

Peer-Informed Learning on Increasing Contraceptive Knowledge Among Women in

Rural Haiti

by

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Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Science in the Global Health Program
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ABSTRACT

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Abstract

Contraceptive prevalence in Haiti remains low despite extensive foreign aid targeted at improving family planning.¹ Earlier studies have found that peer-informed learning have been successful in promoting sexual and reproductive health.²⁻⁵ This pilot project was implemented as a three-month, community-based, educational intervention to assess the impact of peer education in increasing contraceptive knowledge among women in Fondwa, Haiti. Research investigators conducted contraceptive information trainings to pre-identified female leaders of existing women's groups in Fondwa, who were recruited as peer educators (n=4). Later, these female leaders shared the knowledge from the training with the test participants in the women's group (n=23) through an information session. Structured surveys measuring knowledge of contraceptives were conducted with all participants before the intervention began, at the end of the intervention, and four weeks after the intervention. The surveys measured general contraceptive knowledge, knowledge about eight selected types of modern contraceptives and contraceptive preferences and attitudes. Only test participants showed significant improvement in their general contraceptive knowledge score ($p<0.001$), but both test participants and peer educators showed significant improvement in overall knowledge scores for identifying the types and uses of modern contraceptive methods. Assessment for knowledge retention remained significantly higher four weeks

after the intervention than prior to the intervention. Therefore, a one-time, three-hour peer-based educational intervention using existing social structures is effective, and might be valuable in a population with minimal access to education and little to no knowledge about contraceptives.

Dedication

This thesis is dedicated to all women in Haiti for their undying optimism despite the challenging adversity that they face.

Contents

Abstract.....	iv
List of Tables	ix
List of Figures	x
Acknowledgements	xi
1. Introduction	1
1.1 Access to Sexual Health in Haiti.....	1
1.2 Perceived Barriers to Contraception	2
1.3 Peer-based Education.....	4
1.4 Project Description.....	5
1.5 Research Collaborators	6
2. Methods	7
2.1 Setting.....	7
2.2 Local Research Team.....	9
2.3 Women’s Groups	10
2.4 Participants	11
2.4.1 Peer Educators	11
2.4.2 Test Participants.....	12
2.5 Procedures	12
2.5.1 Recruitment and Training of Peer Educators	12
2.5.2 Test Participants for Contraceptive Information Session	13

2.6 Curriculum	15
2.7 Survey Development.....	20
2.8 Analysis.....	22
2.9 Ethics Approval	23
3. Results	24
3.1 Demographics	24
3.2 Contraceptive Preference and Attitudes	25
3.3 Intervention Effects	27
3.3.1 General Contraceptive Knowledge.....	28
3.3.2 Knowledge on Contraceptives.....	29
4. Discussion.....	33
4.1 Peer-Informed Educational Intervention	33
4.2 Contraceptive Preference and Attitudes	36
4.3 Study strengths	38
4.4 Study Limitations and Recommendations.....	39
4.5 Conclusion	41
5. References.....	54

List of Tables

Table 1. Teaching Table Introducing Contraceptive Methods During Training and Information Session	17
Table 2. Demographic Characteristics.....	25
Table 3. Attitude and Preference Towards Contraceptives (n=27)	26
Table 4. Choice of Contraceptive Among Non-Users Immediately After Intervention (Immediate Posttest) (n=17)	27
Table 5. Mean Score of General Contraceptive Knowledge Among Peer Educators and Test Participants	28
Table 6. Mean Knowledge Scores for Peer Educators.....	31
Table 7. Mean Knowledge Scores for Test Participants.....	32

List of Figures

Figure 1. Recruitment Process for Peer Educators and Test Participants	15
Figure 2. Take-home Pamphlet	19
Figure 3. Questions to Measure General Knowledge of Contraceptive.....	20
Figure 4. Sample Questions to Measure Knowledge for one of the Eight Selected Modern Contraceptive Methods.	20
Figure 5. Questions for Contraceptive Attitudes and Preference	21
Figure 6. Overall Mean Difference in Knowledge Scores for Types of Contraceptives....	30

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1. Introduction

1.1 Access to Sexual Health in Haiti

Universal access to sexual and reproductive health is important to achieve gender equality and empowerment of women and girls. Statistics derived from indicators of the 2015 Millennium Development Goals have suggested progress,⁶ but current efforts remain insufficient and non-uniform. In regions like Sub-Saharan Africa and Oceania, access to reproductive health remains low. Although the Latin American and the Caribbean region has reported high access to reproductive health,⁷ such is unlikely in a country like Haiti, where levels of contraceptive prevalence and unmet family planning remain markedly worse than that of the region.⁸

In Haiti, only 34.5% of married Haitian women, or their sexual partners, are using some form of contraception. However, about four out of 10 married women who do not want to become pregnant are not using contraception.⁸ This misalignment in a woman's reproductive preference and contraceptive behavior not only suggests existing barriers in the uptake of contraception, but also identifies a major risk factor for unintended or unwanted pregnancies.^{9,10} The problem of unwanted pregnancy is further complicated when women who do not want to become pregnant die during childbirth, or when the baby dies soon after birth because of economic incapacity.¹¹ In Haiti, the maternal mortality rate is up to 380 per 100,000, the highest in the Western Hemisphere, and the mortality rate for children in Haiti who die before five years is at about 69 per

1000 live births, both indicators being greater than the world's average.⁸ In addition, the practice of illegal abortion that is reported to be common in the region further exposes women to other long-term health complications, such as injury to pelvic organs and even death.¹²

Without effective solutions to control the present situation, the women in Haiti are continuously exposed to reproduction dilemmas that do not allow them to decide if they want to be pregnant, nor choose when they wish to be pregnant.¹

1.2 Perceived Barriers to Contraception

The goals of contraception are to allow a woman to decide if she wants to be pregnant, choose when she wishes to be pregnant, and prevent unwanted or unintended pregnancies. In both quantitative and qualitative studies previously done in Haiti, the findings have revealed that the goal of contraception has been laden with misinformation and accurate knowledge needs to be provided to rectify the misunderstandings.⁹⁻¹⁴

Despite the fact that Haitian women desired smaller family sizes in numerous surveys^{13,14} and considered unintended pregnancies as undesirable to family life,¹ the barriers to contraceptive uptake have been reinforced by a paucity of appropriate information that in turn also bred misunderstandings. Some of the barriers contributing to the lack of contraceptive knowledge in Haiti include the fear of side effects, the fear of infertility, and the belief that only women who have children should use contraceptives.

^{1,13,14} Such misunderstandings also have far reaching effects because information is more likely to be transmitted horizontally through peers, than in a vertical direction, such as from a senior member of the household. ^{13,14} Another important factor not related to knowledge distortion is financial cost and affordability. ¹⁴

Traditional contraception from local practices has also been identified as a competing factor to modern contraception, ¹³ outcompeting it in both accessibility and affordability. Traditional methods use daily commodities and include practices such as consuming ice water or parsley tea after sex, having sex in salty water or ingesting castor seed to prevent pregnancies. ^{1,13-15} A finding from Lathrop et al. explains that the use of traditional methods after sexual intercourse indicates a high desire to prevent conception. The persistent use of traditional methods - even when many women become pregnant after using them - suggests the lack of awareness of other effective contraception methods. ¹⁴ Further studies of herbal infusions used to induce abortion also reported adverse outcomes, such as severe intoxication and multiple organ system failure. ¹⁶

All of these studies have recommended that an educational intervention designed to emphasize the purposes of contraception and tackle misinformation could increase the accuracy of contraceptive knowledge and promote better use of family planning based on an informed decision. ¹⁷⁻²⁰

1.3 Peer-based Education

Peer-based educational interventions have been documented in health promoting activities, including sexual and reproductive health promotion in both developed and developing countries.^{5,21-23} The fundamentals of using such community-based educational programs include the motivations of peer pressure, the advantage of existing social networks in the community, and an alternative strategy to resolve the reluctance to engage with health professional or an older adult on sensitive personal issues.^{21,24} The use of peers as agents for spreading information through their individual social network also provides an avenue to cover larger geographical areas.^{25,26}

Peer-based interventions coupled with other methods have also been found to be successful. One randomized controlled study conducted in Cameroon examined the combination of peer education, social activities, and the dissemination of printed materials, and had some success in preventing sexually transmitted disease/HIV transmission and unwanted pregnancies in adolescents aged 12 to 24.² Other findings that integrated peer education with HIV and sexual and reproductive health services among young people in Vietnam noted similar effects. Outcomes included improvements in HIV testing uptake, in repeated testing, and in HIV/AIDS knowledge, attitudes, and risk perception.³

1.4 Project Description

This project was implemented as a three-month pilot of a community-based educational intervention designed to assess the impact of peer education in increasing contraceptive knowledge among women in Fondwa, Haiti. Emulating the train-the-trainer model,²⁷ the community engagement aspect of the project ensured that peer educators would be able to train their respective groups. First, research investigators conducted contraceptive information training to pre-identified female leaders of existing women's groups in Fondwa, recruiting these leaders as peer educators. Later, these female leaders shared the knowledge learned with groups of women in an information session.

