

Contraception in Guatemala, Panajachel and the Surrounding Areas: Barriers Affecting Women's Contraceptive Usage

Natasha Bhate

Abstract—Contraception is important in helping to reduce maternal and infant mortality rates by allowing women to control the number and spacing in-between their children. It also reduces the need for unsafe abortions. Women worldwide use contraception; however, the contraceptive prevalence rate is still relatively low in Central American countries like Guatemala. There is also an unmet need for contraception in Guatemala, which is more significant in rural, indigenous women due to barriers preventing contraceptive use. The study objective was to investigate and analyse the current barriers women face, in Guatemala, Panajachel and the surrounding areas, in using contraception, with a view of identifying ways to overcome these barriers. This included exploring the contraceptive barriers women believe exist and the influence of males in contraceptive decision making. The study took place at a charity in Panajachel, Guatemala, and had a cross-sectional, qualitative design to allow an in-depth understanding of information gathered. This particular study design was also chosen to help inform the charity with qualitative research analysis, in view of their intent to create a local reproductive health programme. A semi-structured interview design, including photo facilitation to improve cross-cultural communication, with interpreter assistance, was utilized. A pilot interview was initially conducted with small improvements required. Participants were recruited through purposive and convenience sampling. The study host at the charity acted as a gatekeeper; participants were identified through attendance of the charity's women's-initiative programme workshops. 20 participants were selected and agreed to study participation with two not attending; a total of 18 participants were interviewed in June 2017. Interviews were audio-recorded and data were stored on encrypted memory sticks. Framework analysis was used to analyse the data using NVivo11 software. The University of Leeds granted ethical approval for the research. Religion, language, the community, and fear of sickness were examples of existing contraceptive barrier themes recognized by many participants. The influence of men was also an important barrier identified, with themes of machismo and abuse preventing contraceptive use in some women. Women from more rural areas were believed to still face barriers which some participants did not encounter anymore, such as distance and affordability of contraceptives. Participants believed that informative workshops in various settings were an ideal method of overcoming existing contraceptive barriers and allowing women to be more empowered. The involvement of men in such workshops was also deemed important by participants to help reduce their negative influence in contraceptive usage. Overall, four recommendations following this study were made, including contraceptive educational courses, a gender equality campaign, couple-focused contraceptive workshops, and further qualitative research to gain a better insight into men's

opinions regarding women using contraception.

Keywords—Barrier, contraception, machismo, religion.

I. INTRODUCTION

THIS study explores the barriers women face in using contraception in Panajachel and the surrounding areas in Guatemala, Central America. Contraception, defined as methods used “to prevent pregnancy” [1], is used by many women worldwide but in some Central American countries, the contraceptive prevalence rate (CPR) is still relatively low [2]. Contraception is important in helping to reduce maternal and infant mortality rates by allowing women to determine the number and spacing of their children [3]-[6]. By preventing unintended pregnancies, it reduces the need for unsafe abortion, further reducing maternal mortality [7]. The United Nation's third international Sustainable Development Goal aims to reduce maternal and infant mortality; with increased use of contraception this can be achieved [8], [9].

Different forms of contraception exist, most requiring female usage, such as the contraceptive-pill and the contraceptive injection, which are more modern methods [3]. Traditional methods like the rhythm-method are still practised; however they are not as effective in preventing pregnancy [3], [10].

Contraception is legal to use in Guatemala, a predominantly Christian country [11]. Nearly 4.5 million of Guatemala's 16.3 million population are women of reproductive age (15-49 years) [12]-[14].

The maternal mortality ratio (MMR) is still relatively high in Guatemala at 88 per 100,000 live births [15]. This ratio has reduced greatly over the years, as shown in Fig. 1 [15], but did not reduce by three quarters by 2015, meaning that Target 5.a of the United Nation's fifth international Millennium Development Goal was unfulfilled [16], [17].

