were unable to validity of the survey in this specific target population. Additionally, without this information we could not run data analysis on the survey results from this target population. In a future study in this region, the validity and reliability of this survey should be further studied by collecting information on STI history from each patient and high risk sexual practices like lack of condom use. Ultimately further validation of the survey is recommended to validate its ability to accurately identify patients at higher risks of STIs due to sexual health behaviors and beliefs.

Conclusion

Though we looked specifically at health care professional mistrust and lack of education comprehension and found these to be, at most, minor contributors to the high rates of STIs, we did not identify any major contributors or risk factors. We can conclude that there is a positive, statistically significant relationship between years of education and higher sexual health

education, gender equality, and couple sexual communication scores. This information can be applied to identify patients requiring more intensive sexual health education, but more importantly aided in our survey validation. As a result of the content validation, six week trial period, and data analysis we recommend the inclusion of only three of the original five scales: sexual health education, couple sexual communication, and gender equality.

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Original Sexual Health Behavior and Beliefs Survey

Did you have health education classes in school?

How can sexual infections be spread?

Do you feel comfortable discussing family planning with your partner?

Are there certain things a wife might do that would make her husband angry with her?

Can a wife question or criticize her husband's behavior? What would happen if she does?

Do you and your husband ever talk about sex, or do you just do it?

Do husbands and wives talk with each other about sex?

Do men talk with each other about sex?

Do women talk with each other about sex?

How does a man let his wife know when he wants to have sex?

Who usually has more say about what types of sexual acts you do?

Do wives have to have sex every time the husband wants to, or can they do or say anything to avoid having sex if they do not want to? Does this change if a woman's husband is drunk?

When your spouse is drunk, are you obligated to have sex with him?

Does your partner take into account your opinion with respect to sexual desires?

Do you have sexual relations apart from your partner?

Is it possible you partner has sexual relations apart from you?

The doctor tells you that you have a vaginal infection because your spouse has had sexual relations with another woman. Your spouse says he has not had sexual relations with another woman. Who do you believe: your spouse or the doctor? Why?

What do you think of condoms?

What would happen if you asked your husband to use a condom?

If you got a vaginal infection from your husband because he had sex with another woman would you want the doctor to tell you?

Have you had any sexual partners other than your husband?

Is it possible that your husband might have sexual partners other than you?

Do men hit their wives in your community?

Why do men say they hit their wives? Why do you think men hit their wives?

TURE or FALSE

Men have many lovers because it is in their nature to do so.

If men don't have many lovers their friends laugh at them.

It is acceptable to hit your wife if she is unfaithful.

There are times when a woman deserves to be beaten.

A woman should tolerate violence or abuse to keep her family together.

When a man beats his wife it is a private matter that should not be discussed outside the couple.

If a man beats his wife and she needs to go to the hospital, the authorities should be notified.

A man needs to have sexual relations with other women even if he has a good relationship with his wife.

You don't talk about sex, you just do it.

Men get angry if women ask to use condoms.

The woman should obey her husband always.

A good wife never questions the opinions of her husband, even if she does not agree with them.

My partner does what he wants, even if I do not want him to.

Final Sexual Health Behavior and Beliefs Survey

YES or NO?

Do you know what an infection is?

Do you know how a sexual infection is transmitted?

Do you talk about family planning with your spouse/partner?

Do spouses/partners talk about sex together?

Do men talk about sex together?

Do women talk about sex together?

Do you talk with your partner about sex?

Can the woman make the decision to have sex or not?

If the man is drunk, can the woman decide to have sex or not?

Can a wife criticize or question the bad behavior of her husband? How will the husband respond to the criticism or questioning?

If you have a vaginal infection transmitted by your husband because he had sex with another woman would you like the doctor to tell you?

Do men in this community beat their wives? For what reasons do men beat their wives?

Can you communicate with your partner about when to have sex?

Do you have sexual relations with people other than your spouse?

Is it possible your partner has sexual relations with someone other than you? Yes, no, or I don't know.

The doctor tells you that you have a vaginal infection because your spouse has had sexual relations with another woman. Your spouse says he has not had sexual relations with another woman. Who do you believe: your spouse or the doctor? Why?

TRUE or FALSE

Men have many lovers because it is in their nature to do so.

If men don't have many lovers their friends laugh at them.

It is acceptable to hit your wife if she is unfaithful.

A woman should tolerate violence or abuse to keep her family together.

When a man beats his wife it is a private matter that should not be discussed outside the couple.

A man needs to have sexual relations with other women even if he has a good relationship with his wife.

Men get angry if women ask to use condoms.

The woman should obey her husband always.

My partner does what he wants, even if I do not want him to.