The main objective of this project was to determine if peer-approached learning would be effective in increasing contraceptive knowledge among women in rural Haiti. The assessment of the peer education model included surveys conducted before the intervention (i.e. training or information session), at the end of the intervention, and four weeks after the intervention. The hypotheses are listed below:

1. Peer Educators are able to transfer learned knowledge to the women in the community.
2. Women who have received peer education continue to have higher knowledge of contraceptive uses at four weeks follow up than before receiving intervention.

1.5 Research Collaborators

This project was completed in collaboration and partnership with Duke Kunshan University in Kunshan, China, Duke University in Durham, North Carolina, United States, and the non-governmental organization (NGO) Family Health Ministries (FHM), Durham, North Carolina, USA.

The project was conducted within the facilities of Family Health Ministries (FHM) situated in the Leogane Commune, Haiti. FHM is a US-based NGO that has been conducting community-based research for the last 23 years to discover strategies that will improve health delivery in low resource Haitian communities. FHM is currently establishing three separate health care facilities in Haiti - one existing facility in Port-au-Prince, and two others that are currently under construction in Fondwa and Leogane City, a birthing center and a surgical facility, respectively. Through its partnership with Duke University, FHM has collaborated in and aided many previous research projects, lending both technical and local expertise in the area of maternal and child health care within the Haitian local communities. All findings from this research will aid in the development of programs for the birthing center in Fondwa, which is expected to be operational by March 2016.

2. Methods

2.1 Setting

The study was set in Fondwa, Haiti, a rural community with an estimated population of about 12 000. It is located in the mountains about 45 minutes from Leogane City, and it is part of the Leogane Commune within the Ouest Department that is a modest two-hour drive west of the national capital of Port-au-Prince. One main road passes through the mountains from Leogane City to the Southwest city of Jacmel on the Caribbean side of the island. Access to most communities not along the main road is limited to dirt paths or poorly cemented roads.

Besides a few Fondwa residents who live along the main road in tin-roof shelters, the buildings that line the road are commercial properties, such as the micro-finance bank (FONKOZE), a convenience store, a restaurant and an intermittent weekly market that is held only on Wednesday and Saturday. The majority of Fondwa residences are located near the base of the mountain in a valley or along the hillsides. The modes of transportation in and around the community beyond the main road are limited to motorbikes, donkeys, or foot travel.

Educational facilities are sparse, with the majority offering schooling no further than the equivalent of middle school in the United States. The only university, the University of Fondwa, offers degree programs in agronomy, veterinary medicine, and business, as well as non-degree courses in English and Haitian Creole. Although French

or Haitian Creole is the language of instruction, most residents only speak Haitian Creole, and French is rarely spoken. After the 2010 earthquake, most of these educational facilities were destroyed and are now mainly operating out of temporary shelters.

Permanent structures dedicated to healthcare are few. Health services were provided either by sporadic foreign medical team visits, or through a non-daily, NGO-supported (Heart to Heart) makeshift health clinic that operates out of a cargo container. Service coverage is basic and is often motivated by specific interest of an NGO (e.g. contraceptive mobile clinic by Profamil). Most Fondwa residents who need urgent medical attention have to travel 45 minutes by local public transportation to the nearest hospital, either at Jacmel or Leogane City.

Houses consist of tin-roofed brick buildings or wooden sheds that are often occupied by one extended family and are separated by land used for farming or rearing of livestock. Occupancy within a household exceeds that of the nuclear family, often with other related relatives and more than two generations sharing the same roof. Most houses lack electricity and running water. For all residents, water is supplied at specific water points that pump up ground water, or at water catchment systems that collect rainwater.

The majority of Fondwa residents do not have any wage employment. Often referring to themselves as “peasants”, they survive on subsistence farming and the

selling of crops such as black beans, sweet potato or corn. Men usually dominate the agricultural labor work, while women have more presence in the market place or within the family, occupying themselves with childrearing.

2.2 Local Research Team

To ensure confidentiality and professionalism throughout the study, only local research members who had completed Responsible Conduct of Research training with the research investigators were permitted in the field to assist in data collection and/or translation. For the sake of better understanding the context of the research, local research members who were involved in translation work underwent further training conducted by the investigators. This included training in interviewing techniques, and training related to contraceptive methods and birth spacing. For purposes of standardization, all investigators have been trained in their previous institutions on Ethical Conducts of Research, Research Practices and Methods, and Medical Sciences.

A total of five local male research members were hired to assist in the operations of the study. It was believed that male research members would not pose problems when interviewing women about their reproductive and sexual health in this community based on the knowledge that the majority of traditional birth attendants in Fondwa are male and that they are all well accepted by the women in the community.²⁸

Recruitment of research members was done through recommendation from Family Health Ministries, as well as from partners within the community. All local

research members were Fondwa residents who were well recognized by the community, had completed or were completing tertiary-leveled education, and had previous working experience with other NGO or foreign academic institutions. Speaking English was not a requirement for research members only involved in data collection. Only local research members who had a dual-role in data collection and translation were required to be fluent in both English and Haitian Creole. All local research members were compensated with a daily salary that was negotiated before they were hired.

2.3 Women's Groups

The two largest women's groups in Fondwa have been in existence since 2001. Each group consists of about 35 and 50 women respectively, and the youngest member is 14 years old. The activities of the women's groups range from food transformation training (e.g. processing fruits into canned jam spreads) and water management programs to holding information sessions on the prevention of sexually transmitted disease and issues on sexual violence.

Through informal conversation, it was learned that the leaders are well recognized for their volunteer-based efforts on behalf of women in the community. The information shared by the female leaders with their group was either self-taught or learned through training funded by varied NGOs located in the capital city, Port-au-Prince. Prior to this project, the female leaders of the group had not received any formal

training or conducted any information sessions related to contraceptive or family planning.¹

The women's groups hold meetings at least once a month, most often on the 1st Monday of every month. Meetings are either held within a school complex in the afternoon after school hours, or in a specific wooden shack located 15-minutes by motorcycle down the mountain valley, on a dirt road. Attendance at the meetings is inconsistent and subject to the time availability of each woman. Membership in the group is established by attending at least three consecutive meetings.

2.4 Participants

2.4.1 Peer Educators

Through referrals from our local research team members, we approached and recruited a female leader from each of the two largest women's groups in Fondwa. Each leader also nominated one more woman from within the women's group to co-host the subsequent information session, thus a total of four women were recruited to be peer educators. The peer educators were selected if they were comfortable discussing topics on sexual health, had some formal education and were able to commit their time when needed for at least three months. English was not a requirement, and all peer educators

¹ It is noted that the non-governmental organizations, Kore Timoun and Profamil have had a program that involves training monitrices (a form of public health worker) in Haiti for over 20 years. Approximately 15 monitrices from all over the country have been certified in contraceptive counseling and are allocated in different rural communities, including Fondwa. Their main duty is to perform house visits and give appropriate counseling sessions.

spoke or wrote Haitian Creole and could speak minimal French. Informed consent was obtained from all of the peer educators. The peer educators participated throughout the study by undergoing training with the research investigators, and then holding an information session with their respective women's group.

2.4.2 Test Participants

The contraceptive information session was publicized and promoted by the peer educators through word of mouth, but not exclusively to women who were members of the women's group. We did not restrict access to anyone who wanted to attend the information session, but for research and ethical reasons, survey instruments were only handed out to attendees who were females between 18 to 49 years, and were residents of Fondwa. Informed consent was received from every recruited individual, and a total of 23 participants were recruited. English was not a requirement and all test participants could either speak and/or write Haitian Creole.

2.5 *Procedures*

2.5.1 Recruitment and Training of Peer Educators

Upon expressing interest to participate in the study, dates were discussed and set after a preliminary meeting with one of the two female leaders prior to the training session. The dates for training, holding the information session with the women's groups, and four-week follow-up after intervention were discussed and set after negotiation with the other female leader and their co-hosts. Nevertheless, it was

understood that the scheduled dates were subject to change in response to unforeseen circumstances. The proposed peer educator training dates were set to take place and finish the day before meeting with the women's groups. This was done to ensure availability of the female leader and their co-hosts, and to fit in to their monthly meeting schedule.