The CPR is still low in Guatemala at 54% and is lower for rural indigenous women at 40%, indicating that contraceptive barriers may still exist [18]. An unmet need for contraception is the proportion of women wanting to avoid or postpone a pregnancy but not using a method of contraception [19]. In Guatemala this is present alongside a relatively high fertility rate and women desiring smaller family sizes than they actually have [18], [20], [21]. Exploring barriers preventing this unmet need from being addressed could help increase Guatemala's CPR and in turn reduce its MMR [3], [4].

Natasha Bhate is with the University of Leeds and the London North West University Healthcare Trust, United Kingdom (e-mail: natasha.bhate1@nhs.net).

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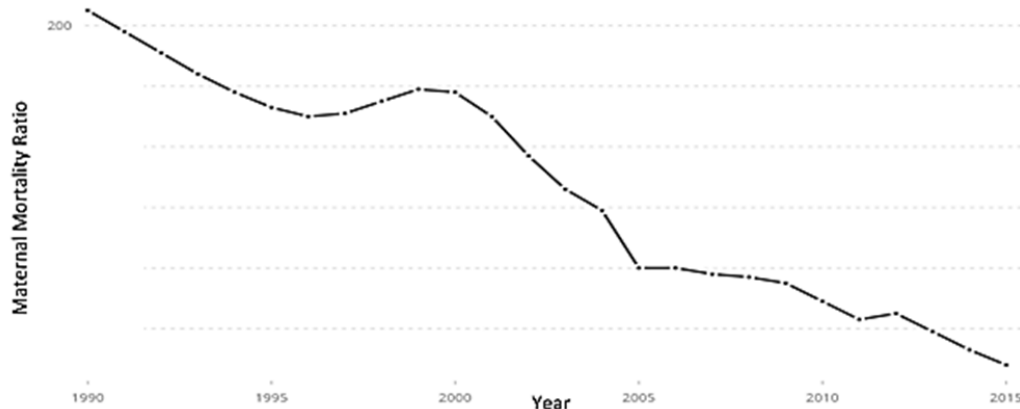


Fig. 1 MMR in Guatemala (Adapted from [15])

Little qualitative research has been conducted in recent years investigating barriers affecting women's use of contraception in Guatemala. Although a more recent study has investigated the same ethnic group as in this study [22], the women were from a different geographic area, where barriers may differ. Previous research has indicated that Guatemalan women face contraceptive barriers such as religion, education and language and rural, indigenous women experience greater barriers shown through their lower CPR [23]-[28]. However, barriers may have changed over time or no longer exist. Additionally, there is sparse qualitative research specifically investigating men as a barrier and their influence in contraceptive use amongst Guatemalan women. Men have been identified as a large barrier in contraceptive use in other Central American countries [29], [30] and machismo, strong male pride, is common in Guatemala [31]-[33]. Furthermore, there is a lack of research into what Guatemalan women personally think can be done to overcome contraceptive barriers. Acknowledging and acting on methods women personally think will work is important, as these will likely be better accepted and more successful. Therefore, this study will aim to explore these issues in further detail in the hope to establish ways to overcome current existing contraceptive barriers identified.

II. METHODOLOGY

A. Study Location

The research was conducted in Panajachel, Guatemala at a charitable organization helping to improve the lives of local communities. Study participants live in Panajachel or the surrounding areas, as circled in Fig. 2. This area is home to the Caq'chiquel, one of the indigenous Mayan groups [34], [35].

B. Sampling

Participants were recruited through purposive and convenience sampling. The study host at the charity acted as a gatekeeper; participants were identified through attendance of the charity's women's-initiative programme workshops. Participants were purposively selected to approach based on inclusion criteria, shown in Table I.



Fig. 2 Map showing where participants live (Adapted from [36])

TABLE I
 PARTICIPANT INCLUSION CRITERIA

Female
18-49 years old (reproductive age)
Attends charity's women's initiative programme workshops

Two participants interviewed did not meet the age-criteria due to a misunderstanding when recruiting for the study. Participants were given 24 hours to decide to participate. In total, 20 participants were recruited to allow saturation of sample size whilst being feasible, due to lack of lead researcher's (LR) experience [37]. Two participants however, forgot to turn up to the interview and their interview could not be rearranged.

Table II demonstrates the demographic data of the participants.

C. Study Design and Data Collection

A cross-sectional, qualitative study design was used. Qualitative methodology was appropriate, since in-depth understanding of information was required and the experience

of contraceptive barriers faced cannot be quantified [37], [38]. This particular study design was also chosen to help inform the charity with qualitative research analysis, in view of their intent to create a local reproductive health programme in the near future.

TABLE II
 PARTICIPANT DEMOGRAPHICS

Participant Characteristics	Number of Participants
Age (Years)	
18-25	1
26-33	3
34-41	6
42-49	6
50-57	2
Home Area	
Panajachel	7
San Jorge La Laguna	6
Sololá	5
Marital/Partner Status	
Married	15
Co-habiting	2
Separated	1
Ethnicity	
Caq'chiquel	16
Ladino	1
Quiché	1
Highest Level of Education	
None	3
3rd grade or below	6
4th grade to 6th grade	5
High school (6th to 12th grade)	1
Vocational/Technical Degree	3
Number of Living Children	
0	0
1-4	8
5-9	7
10+	2
Unknown	1
Contraception Use	
Never used	6
Used to use	4
Currently uses	8
Current Contraception Method Used	
Sterilization	4
Condoms	2
Rhythm-method	2
None	10

A total of 18 interviews were conducted in June 2017 by the female LR, with an interpreter, in a private room. The same experienced Spanish-English interpreter was used in all interviews, and the same charity employee acted as a Caq'chiquel-Spanish interpreter if the participant preferred speaking in Caq'chiquel; eight interviews required both interpreters. Interpreters were briefed on maintaining confidentiality and to facilitate better interpretation, were familiarized with the study design and aims [39]. Interviews lasted roughly one hour and were audio-recorded on a digital voice-recorder.

A semi-structured interview guide (Appendix I), developed from existing literature [24]-[28], with open-ended and non-leading questions, was used, to allow room for participant-directed perspectives and responses [40]-[42]. Photo facilitation was utilized due to its usefulness in improving cross-cultural communication [43]-[45]. Detailed fieldnotes were taken during the interviews. A pilot interview was

initially conducted to pre-test questions and photos, with small improvements required.

Ethical approval was obtained from the University of Leeds prior to the research starting. Informed consent was gained, with participants keeping copies of the signed, translated consent form and information sheets. Participants were reminded of their ability to withdraw from the research and that participation would not affect their charity attendance. Data were stored securely on encrypted memory sticks.

D. Data Analysis

The LR manually transcribed and analysed the interview audio data shortly after they were conducted. Framework analysis was used to analyse the data which involved summarizing and classifying the data within a thematic framework [37], [46]. Fig. 3 shows a summary of the stages.

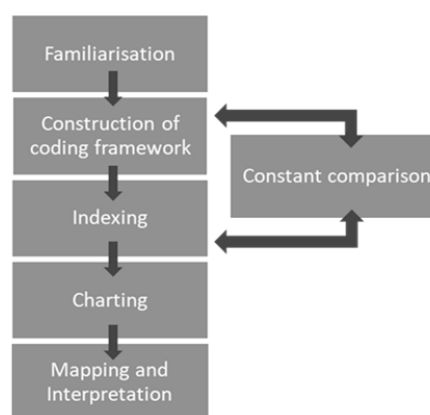


Fig. 3 Framework analysis stages [37], [46]

Firstly, the LR familiarized herself with the data by re-reading the transcripts. A coding framework was developed through thematic analysis, using a priori codes, derived from existing literature and the interview guide, with additional inductive codes emerging [37]. Indexing was followed by applying codes to the whole data set using NVivo11 software [47]. Continuous comparison of the coding framework occurred during the analysis process. Finally, charting was done using Excel to map summarized data under themes and the data were interpreted.