The four peer educators were invited to attend a two-day, 10-hour, training workshop conducted by the research investigators of the study. Prior to the training sessions, informed consent was sought and a pretest survey was conducted to obtain baseline information on contraceptive knowledge based on the training curriculum.

At the end of the second day of training, an immediate posttest survey similar to the pretest was carried out to assess acquired information from the training session, and knowledge adequacy in conducting the information session. A third survey to evaluate knowledge retention was conducted at four weeks after the training session. All peer educators were compensated for their time with in-kind with meals, and snacks that were provided throughout their participation time. All surveys were conducted face-to-face by a local research member.

2.5.2 Test Participants for Contraceptive Information Session

A total of 23 attendees that met the inclusion criteria were recruited as test participants for the study. Prior to the information session, informed consent was sought, and a pretest survey was conducted to obtain baseline information on

contraceptive knowledge based on the training curriculum. The information session was conducted in a single day and completed in approximately three hours.

After the information session, an immediate posttest survey similar to the pretest was carried out to assess acquired information from the information session. A follow-up survey to assess knowledge retention was done at four weeks after the information session, during two other group meeting times. All participants were compensated for their time with snacks provided throughout their participation time.

All surveys were conducted face-to-face by a local research member. To minimize loss to follow-up, telephone-based survey interviews were also conducted to participants who were not able to attend any of the two follow-up meetings. For ethical reasons, preliminary findings from the surveys were shared with the women during follow-up meetings. To prevent conflict with collected data, the research investigators only clarified any knowledge misunderstandings reflected by findings after the follow-up assessment was completed.

For pretest and immediate posttest, we obtained surveys from all 23 participants. At follow-up, we only managed to retain 19 test participants: four test participants could not be contacted or they did not possess a mobile device. Figure 1 highlights the key events for the entire project.

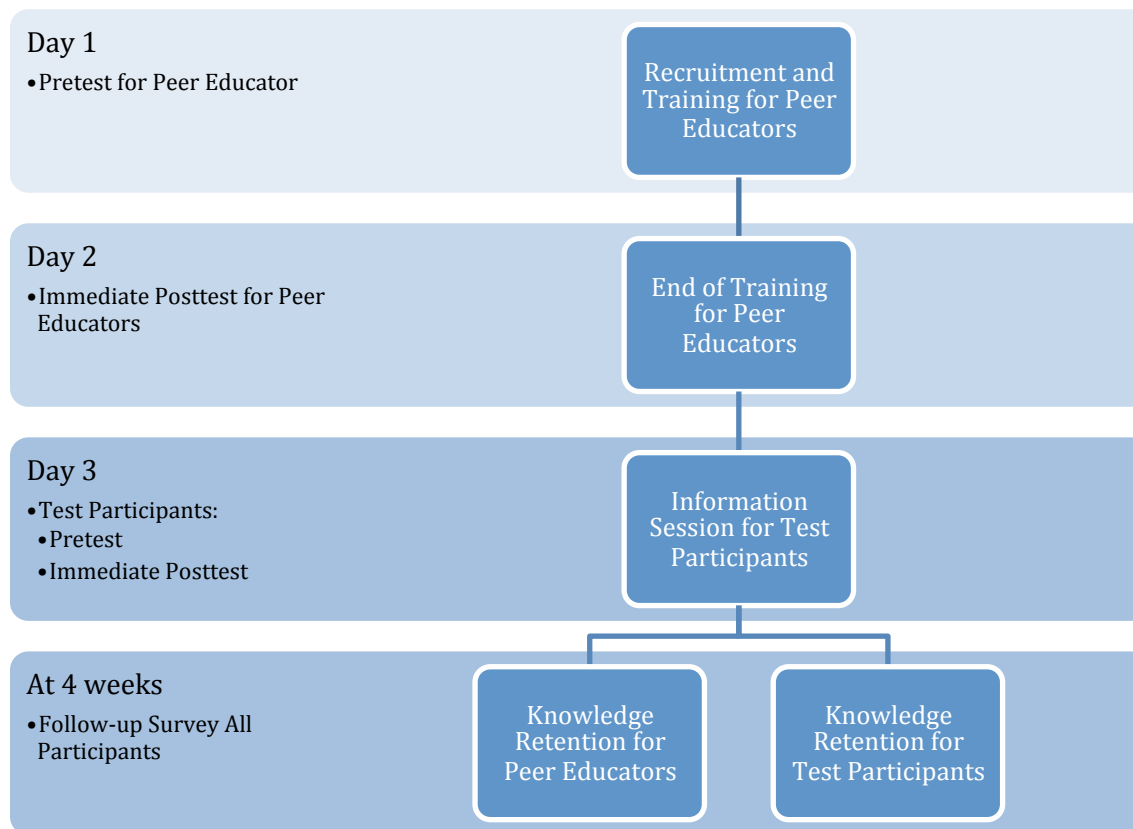


Figure 1. Recruitment Process for Peer Educators and Test Participants

2.6 Curriculum

The training program for the peer educators was developed using materials adapted from the Planned Parenthood Federation of America,²⁹ the World Health Organization,³⁰ USAID: Knowledge for Health Project Toolkits,²⁵ and information on traditional methods based on previous studies.^{13,14} All materials were produced with guidance from medical professionals who were part of the investigator team. Keeping aligned with the identified needs of the community, the program focused on four main themes related to contraception and birth spacing. They were 1) the types of modern contraceptives available, including an introduction to long-acting reversible

contraceptives (LARCs) and permanent sterilization; 2) how to use the different types of modern contraceptives; 3) the suitability and possible side effects of modern contraceptives, and the effectiveness of traditional contraceptives; and 4) where to access modern contraceptives within the community.

The types of modern contraceptives introduced during the training were selected based on what had been observed to be available and accessible in Haiti. Other methods that the birthing center in Fondwa would hope to offer were also listed to assess if there would be an expressed interest within the community after the training or information sessions. The eight types of modern contraceptives introduced were male condoms, female condoms, intrauterine devices (IUDs), implants, hormonal pills, injectables, tubal ligations and vasectomy. To ensure accuracy of information eventually passed down to the women's group, the content for each modern contraceptive method was described by answering the important questions about each method: What is the method? Is it suitable for females or males? Is it a reversible or permanent method? Is it a discreet or obvious method to your partner during usage? What is the necessary duration of use? Does it require a visit to a health clinic? And, finally, is the method suitable for protection against sexually transmitted disease (STDs)? A teaching table and pamphlet were created in the same format for better illustration and understanding (Table 1 and Figure 2). The pamphlet was designed to be entirely pictorial due to the low literacy levels in the community. To ensure that the pamphlet content was still relevant and the

intended meaning could be grasped, the pamphlet was described and emphasized throughout the training program. Other teaching methods included demonstrations, pictorial guides, drawings and hands-on activities, especially for showing how to use each modern contraceptive method.

Table 1. Teaching Table Introducing Contraceptive Methods During Training and Information Session

Types	Per Use		Short-Term		Long-term		Permanent	
	Male Condom	Female Condom	Pills	Injectable	IUD	Implant	Vasectomy	Tubal Ligation
Female/Male	M	F	F	F	F	F	M	F
Reversibility	✓	✓	✓	✓	✓	✓	X	X
Duration	Use once/Every time during sex		One pill every day, same time, for a month	Every 3 months	Up to 10 years	2-5 years	Forever	
Visit Health Clinic	X	X	X	✓	✓	✓	✓	✓
Discreet?	X	X	X	✓	✓	X	✓	✓
Protect against STDs	✓	✓	X	X	X	X	X	X

Apart from the core of the training workshop that focused on contraception, the training also provided some basic background knowledge on the processes of pregnancy and birth spacing, and the mechanism of peer education (e.g. how information can be effectively transmitted horizontally and the pivotal role of being a peer leader). The content of the material was revised several times with the purpose of keeping it simple, concise, and worded-appropriately for understanding within the community, with much assistance from our local research team.

Due to the primary investigator's lack of knowledge of Haitian Creole, a local research member translated in real-time while the primary investigator delivered the curriculum to the peer educators. In order to ensure the correct information was relayed, the entire curriculum manuscript was rehearsed at least four times by the primary investigator and the local research members in the days before the training with the peer educators. The goal was that upon completion of the training program, the peer educators would be able to develop a personalized curriculum based on what had been learned during the training, to share with the women's group. Teaching materials such as contraceptive samples and pamphlets were provided to the peer educators when they conducted their information session. Further logistical support for the peer educators included the set up of the site for the information session and provision of refreshments for all attendees.