E. Limitations

The use of interpreters not trained in the research-field, could have led to interpreter bias as interpreters may have not given technically and conceptually accurate translations; thus the meaning of data was lost [48]. The need for two interpreters in some interviews may have led to further data loss between each translation, decreasing data accuracy and trustworthiness.

The study host recruited participants; therefore the sampling process may have been biased since they influenced who was selected, potentially influencing the findings.

The social desirability phenomenon could have occurred, whereby the participants biased their responses to make them more socially acceptable to the LR [49]. Enlisting a charity

employee as an interpreter could also have affected responses in this way.

The LR's limited research experience and Guatemalan cultural knowledge may have limited the accuracy of interview analysis since verbal and non-verbal data could have been slightly misinterpreted [37]. However, the LR took advice from the culturally proficient interpreters. The LR's preconceived ideas may also have influenced data analysis, a flaw of qualitative research, causing researcher bias [50].

III. FINDINGS

The findings of the study are presented according to themes represented in the pictures used in photo facilitation during interviews (derived from existing literature [24]-[28]) with inductive themes presented thereafter. Quotes are used to increase the trustworthiness and transparency of findings [51].

A. Contraception Usage

1) Usage and Methods

Almost an equal number of participants either currently used contraception or had never used it; a few had used contraception in the past but not presently. Of those currently using contraception, the majority were permanently surgically sterilized. Two participants used the rhythm-method and two were not using contraception personally, but their partners were using condoms.

2) Reasons for Using Contraception

Participants described the main reason for some women using contraception was a desire to control their family size and the spacing in-between their children. Women wanted a smaller family size mostly for monetary reasons:

“because of the economy, because of the whole situation in the country” (Participant 4).

“girls want to be more wealthier [...] not fall into having kids when they're very young and having a more difficult life economically speaking” (Participant 9).

A couple of participants stated their husbands' drinking problems or ill health as a reason for use, since their partners could not provide economic support to a large family. A few participants said personal health problems like miscarriages led them to use contraception to prevent reoccurrence.

3) Reasons for Not Using Contraception

Participants believed that local women who did not use contraception, or those who personally had never used it, did so to avoid the perceived stigma of contraception such as sickness and going against their religion or partners. A few participants said they would have used contraception if they had been better informed.

Some older participants, mainly over the age of 40, believed that young women's failure to use contraceptives today was due to rebelliousness; a few believed this also applied to single women:

“they want to live in the moment so they don't think of the consequences” (Participant 1).

The main reason for participants stopping using

contraception was due to their menopause starting. However, one participant stopped due to side-effects and another because she separated from her husband.

B. Barriers to Contraception Usage

1) Distance

Almost half of participants stated distance or access to contraception was not a modern-day barrier since health facilities are nearby or more accessible in Panajachel. However, two participants from more rural areas cited this as a current barrier for women in their communities. Distance was also linked to the reason for women lacking contraceptive knowledge in these areas:

“people are too far away from the medical centres so they're not getting the information they should” (Participant 14).

Some participants also acknowledged the link between the barriers of distance and affordability as some women might not be able to afford to travel to obtain contraceptives:

“Imagine if you're far away you have to pay for transportation [...]. Maybe it's not a state-owned facility so it's private and you have to pay for the method, people just can't afford it” (Participant 17).

2) Males

Males were identified as a barrier by many participants, their influence is discussed later.

3) Religion

Nearly all participants described religion as a barrier, since women have been informed through the churches and community that using contraception goes against the word of God:

“it's a sin because you are preventing life to happen” (Participant 2).

One participant, who was a strong advocate for natural contraceptive methods, expressed her strong dislike of modern contraceptives for religious reasons; this was mirrored in her hostile stance:

“that is the reality, that if you use any method [...] you're going against the law of God and against the law of life” (Participant 10).

A couple of women recognized religion as a barrier in the community but noted that the churches they attended did not force this view onto them, so they did not personally experience it.