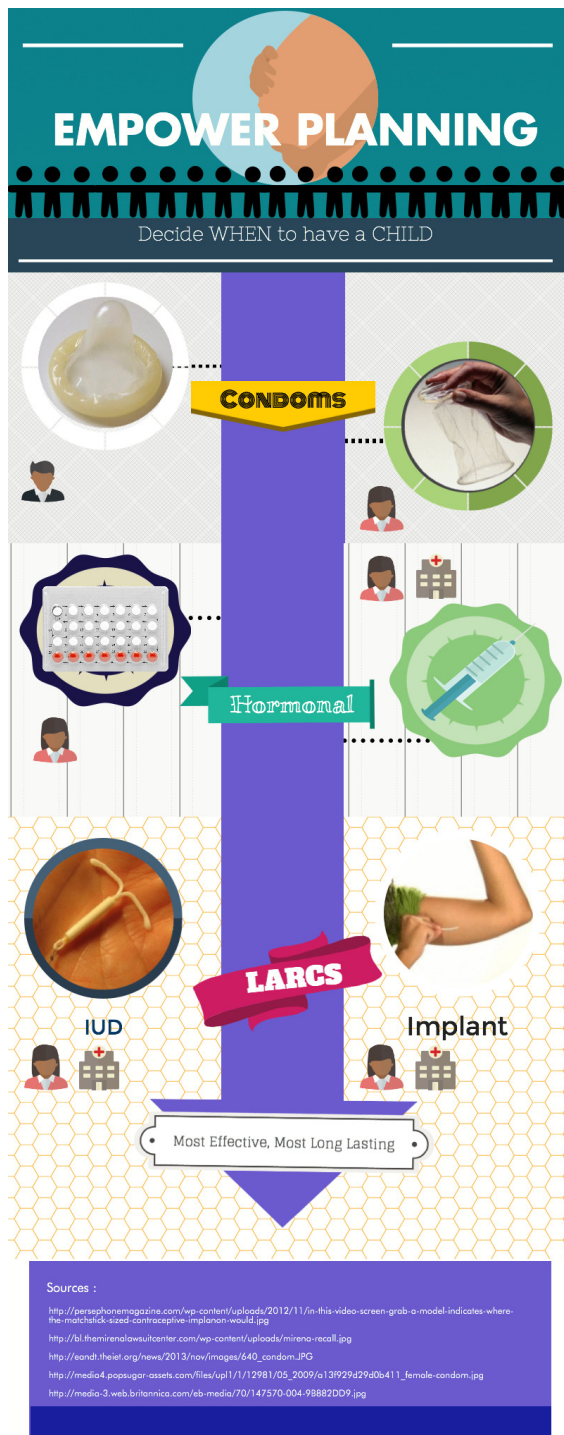


Figure 2. Take-home Pamphlet

2.7 Survey Development

The survey was designed according to the curriculum of the training program by adapting questions from a variety of reproduction health and maternal health questionnaires previously developed by USAID's Demographic and Health Surveys

- Do you know what contraceptives are?
- Do you think using a contraceptive method can help you decide if you want a child and when to have a child?
- Do you think using a contraceptive method can help to prevent you from having any unwanted/unintended pregnancies?
- Do you think starting a contraceptive method now can affect your chances of getting pregnant later?
- If you are using a non-permanent contraceptive method and you are ready to have a child now, do you agree that you can stop using the method anytime?
- Can a woman without children use contraceptive methods?
- If a contraceptive method is not suitable for you, what can you do?
- How long do you think you should wait between having one child and the next?
- Can you become pregnant if you had sex without protection?

Figure 3. Questions to Measure General Knowledge of Contraceptive

- Pills
 - Do you know about it? Yes/No (*proceed only if they know*)
 - Do you know how to use it? Yes/No
 - Do you think _____are for men or women? Men/Women
 - How often do you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
 - Do you know if it can be seen by someone else when you use it? Yes/No
 - Does it protect you from sexually transmitted disease? Yes/No

Figure 4. Sample Questions to Measure Knowledge for one of the Eight Selected Modern Contraceptive Methods.

Program³¹ and Knowledge for Health Project.²⁵ The surveys were created to assess demographic characteristics, current contraceptives use, general knowledge of contraceptives (Figure 3), knowledge for the different types of modern contraceptive (Figure 4), and contraceptive attitudes and preferences (Figure 5).

- Who do you think should use contraceptives?
- Who do you think should decide whether to use a contraceptive method?
- When choosing a contraceptive method, will you prefer short (i.e. 1-3 months) or long-term (more than 2 years) method?
- Would you mind using a family planning method,
 - If the method was not hidden from your partner?
 - If the method required a procedure by the doctor to put something inside the body?
- When you no longer want to have children, would you consider a family planning method that will make you no longer able to have any more children?
- Would your partner/community/religion accept that you use a family planning method that will make you no longer able to have any more children?
- (If currently not using any method) Which of the eight contraceptive methods will you prefer?

Figure 5. Questions for Contraceptive Attitudes and Preference

Additional questions were also sourced from previous studies (See Appendix for survey questionnaires).^{13,14} Several questions were formatted using skip logic to ensure that the questions asked would remain relevant. For example, if a participant had indicated that she had not heard of hormonal pills, she would skip all questions related to hormonal pills and be questioned on another contraceptive method.

All survey instruments were translated from English to Haitian Creole before the primary investigators arrived in Haiti. Local research members, specifically the

translators, reviewed the surveys again in Fondwa to ensure that the intended questions were asked in the same manner after translation, and that the vocabulary would be suitable. Several questions in the surveys sought sensitive information so confidentiality related to the release of information was consistently emphasized throughout data collection. The surveys were revised when participants expressed confusion or did not understand a question. Each survey took about 30 minutes to complete, and recruited participants were compensated with cookies and a drink.

2.8 Analysis

A total of four peer educators and twenty-three test participants were recruited. At pretest and immediate posttest, all recruited participants were included for analysis. At follow-up, four test participants were lost to follow up, leaving only 19 test participants for analyses.

All data were entered into Microsoft Excel for Mac 2011 while in Haiti. The data were coded and imported to Stata (Version 13.1) for processing and analysis in China. Missing responses in surveys were both random and minimal, and recorded as absent in the data list. Noting the lack of experience in conducting surveys, data collectors were constantly reminded of the importance of each survey question, and each survey was reviewed after completion. However, due to the nature of this study, missing responses at pretest and immediate posttest could not be recovered once the intervention had commenced or when the participants had returned home after the information session.

The mean knowledge score difference from pretest to immediate posttest, and pretest to follow-up for general contraceptive knowledge and the different types of modern contraceptives were compared using two-sided, paired t-test at a significant level of $p < 0.05$. Variables associated with demographic characteristics, contraceptive attitudes and preferences, and contraceptive practices were descriptively analyzed with frequency and percentage distribution.

2.9 Ethics Approval

Ethical approvals have been obtained from the US Institution Review Board of Duke University and the Haitian Institutional Review Board (Misyon Sante Fanmi Ayisyen), which is registered with the US Department of Health and Human Services (IRB 6585/ FWA 13290).

3. Results

3.1 Demographics

Table 2 shows the demographic characteristics of all recruited participants (n=27), peer educators and test participants. The average ages of the peer educators (n=4) and the test participants (n=23) were 33.50 ± 2.08 and 33.39 ± 8.51 , respectively. All the peer educators had at least elementary level education, and were engaged in work, whether unpaid or paid. Among test participants, 21 out of 23 had received at least elementary level education, and 60% (14/23) reported that they were unemployed.

All but one of the recruited participants expressed that they had had sex before, and the average sexual debut ages for peer educators and test participants were 21.5 and 16.8 years, respectively. Among them, 22 were mothers, and had between one to eight children each. Seventeen of the twenty-two mothers expressed that they did not consider family planning when they had children. At the time of the study, only 14 out of 27 recruited participants indicated that they were currently living with a male partner.

Of the 63% (17/27) of women who expressed that they did not wish to conceive in the future, only eight were currently using contraception. Methods used by current users (12/27) included male condoms (5), hormonal pills (2), injectables (4), and tubal ligation (1). For those who expressed a desire to have children later, the ideal total family

size was no larger than three, and the majority (19/27) of all recruited participants stated that the decision to have children was a personal decision.

Table 2. Demographic Characteristics

Baseline Characteristics N (%) Range, mean, (SD)	Peer Educators (n=4)	Test Participants (n=23)
Age	31-36, 33.5, 2.08	21-49, 33.4, 8.51
Education		
Never went to school	-	2 (8.7%)
Elementary	1	16 (69.6%)
≥Middle	3	5 (21.7%)
Employment		
Not employed	-	14 (60.9%)
Job with salary	3	3 (13.0%)
Unpaid work	1	6 (26.1%)
Living with Male Partner	1	13 (56.5%)
Had Sex Before	4	22 (95.7%)
Age of Sexual Debut	18-25, 21.5, 3.51	5-24, 16.8, 3.83
Have Children	1	21 (91.3%)
Number of Children	3	0-8, 3, 2.42
Did Plan for Children	0	5 (23.8%)
Do not want any more Children	1	15 (65.2%)
Decision to have children		
Myself	4	15 (65.2%)
Partner	-	4 (17.4%)
Religion	-	1 (4.35%)
Myself and Partner	-	3 (13.0%)
Current Contraceptive User	2	10 (43.5%)

3.2 Contraceptive Preference and Attitudes

The purpose of assessing contraceptive attitudes and preferences was to get a preliminary idea of what types of contraceptive methods women in Fondwa would prefer, particularly after the educational intervention. Variables for assessing contraceptive preference included the duration (long/short), transparency from partner,

willingness to take up permanent methods (i.e. sterilization) when they no longer want to have children, and how accepting they perceived others would be of choosing a permanent method (Table 3).

Among the study population, 19 out of 27 (70.3%) women believed that both women and men should use contraceptives. Similarly, 15 out of 27 (55.6%) believed that the decision to use contraceptives was also a shared responsibility. Regarding external factors, thirty-seven percent of the participants (10/27) did not perceive their community or religion to be an impediment to contraceptive use.

Table 3. Attitude and Preference Towards Contraceptives (n=27)

	Pretest	Immediate Posttest
Prefer long or short term method:		
Long term (> 2 years)	16 (59.3%)	19 (70.4%)
Short term (1-3 months)	9 (33.3%)	8 (29.6%)
Would not mind a method not hidden from partner	20 (74.1%)	23 (85.2%)
Would not mind if the method required a procedure to put it inside the body	19 (70.4%)	14 (51.9%)
Would consider sterilization when no longer want to have children	24 (88.9%)	25 (92.6%)
Would your _____ accept sterilization:		
Partner	12 (44.4%)	-
Community	11 (40.7%)	-
Religion	12 (44.4%)	-

Prior to the educational intervention, over 40% of recruited participants perceived either their partner, community or religion to be accepting of their decision to pursue a method that would not allow them to have any more children. For all other variables, their responses did not differ greatly after the intervention compared to

baseline findings. After the intervention, the majority of women preferred long-term methods (19/27), expressed that they would not mind a contraceptive method visible to their partner (23/27), and would consider sterilization when they no longer want to have children (25/27). However, when they were asked to indicate which contraceptive method they were currently using, or would like to use if they were non-users, among those who preferred long term methods, 10 out of 19 were currently using a short-term contraceptive methods and four chose one of the short-term contraceptive methods. Table 4 describes the choice of contraceptive method among non-users immediately after the intervention. It was also noted that any invasive contraceptive methods (i.e. requiring minor medical procedure) were less preferred at immediate posttest (51.9%) than pretest (70.4%).

Table 4. Choice of Contraceptive Among Non-Users Immediately After Intervention (Immediate Posttest) (n=17)

Male Condoms	6
Female Condoms	2
Injectables	3
IUDs	1
Tubal Ligation	1
Do not want any method	4

3.3 Intervention Effects

The surveys conducted before and immediately after the training or information session were used to obtain baseline characteristics, as well as to assess the impact of the

training and information session, respectively. The third survey done four weeks later was used to assess knowledge retention after the training or information session.

At baseline, all peer educators and 15 out of 23 test participants knew about contraceptives. The main source for contraceptive knowledge was health providers (10/27), but other sources included male partners, family members, friends or neighbors, radio or self-taught.

3.3.1 General Contraceptive Knowledge

Table 5 describes the differences in score for general knowledge of contraceptives among peer educators and test participants before and after the educational intervention (i.e. training or information session), and at the four-week follow-up. A total of nine questions were considered, and one point was given to each correct answer with a maximum score of nine.

Table 5. Mean Score of General Contraceptive Knowledge Among Peer Educators and Test Participants

	Pretest vs. Immediate Posttest				
	Pretest	Post test	Pretest-Post test	P-value	95% CI
Peer Educators (n=4)	8.0	8.50	0.50	0.18	-0.42,1.42
Test Participants (n=23)	4.48	7.91	3.43	0.00	2.31,4.56
	Pretest vs. Follow-up				
	Pretest	Follow up	Pretest-Follow up	P-value	95% CI
Peer Educators (n=4)	8.0	9.0	1.00	0.09	-0.30,2.30
Test Participants (n=19)	4.47	7.37	2.89	0.00	1.50,4.29

Before the intervention, the average score for peer educators was notably high at about eight out of nine points. There was no significant difference in general knowledge

scores among peer educators at immediate posttest or at the four-week follow-up when compared to pretest.

Comparing the mean scores at immediate posttest and the four-week follow-up to pretest, the knowledge scores for test participants were significantly higher ($p < 0.001$) than before the educational intervention. The most common mistakes made by both groups were that using a contraceptive now would affect chances of future pregnancies, and that contraceptives were only reserved for women who had children.

3.3.2 Knowledge on Contraceptives

Based on the curriculum, a maximum of six questions were asked for each of the eight types of modern contraceptives, and one point was given to each correct answer. The overall score for all methods has a maximum of 39 points. Table 6 and Table 7 outline the differences in knowledge scores among peer educators and test participants when comparing immediate posttest and follow-up to pretest, respectively.

At baseline, peer educators (26.3/39) had a greater overall knowledge of all eight types of contraceptive method than test participants (7.61/39). The common mistakes made between both groups were not being able to determine if a method was discreet or obvious to their partner during usage, and whether the method could protect against sexually transmitted disease.

At immediate posttest, peer educators had a significant increase in overall score for all methods, and in particular for injectable and IUD. Among test participants, each

method had significant improvement in individual scores and all test participants were able to identify at least seven out of eight methods. In addition, their overall score for all methods also increased fourfold to 31.4 out of 39 points. Although the common mistakes made were similar to pretest, they were reported at lower frequency after the intervention.

At follow-up, the knowledge score for peer educators improved to 100%.

Assessing the duration effect of the intervention at four weeks after the intervention, the knowledge retained by the peer educators and test participants remained significantly higher compared to pretest ($p < 0.001$). Figure 2 provides an overview of the mean difference in scores for all eight methods at pretest, immediate posttest and follow-up.

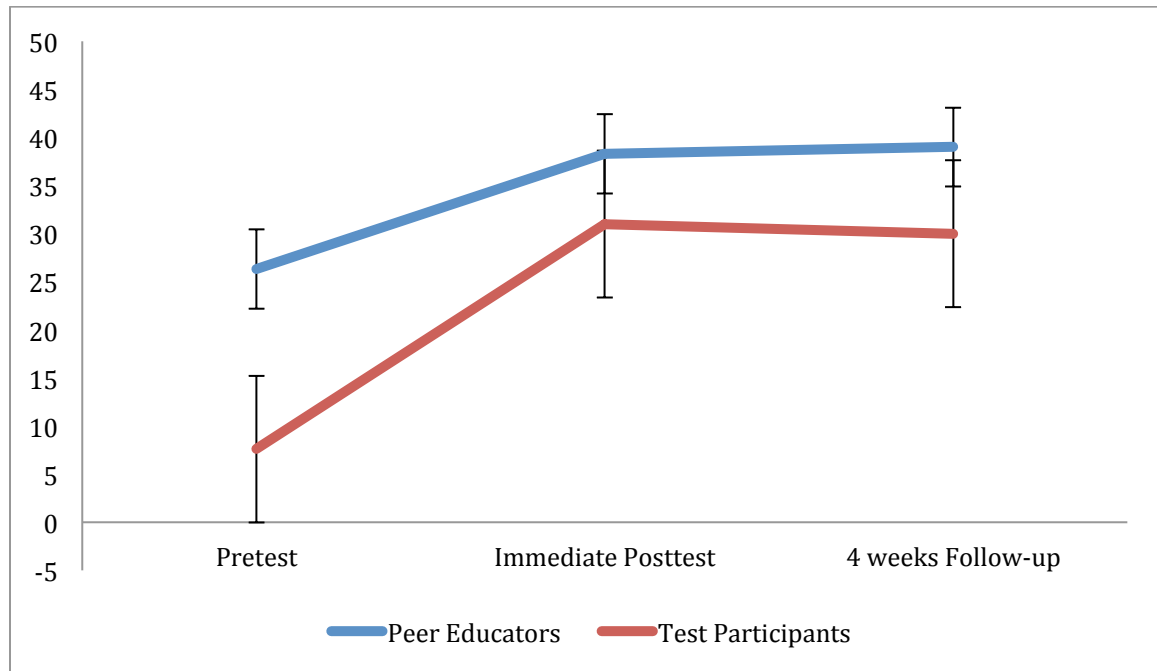


Figure 6. Overall Mean Difference in Knowledge Scores for Types of Contraceptives