4) Community and Culture

Many participants identified the community and culture as a barrier. Women using contraception would be judged and there would be “gossip and bullying towards” (Participant 11) them within the community, making some fearful to use it.

The local culture requires obeying the respected elders in the community; a few participants described the conservative elders' dislike and discouragement of modern contraception, as they hold strong religious and family values. Local culture also meant it was taboo to talk about sexuality, discouraging families from contraceptive discussions. However, one

participant thought the community was an encouraging factor in using contraception:

“Neighbors [...] tell her oh you should start using contraception, you have too many kids, you’re not going to be able to afford all them” (Participant 13).

5) Language

Some participants believed that language was a barrier since for a lot of women, Caq’chiquel (the local Mayan language) is the language they feel comfortable speaking in however, in many health facilities the staff only speak Spanish. This meant that women did not feel safe going to these facilities to obtain contraception; they felt discriminated against and would not fully understand information given to them there:

“you’re not sure if you’re going to be able to ask or be answered what you need” (Participant 7).

Only one participant actively spoke against language as a barrier. She said she thought or had heard that there are people in medical centres “who translate, who speak Caq’chiquel and different languages” (Participant 15). Furthermore, a different participant spoke of personal experience with Caq’chiquel speaking health-workers.

6) Knowledge and Education

Over half of participants believed that women had better access to contraceptive information and were more educated nowadays:

“younger generations are being more informed about contraception and also sexuality” (Participant 18).

Many of these participants were older women who felt that they lacked contraceptive information in their youth; one participant became upset relaying this as she wished she had known about contraception. However, some participants felt that women still lack information today, particularly those in rural areas as they have less access to education through schools or medical centers:

“in indigenous communities [...] they don’t really give them the opportunity of educating themselves and by knowing their rights and that they can get access to contraception” (Participant 9).

A few participants still felt that women were lacking knowledge on women’s rights, which stems from the culture of not discussing these issues within families. Additionally, two participants noted that the quality of information given today might be lacking, especially since some women still get pregnant using contraception.

7) Affordability

Six participants described money as a barrier, with some identifying this as a bigger issue in rural areas where there is not “a state-owned facility so it’s private” (Participant 17) meaning contraception is not available for free. The link between the barriers of affordability and education were identified as women unable to afford schooling would not be educated about contraception there.

Some participants, women mainly from Panajachel, did not find affordability of contraceptives a barrier:

“in the health center some injections and things like

that are free or they’re very cheap” (Participant 3).

8) Sickness

Almost all participants spoke of the ability of contraceptives to cause sickness such as cancer. This made many fear using it, having heard negatively about it from family, the community and in churches. Furthermore, some participants had personal experiences of contraceptives giving them side-effects, causing one to stop use:

“people get scared because they don’t want something abnormal to be happening to them” (Participant 7).

A few participants had misled beliefs of what contraception could do to their bodies, for example the contraceptive-pill:

“it pretty much damages your organism because it doesn’t dissolve as quick as it should” (Participant 13).

A lack of correct information on the positives and negatives of contraception, including potential side-effects was also found as lacking by some participants.

9) Female Empowerment

Some participants believed that a lack of empowerment in women was affecting contraceptive use, acting as a barrier. Lack of empowerment was linked to reasons for women not confronting men about using contraception for fear of conflict, due to lack of education on the topic.

One participant believed that cultural reasons led families to not encourage women to be open about sexuality:

“the problem of women not being empowered comes from the family” (Participant 8).

However, a few participants felt women, especially younger women, were more empowered nowadays through being better informed so “are trying to take care of themselves” (Participant 3).

10) Summary of Contraceptive Barriers

Fig. 4 shows a summary of the contraceptive barriers identified in this study.



Fig. 4 Summary of contraceptive barriers

C. Influence of Men

1) Opinions on Contraception

Many participants believed that men are a barrier in contraceptive use, with many saying their husbands prevented them from using it. One reasoning was that some men believe that a large family is more beneficial; this could derive from religious and cultural views present in the community which were expressed by the participants:

“he mentioned that the Virgin Mary had a lot of children so his wife has to be the same” (Participant 17).