Table 6. Mean Knowledge Scores for Peer Educators

Modern Contraceptives	Pretest vs Immediate Posttest (n=4)					Pretest vs Follow-up (n=4)				
	Pretest	Post test	Pretest-Post test	P-value	95% CI	Pretest	Follow Up	Pretest-Follow Up	P-value	95% CI
<i>Out of 6 points</i>										
Pills	5.25	6	0.75	0.22	-0.77,2.27	5.25	6	0.75	0.22	-0.77,2.27
<i>Out of 5 points</i>										
Injectable	3.25	5	1.75	0.01	0.95,2.55	3.25	5	1.75	0.01	0.95,2.55
Male Condom	3.0	4.75	1.75	0.21	-1.78,5.28	3.0	5	2.0	0.16	-1.44,5.44
Implant	3.5	5	1.5	0.30	-2.29,5.29	3.50	5	1.50	0.30	-2.29,5.29
IUD	0	4.75	4.75	0.00	3.95,5.55	0	5	5.0	-	5.0,5.0
Female Condom	3.75	4.75	1.00	0.09	-0.30,2.30	3.75	5	1.25	0.14	-0.75,3.25
<i>Out of 4 points</i>										
Tubal Ligation	3.75	4	0.25	0.39	-0.55,1.05	3.75	4	0.25	0.39	-0.55,1.05
Vasectomy	3.75	4	0.25	0.39	-0.55,1.05	3.75	4	0.25	0.39	-0.55,1.05
<i>Out of 39 points</i>										
All Methods	26.3	38.3	12.0	0.00	7.69,16.3	26.3	39.0	12.8	0.00	8.55,16.9

Table 7. Mean Knowledge Scores for Test Participants

Modern Contraceptives	Pretest vs Immediate Posttest (n=23)					Pretest vs Follow-up (n=19)				
	Pretest	Post test	Pretest-Post test	P-value	95% CI	Pretest	Follow Up	Pretest-Follow Up	P-value	95% CI
<i>Out of 6 points</i>										
Pills	1.61	4.65	3.04	0.00	2.17,3.91	1.79	4.95	3.16	0.00	2.23,4.08
<i>Out of 5 points</i>										
Injectable	1.96	4.35	2.39	0.00	1.44,3.35	1.89	4.11	2.21	0.00	1.11,3.31
Male Condom	1.13	3.83	2.70	0.00	1.83,3.56	0.95	4.42	3.47	0.00	2.59,4.36
Implant	0.61	3.61	3.00	0.00	2.23,3.77	0.74	3.37	2.63	0.00	1.64,3.62
IUD	0.39	3.96	3.57	0.00	2.92,4.21	0.47	3.05	2.58	0.00	1.62,3.53
Female Condom	0.39	3.83	3.43	0.00	2.79,4.08	0.47	3.89	3.42	0.00	2.70,4.15
<i>Out of 4 points</i>										
Tubal Ligation	0.91	3.43	2.52	0.00	1.68,3.37	0.95	3.32	2.37	0.00	1.53,3.21
Vasectomy	0.61	3.35	2.74	0.00	2.02,3.46	0.63	2.89	2.26	0.00	1.39,3.14
<i>Out of 39 points</i>										
All Methods	7.61	31.0	23.4	0.00	19.6,27.2	7.89	30.0	22.1	0.00	17.9,26.3

4. Discussion

4.1 Peer-Informed Educational Intervention

Despite extensive foreign aid specifically targeted at bettering family planning and promoting contraceptive availability,¹ the level of contraceptive uptake in Haiti remains low with high unmet need for family planning.⁸ In this study population, only 12 out of 27 (44.4%) women were current contraceptive users, and nine out of seventeen (52.9%) of the women who expressed no interest in ever conceiving were not using any contraceptive method to prevent pregnancy.

Overall statistical analyses indicated that knowledge had significantly improved after the educational intervention for both peer educators and test participants. The results of this project suggest that a one-time, three-hour peer-based education program using existing social structures (i.e. women's groups) can increase short-term knowledge about contraception, and can be valuable in a population that has minimal access to education and little to no knowledge about contraceptives.

Prior to the intervention, about one third of the women sampled acquired contraceptive knowledge through their health providers. Our study also learned of and acknowledged the work of two other NGOs that cooperate to provide contraceptive information in Fondwa. That information is provided by trained monitrices (i.e. community public health worker) conducting house visits and through a mobile health

clinic. Nonetheless, a large proportion of women in this study lacked general knowledge about contraceptives, including types of modern contraceptives, prior to the educational intervention. Although peer educators appeared to have had higher general knowledge about contraceptives, they fared lower on the knowledge assessment for different types and uses of contraceptives. These results suggest that a re-examination of existing educational efforts may be useful, and necessary to identify the gap in knowledge dissemination.

The observation of a positive change in this project indicates that women who receive peer education improved their understanding and knowledge regarding contraceptives. This finding is consistent with findings in a systematic review that has documented positive outcomes in measures of knowledge from peer led approaches in adolescent sexual health education.¹⁹ Although our findings reported an increase in knowledge scores, common mistakes revealed in this study included difficulties in differentiating between discrete contraceptive methods and also confusion between methods that only provides contraception and those with the dual purpose of also protecting against sexually transmitted disease. Therefore, as gaps in contraceptive knowledge depend on each woman's personal preference and level of sexual activity,³² it may be helpful to hold recurring educational sessions to reemphasize the original material that was shared to promote accurate and comprehensive information about contraceptives and their methods.

The characteristics of peer educators and their essential role in the success of peer education should not be undervalued. According to the Social Learning Theory, peer educators who are recognized as credible and able to influence are an important contributing factor to the outcome of peer education.³³ Although limited literature exists to clarify the characteristics of community members who become effective peer educators,⁵ motivation, dependability among peers,³⁴ and an informed cultural and socioeconomic background³⁵ are important qualities and were the qualities that proved useful in this project. The enthusiasm from the peer educators in conducting workshops on contraceptive knowledge also proved beneficial in creating an open-minded environment in which sensitive information on sexual health could be exchanged freely during training with the research investigators. Furthermore, the unexpected request for a partner system in which another peer educator from the group co-hosts the information session with the female leader provided added support if one peer educator did not cover all the intended material.

The purpose of the four-week follow-up was to measure the effect of peer education and the training provided over time. In line with the positive increase in contraceptive knowledge immediately after the educational intervention, the knowledge scores four weeks after the educational intervention remained significantly higher than before the intervention in both peer educators and test participants. The effectiveness of the educational intervention, suggested by positive short-term knowledge retention,

supports our hypothesis that women who have received peer education continue to have higher knowledge of contraceptive uses at the four-week follow up than before receiving the intervention. This finding is also consistent for peer educators who had received training from the research investigators.

4.2 Contraceptive Preference and Attitudes

In the present study, more than half of the women indicated that both men and women had equal decision making roles and responsibility to use contraceptives. This was contrary to findings by Chakhoutra¹⁴ that determined that reproductive decision-making in Haiti is primarily male driven. One possible explanation for this difference would be that women who were part of the women's group, like in other social support groups, were more empowered and less sensitive to the gender paradigm that might exist in the community.

The proportion of women who preferred a method that lasted for more than two years remained relatively unchanged before and after the intervention. This is consistent with current and previous findings that women believe that they should wait for more than two years between having one child and the next. Similarly, we learned that the main reason for preferring a long-term contraceptive method was not to avert pregnancy-related complications. Many women have expressed that economic hardship to provide for the child and the family was the main deterrent to pregnancy, and unwanted pregnancies are undesirable to family life.¹⁴

An unexpected finding in our study was that among those who preferred a contraceptive method that could last for more than two years, more than two-thirds were either currently using a short-term method, or selected a short-term method if they were contraceptive nonusers. This misalignment between reproductive preference and contraceptive practice is likely because of one of three possible reasons. First, the effectiveness of a contraceptive method is proportionate to the cost and accessibility of contraceptives. Long-term methods (e.g. IUDs, Implants), which are more effective in preventing pregnancy, are more expensive and they require a visit to a health professional. The current impasse due to economic hardship and lack of health facilities observed in Fondwa creates a challenge for women to obtain a contraceptive method that can protect them long term from becoming pregnant. Secondly, we received feedback through informal conversations with many women that they needed a user's contraceptive experience to decide whether to take up a contraceptive method, and to decide which method to choose. The tendency to generalize one user's experience of a particular method, despite being highly subjective and widely variable between persons, was one challenge that we observed in the field among Haitian women. Regardless of the knowledge they had of the different contraceptive methods after the educational intervention, anecdotal experience from past or current contraceptive users appears to be an important determinant for contraceptive uptake. Third, most long-term contraceptive methods, including sterilization options, are more invasive and require

medical procedures. Although a larger proportion of women indicated before the intervention that they do not mind an invasive method, they also showed similar unawareness of the methods that required an invasive procedure. However, after the intervention, the women were more informed of the different types of contraceptive methods and their uses, and indicated lesser preference for contraceptive methods that needed a minor medical procedure.

Shedding new light on previous studies¹³ that have highlighted the importance of fertility in Haitian culture and the fear of infertility that has constituted a barrier during the contraception seeking process, 92.6% of women in the study population showed strong interest in choosing a sterilization method when they no longer want to have any more children. About 40% also stated that they do not perceive their partner, their community, or their religion to be unaccepting of that decision if they choose a permanent contraceptive method. This is consistent with previous reports that the circumstances of economic inability, and the importance of being able to support children's education is a motivating factor to not having any more children.¹⁴

4.3 Study strengths

The main strength of this project is the use of community participation to increase authenticity and the demonstration of how community-based processes could represent all participants involved. The co-learning and co-education relationship between researcher, peer educators and local research members throughout the entire

process is consistent with the methodology of community-based research,³⁶ and provided a more in-depth perspective to how the curriculum could be best fitted for the women. In addition, the relevance of the information session is enhanced after personalization and “cultural buffering”³⁷ by each peer educator.

The existence of other efforts, such as the use of monitrices and provision of medical services through a mobile clinic, related to family planning and contraception were acknowledged throughout the project period. To control for contamination, a survey used before and immediately after the educational intervention was able to directly measure any knowledge difference specifically from the peer education. For the follow-up survey, we were also able to control for contamination as the follow-up period was completed before the services provided by the mobile clinic began. Similarly, the strength of knowledge derived from other sources (e.g. monitrices) can be determined from the pretest.

4.4 Study Limitations and Recommendations

The small sample size is a limitation of this project. Accounting for a community-based approach, the peer educators were responsible for promoting the information session to their peers and the research team was only provided an estimate of how many women would show up. The number of test participants that could be recruited in this project was limited to the number of eligible women who showed up on the day of the information session. As the information session was only scheduled to take place in a

single day, our test participants' sample was limited to only 23 women. Nevertheless, the use of a small sample to generate findings to support the hypothesis aligned with the pilot nature of this project and provided ground for future studies. Another limitation of a small sample size is the narrow characteristics of women who participated in the project. Demographic characteristics in this project were not able to reflect the demographic characteristics of Haitian women reported in previous larger surveys.^{13,14} Further investigation should be done on what drives membership in these women's group, and how to incorporate other lesser known social or community organizations that also serve a large population of women.

The lack of a control group in this project is a major limiting factor to determine the true effect of peer education over time. External factors or environmental influence cannot be eliminated or avoided and suggests possible bias at the four-week follow-up. In addition, the project was designed to only measure differences in knowledge and attitudes, and lacked measures that assessed improved practice and reduced discrepancy between reproductive preference and contraceptive behavior. Future studies will be needed to investigate the impact of education by including measures for sexual practices and behavioral outcomes, and comparing the effects of intervention with a control arm.

The presence of religions has been found in several surveys to be a barrier to contraceptive use in many countries,³⁸⁻⁴⁰ particularly surrounding the Islam faith^{41,42} and

Catholicism.⁴³ Although previous surveys in Haiti have suggested that religion is not considered to be a barrier to contraceptive uptake,^{13,14} we were not able to draw an association between religion and acceptance of contraceptive use in this study due to the absence of religious characteristics inquiry in the surveys. This would be important in future studies as Fondwa has a large Catholic following.

Last, the session(s) provided to train the peer educators and inform the women's group was not sufficient to cover all content regarding contraceptives. Due to the lack of knowledge surrounding the different types of modern contraception and their uses, the initial content of the curriculum had to be modified and reduced to accommodate the peer educators and test participants. Although a one-time session for the peer education would be more realistic in a setting that requires lengthy travel to the meeting venue and irregular work schedule, further research can consider incorporating other platforms such as the use of mass media or print materials, to introduce new information about contraceptives as well as emphasize the original teaching materials. Such recommendations are proposed to ensure that information shared within the community can be up to date and accurate.

4.5 Conclusion

This pilot project in Haiti has highlighted the tremendous potential of peer education in increasing contraceptive knowledge and has provided a formal measurement of the success of peer education within a resource-poor setting.

Nevertheless, increased knowledge is only the first step in addressing contraceptive nonuse because education alone may not improve practices or change contraceptive behavior. In addition to other reasons for nonuse of contraceptives, researchers noted a tendency for women to rely on their peer's experience with specific contraceptive methods in making their own decisions. Future design of peer education programs may benefit from increasing the focus on the sharing of women's contraceptive experiences. How to effectively use anecdotal experiences would require careful study. Obviously, the success of future work in this area relies on an improved socioeconomic situation in Haiti and on the general well being of all Haitians.

Appendix A

Pretest

1. How old are you this year? _____
2. What is your highest educational level?
 - ☐ Never went to school
 - ☐ Elementary (Grade 7-11)
 - ☐ Middle (Grade 3-6)
 - ☐ High School (Grade 0-2)
 - ☐ Post-high school
3. What is your employment status? Do you have work
 - ☐ Not employed
 - ☐ Job with salary
 - ☐ Unpaid work
 - ☐ Others, please specify _____
4. Do you currently live with a male partner?
 - ☐ Yes
 - ☐ No
5. Have you had sex before?
 - ☐ Yes
 - ☐ No (skip to Question 8)
6. At what age did you first had sex?

7. Do you have children of your own?
 - ☐ Yes, how many and how old are they?

 - ☐ Did you plan when to have any of your children?
 - ☐ No
8. Do you want to have (more) children?
 - ☐ Yes, how many in total?

 - ☐ No
9. Who decides how many children you should have?
 - ☐ Myself
 - ☐ My partner
 - ☐ Family members (e.g. Mother, Grandmother, Aunty etc.)
 - ☐ My religion
 - ☐ My community
 - ☐ Others, please specify _____
10. Do you know what contraceptive methods are?
 - ☐ Yes
 - Who told you about contraceptive methods?
 - △ Male Partner
 - △ Family Member
 - △ Friend or Neighbor
 - △ Pastor or Religious Leader
 - △ Health Provider
 - △ Others, please specify: _____
 - Do you think that knowing about family planning is important?
 - △ Yes
 - △ No
 - ☐ No (skip to Question 19)
11. Do you think using a contraceptive method can help you decide if you want a child and when you want to have a child?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
12. Do you think using a contraceptive method can help to prevent you from having any unwanted/unintended pregnancies?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know

13. Do you think starting a contraceptive method now can affect your chances of getting pregnant later?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
14. If you are using a non-permanent contraceptive method and you are ready to have a child now, do you agree that you can stop using the method anytime?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
15. Can a woman without children use contraceptive methods?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
16. Choose one, if a contraceptive method is not suitable for you, what can you do:
 - ☐ Stop using and not look for another contraceptive method
 - ☐ Stop using and look for another contraceptive method that is suitable for me
 - ☐ Continue using the contraceptive method
 - ☐ Don't know
17. Do you know where to get contraceptive methods?
 - ☐ Yes
 - ☐ No
18. Are contraceptive methods convenient/easy to get?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
19. I am going to list a few modern contraceptive methods, tell me if you know about them.
 - **Pills**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use it? Yes/No
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ How often do you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Injections/ Depo Provera (Shot for Birth Control)**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ How long does it protect you from being pregnant? _____
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Male Condoms**
 - ❖ Do you know about? _____Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use it? Yes/No
 - ❖ How often should you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent

- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Norplant or other implants**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ Does it protect you being pregnant for a long time (few years) or short time (few months)? Long/short
- ❖ Do you think _____are for men or women? Men/Women
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **IUD/Intrauterine Device/Copper T (planning method by putting method inside uterus)**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ How long does it protect you from being pregnant? _____
- ❖ Do you think _____are for men or women? Men/Women
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Tubal ligation (female permanent sterilization)**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ Can you still become pregnant if you use it? Yes/No
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- ❖ Do you know about? _____ Yes/No (*proceed only if they know*)
- ❖ Can you still become pregnant if you use it? Yes/No
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Female Condom**
- ❖ Do you know about? _____ Yes/No (*proceed only if they know*)
- ❖ Do you know how to use _____? Yes/No
- ❖ How often should you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- 20. Do you know of any side effects from using any modern contraceptive method?
 - ☐ Yes, please specify _____
 - ☐ No
- 21. How long do you think you should wait between having one child and the next?
 - ☐ Less than 3 months
 - ☐ 3-6 months
 - ☐ 6-12 months
 - ☐ 12 month to 2 years
 - ☐ More than 2 years
 - ☐ Don't know/Never thought about it
- 22. Can you become pregnant if you had sex without protection?