However, some participants spoke of their husbands either using contraception themselves or encouraging them to use a method. These participants tended to describe a more communicative and respectful relationship with their partners:

“I decided with my partner so we both decided to take care of ourselves” (Participant 18).

For a few couples, both decided against contraception together, for example due to a fear of sickness.

2) Machismo

Some participants mentioned the problem of machismo in males, which is encouraged in families and the community. As a result, women were lacking empowerment to make contraceptive choices:

“mainly the machismo so the male figure trying to boss around or to decide over the women and correct her in what she should do with her body” (Participant 11).

3) Infidelity

Many participants believed that men became jealous if female partners used contraception, for fear this meant they would be unfaithful. This meant that women would not use contraception to avoid conflict over this issue:

“[The] male is saying you are a whore, you are getting that done to your body because you want to go outside and you want to go on the streets and be with other men” (Participant 17).

Some women also described fear of their partners being unfaithful if they used contraception.

4) Abuse

A few participants identified that women could receive physical and psychological abuse from their partners for using contraception; one participant said this could go as far as murder:

“beatings from the husband [...] because she’s going against his will [...] him being so violent that it can go all the way into killing her” (Participant 4).

One participant described being sterilized in secret to avoid problems with her husband. This required the doctors to break the law which required the husband’s consent for this procedure.

D. Overcoming Barriers to Contraceptive Use

1) Empowerment

Empowering women to be confident in using contraception, in refusing sex and planning their families was considered as

important by participants in reducing barriers. This was also discussed in relation to the barrier of men, so that women had the courage to stand up to their partners:

“Women should know that they own their bodies and that they’re able to decide what they want to do with them” (Participant 4).

2) Workshops

Most participants believed that contraceptive workshops would help reduce barriers. Workshops were acknowledged as a resource to allow women to be better informed and in turn, more empowered. Participants also thought that workshops could address barriers of religion and males through information and communication:

“Workshops are the ideal and best way to get through to people so you can inform them, you can educate them” (Participant 8).

a) Audience

Some participants raised the issue of only targeting women with informative workshops. Many participants thought workshops should also involve men to reduce their negative influence in contraceptive use and considered it “very important” (Participant 6).

“They go back home and tell the men and sometimes men don’t believe them or are sceptical” (Participant 6).

However, a few participants were sceptical as to whether men’s opinions could be changed. There were mixed views on whether or not workshops should be separated by gender to be effective, since some thought it might be counterproductive if attended by couples:

“there would be a lot of conflict if they’re together [...] husbands would get upset because the women are asking questions about contraception” (Participant 4).

Some participants also noted that the language barrier could be addressed by having workshops in Caq’chiquel, not Spanish, so more indigenous people would attend and could benefit.

b) Schools

Schools were identified by participants as a suitable venue for contraceptive workshops, to educate young adolescents:

“if you get to change the mentality of the kids, in some years everybody is going to start to think different” (Participant 9).

A few participants discussed how parents could be invited to these school workshops, enabling a wider audience to be reached. One participant did feel that schools might be unsuitable as some are “closed minded” (Participant 3) and would not be willing to provide workshops.

c) Charities

Charities, like the one where the research was conducted, were identified by many participants as another convenient place to have workshops since they already have contact with numerous people, including those in more rural areas:

“I have children that are scholars shipped here [...] that’s how I’m able to get reached” (Participant 18).

3) Government Facilities

Some participants believed that the government had an obligation to provide women with contraceptive information and guidance. It was suggested by some participants for “governmental entities [to] work with the community” (Participant 10) in order to achieve this.

Participants suggested workshops at government-owned medical centres or visiting the communities and holding workshops or meetings locally there. By going into the community, more out-of-reach populations could be targeted. One participant suggested using incentives to encourage attendance: “a raffle [...] to give clothing for babies” (Participant 15).

A few participants also recommended having Caq’chiquel speakers at all government medical centres to ensure that indigenous people were comfortable.

IV. DISCUSSION AND RECOMMENDATIONS

This study identified that a prime reason for women not using contraception was due to their fear of sickness or side-effects, despite women wanting to control their family size. Some participants also expressed a lack of information in contraceptive side-effects and risks. Previous studies show that women commonly cite fear of side-effects as a reason for not using contraception, and for stopping use if they experience them [52], [53]. Educating adolescents, particularly girls, whilst they are forming opinions on contraception methods would be useful in reducing this fear, so they are more open to trying different methods.

1) First Recommendation

Annual contraceptive educational courses should be implemented by the Ministry of Health (MoH) by the end of 2021, in all schools and in community youth groups to ensure adolescents not in education can be reached.

Research shows that many do not finish school and the quality of sex education in schools is inconsistent [54]-[56]. Qualified health-workers should lead these courses so correct and trustworthy contraceptive information, including about side-effects, is given. Adolescents can be quizzed on their contraceptive knowledge after each annual course and attendance monitored in every region, to assess the impact and reach of the courses.

Lack of empowerment in women was a barrier discussed in this study due to the gender inequality present in Guatemala [57]. Overcoming this barrier could in turn reduce the negative influence of males in contraceptive use for some women. Educating the community, especially impressionable youths, would help to promote equality; it could also help reduce the gender-based violence that is prevalent in Guatemala [57], [58]. Enhanced knowledge of gender equality laws would in turn empower women.

2) Second Recommendation

The MoH should implement a gender equality campaign, comprising of a multi-media campaign and gender specific workshops, by the end of 2021, with aid from charities. These

strategies have previously proved successful in changing attitudes and behaviour [59], [60]. Workshops could include educational activities based around gender roles and should take place in communities and schools to target adolescents. The multi-media campaign could provide information about existing Guatemalan laws promoting equality and empowerment, especially regarding sexual health. An example is a law which considers denial of contraception as a form of sexual violence [21]. To assess the campaign’s impact, questionnaires comprising of gender-role attitude questions could be sent out and workshop participants could be interviewed about changes in their behaviour and knowledge [60].

Another major barrier discovered in this study was the strong influence of men in contraceptive decision making for women. Guatemala has a patriarchal society and women sometimes have little say in contraceptive use [61], [62]. Men also see women as their property, which reduces gender equality [62]. Men’s opposition to contraception occurs in other Central American countries for similar reasons of religion and status [63], [64]. However, previous studies for example in Pakistan, have shown that men are less opposed to contraceptive use if they understand and are motivated by its economic and health benefits [65], [66].

3) Third Recommendation

Contraceptive workshops for couples, as suggested by participants, should be implemented by the end of 2021, with initial workshops split by gender and couples attending together in later sessions.

Couples should be encouraged to communicate about contraceptive needs and benefits, which was found lacking in this study. Involving men in contraceptive discussions has been beneficial in contraceptive uptake and continued use in studies in Africa and Bangladesh [66]-[68]; it also improves gender equality [60]. A couple-based intervention in Ethiopia successfully encouraged interspousal communication and contraceptive use [67]. Workshops could be evaluated yearly and led by local charities, APROFAM (the largest non-profit family planning organization and provider in Guatemala [69]) or MoH medical centers; venues could include their respective buildings or in communal areas in municipalities, to ensure rural couples are reached. Incentives could be given to encourage attendance and training locals to takeover community teaching would increase sustainability and in rural areas perhaps acceptability of courses, especially if delivered in Caq’chiquel.

4) Fourth Recommendation

Similar studies like this need to be conducted throughout Guatemala as other areas may have differing barriers and strength of barriers present. Additional research also needs to be conducted regarding men’s personal views on contraception and female use.

The MoH, aided by local charities and APROFAM, should conduct qualitative research with male participants of different ethnicities, in differing regions of Guatemala by 2021, to

explore their opinions and experiences. Following analysis of the results, further recommendations can be made specific to each region, or current ones adjusted.

V. LIMITATIONS

This study may not have considered extremely rural indigenous women's views as it might have been too far for them to travel to the charity for interviews or the charity may not have contact with them. Therefore, these types of participants should also be sought out to interview.

If further research is conducted as per the recommendations, respondent validation, obtaining the participants feedback in relation to the findings, could be used to improve the credibility and validity of findings [37], [70]. To reduce bias, different individuals should conduct and analyse the research and researchers conducting interviews should be local; this would eliminate the need for interpreters, further reducing potential bias.

VI. IMPLICATIONS TO INTERNATIONAL HEALTH

This study has helped in highlighting the need to overcome current barriers preventing women using contraception in Panajachel and the surrounding areas, to reduce the unmet need for contraception. Overcoming the barriers identified in this study will increase the CPR, helping to reduce maternal and infant mortality and in turn help to achieve the fifth, international Millennium Development Goal. It will also help in promoting maternal health and overcoming gender inequality if women are more empowered. Furthermore, by enabling women to limit their family size through contraception, fewer children might face chronic malnutrition, a significant problem in Guatemala, if families can afford to feed all their children [62].

Locally and regionally this study might help women of similar ethnicity or of ethnic minority who might also face similar barriers. In other places internationally, similar barriers of strong religious views and strong male influence might exist which prevent women using contraception. Recommendations from this study might therefore help influence change there. However, the study's limitations must be acknowledged and contextual differences may exist, so further research is necessary.

VII. CONCLUSION

In conclusion, this study has helped highlighting current contraceptive barriers affecting women from Panajachel and the surrounding areas. The main existing barriers identified were religion, fear of sickness or side-effects, the influence of men and lack of empowerment in women. Ways of overcoming existing barriers were explored, with workshops being a popular suggestion that could be organized in a multitude of places. Implementation of suggested recommendations to overcome contraceptive barriers could prove beneficial in promoting maternal health and gender equality.

APPENDIX

Appendix I: Interview Guide

Introduction:

1. The researcher introduces herself and the translator and asks for the participant's name. The documentation sheet is filled out.
2. The researcher reminds the participant of the aim of the study: "This study aims to investigate barriers preventing contraception use in rural Guatemalan women".
3. The researcher and participant review the information sheet and consent form to confirm and gain informed consent.
4. The researcher answers any questions the participant might have.
5. The participant is reminded that they can stop at any time or refuse to answer any questions without any consequences, and they do not need to give a reason for doing so.

Interview number:

Participant code:

Date of interview:

Place of interview:

Duration of interview:

Persons present for the interview (i.e. researcher, translator and interviewee):

Age of participant:

Partner and marital status of participant:

Ethnicity of participant:

Highest level of education obtained by participant:

Literacy Level:

Uses Contraception currently/has in past:

Any notable events during the interview:

Questions

Section 1: General introductory questions

- Do you use contraception/have you ever used it and what are your reasons for this decision?
- What do you think influences your decision to use/not use contraception?
- Why don't some people use contraception?
- How does the number of children you have affect your use of contraception?

Section 2: Pictures

Here are some barriers to contraception use that have been identified from a literature review:



Long Distance (Accessibility)



Males



Knowledge/Education



Religion



Affordability



Culture



Language

Which pictures would you like to discuss? Why-can you explain them in more detail please?

Section 3: Other barriers

- Do you know of any other barriers preventing you using contraception and what are they?
- Do you know if single women use contraception or not and why? What are their barriers?

Section 4: Male influence

- Do males/your partner influence your decision to use or not use contraception and why?
- What is their opinion?
- Do you both have the same opinion on number of children that you want and the spacing in-between them?
- What do you do if you have different opinions?
- Would you ever go against his opinion and what problems would this bring for you if you did?

Section 5: Improving access to contraception

- Do you think barriers preventing use of contraception can be overcome and why?
- How do you think they can be overcome?
- What is the most important barrier to be overcome and why?
- How do you think more women can be encouraged to use contraception?

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