- ☐ Yes
☐ No
23. Do you think that unintended or unwanted pregnancies are undesirable consequences to family life?
- ☐ Yes
☐ No
24. Who do you think should use contraceptive method?
- ☐ Women
☐ Men
☐ Both
25. Who do you think should decide whether to use contraceptive method?
- ☐ Myself
☐ My partner
☐ Myself and my partner
☐ Family member
☐ Others _____
☐ Don't know/Never thought about it
26. Does your community or religion allow contraceptive methods?
- ☐ Only community
☐ Only religion
☐ Both allow
☐ Both don't allow
☐ Don't know
27. When choosing a contraceptive method, will you prefer short (i.e. 1-3 months) or long-term (more than 2 years) method?
- ☐ Short
☐ Long
☐ Neither
28. Would you mind using a family planning method,
- ❖ If the method was not hidden from your partner?
- △ Yes
- △ No
- ❖ If the method required a procedure by the doctor to put something inside the body?
- △ Yes
△ No
29. When you no longer want to have children, would you consider a family planning method that will make you no longer have any more children?
- ☐ Yes
☐ No
30. Would your _____ accept that you use a family planning method that will make you no longer have any more children?
- Partner
☐ Yes
☐ No
☐ Don't know
 ▪ Community
☐ Yes
☐ No
☐ Don't know
 ▪ Religion
☐ Yes
☐ No
☐ Don't know
31. Do you know of any traditional contraceptive method?
- ☐ Yes, which ones? _____
☐ No (skip to Question 34)
32. Do you think traditional contraceptive methods are effective in preventing pregnancies?
- ☐ Yes
☐ No (skip to Question 34)
33. Will you continue using traditional contraceptive method if they are proven to be ineffective/cause pregnancies?
- ☐ Yes
☐ No

34. Did you use any form of contraceptive method before?
- ☐ Yes
 - ☐ No (Skip to Question 36)
35. Are you currently still using this contraceptive method?
- ☐ Yes
- a. Which method are you using?
 - ☐ Male Condom
 - ☐ Female Condom
 - ☐ Pills
 - ☐ Injectable
 - ☐ IUD
 - ☐ Implant
 - ☐ Tubal Ligation
 - ☐ Vasectomy
 - ☐ Traditional methods
 - b. How long have you been using this contraceptive method?
 - ☐ Less than 3 months
 - ☐ 3-6 months
 - ☐ 6-12 months
 - ☐ 12 month to 2 years
 - ☐ More than 2 years
 - c. Did you get the contraceptive method on your own?
 - ☐ Yes
 - ☐ No
 - d. Did anyone tell you if that contraceptive method would be suitable for you/ okay for your body?
 - ☐ Yes
 - ☐ No
 - e. Did anyone discussed with you of any possible side effects for that contraceptive method?
 - ☐ Yes
 - ☐ No
 - f. Did you experience any side effects?
 - ☐ Yes
 - ☐ What was the side effect?
 - ☐ Feeling sick
 - ☐ Bleeding
 - ☐ Headache
 - ☐ Others, please specify _____
 - ☐ Were you ever told about using another method that may be more suitable?
 - ☐ Yes
 - ☐ No
- ☐ No
- g. Are you satisfied with the contraceptive method?
 - ☐ Yes
 - ☐ No
- i. Why did you stop using this method?
- ☐ Wanted children again
 - ☐ Experience side effect
 - ☐ Partner opposition
 - ☐ Lack of knowledge
 - ☐ Others, please specify _____
- (ONLY IF ANSWERED NO IN QUESTION 34 AND 35)
36. Would you ever use a modern contraceptive method (again)?
- ☐ Yes
 - i. If yes, which method would you prefer to use?
 1. Pill
 2. Injection
 3. Female condom
 4. Tubal ligation
 5. Implants
 6. Male Condom
 7. Vasectomy
 8. IUD
 - ☐ No
 - ii. If no, what is the main reason you decided not to use modern contraceptive method? _____

Immediate Posttest

1. Do you know what contraceptive methods are?
 - Yes
 - i. Do you think that knowing about family planning is important?
 - Yes
 - No
 - No (skip to Question 8)
2. Do you think using a contraceptive method can help you decide if you want a child and when you want to have a child?
 - Yes
 - No
 - Don't know
3. Do you think using a contraceptive method can help to prevent you from having any unwanted/unintended pregnancies?
 - Yes
 - No
 - Don't know
4. Do you think starting a contraceptive method now can affect your chances of getting pregnant later?
 - Yes
 - No
 - Don't know
5. If you are using a non-permanent contraceptive method and you are ready to have a child now, do you agree that you can stop using the method anytime?
 - Yes
 - No
 - Don't know
6. Can a woman without children use contraceptive methods?
 - Yes
 - No
7. Choose one, if a contraceptive method is not suitable for you, what can you do:
 - Stop using and not look for another contraceptive method
 - Stop using and look for another contraceptive method that is suitable for me
 - Continue using the contraceptive method
 - Don't know
8. I am going to list a few modern contraceptive methods, tell me if you know about them.
 - **Pills**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use it? Yes/No
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ How often do you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Injections/ Depo Provera (Shot for Birth Control)**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ How long does it protect you from being pregnant? _____
 - ❖ Do you think _____are for men or women? Men/Women

- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Male Condoms**
- ❖ Do you know about? _____ Yes/No (*proceed only if they know*)
- ❖ Do you know how to use it? Yes/No
- ❖ How often should you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Norplant or other implants**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ Does it protect you being pregnant for a long time (few years) or short time (few months)? Long/short
- ❖ Do you think _____ are for men or women? Men/Women
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **IUD/Intrauterine Device/Copper T (planning method by putting method inside uterus)**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ How long does it protect you from being pregnant? _____
 - ❖ Do you think _____ are for men or women? Men/Women
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Tubal ligation (female permanent sterilization)**
- ❖ Do you know about it? Yes/No (*proceed only if they know*)
- ❖ Can you still become pregnant if you use it? Yes/No
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Vasectomy (male permanent sterilization)**
- ❖ Do you know about? _____ Yes/No (*proceed only if they know*)
- ❖ Can you still become pregnant if you use it? Yes/No
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- **Female Condom**
- ❖ Do you know about? _____ Yes/No (*proceed only if they know*)
- ❖ Do you know how to use _____? Yes/No
- ❖ How often should you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
- ❖ Does it protect you from sexually transmitted disease? Yes/No
- 9. Do you know of any side effects from using any modern contraceptive method?
 - Yes, please specify _____
 - No

10. How long do you think you should wait between having one child and the next?
 - ☐ Less than 3 months
 - ☐ 3-6 months
 - ☐ 6-12 months
 - ☐ 12 month to 2 years
 - ☐ More than 2 years
 - ☐ Don't know/Never thought about it
11. Can you become pregnant if you had sex without protection?
 - ☐ Yes
 - ☐ No
12. When choosing a contraceptive method, will you prefer short (i.e.1-3 months) or long-term (more than 2 years) method?
 - ☐ Short
 - ☐ Long
 - ☐ Neither
13. Would you mind using a family planning method,
 - ☐ If the method was not hidden from your partner?
 - ☐ Yes
 - ☐ No
 - ☐ If the method required a procedure by the doctor to put something inside the body?
 - ☐ Yes
 - ☐ No
14. When you no longer want to have children, would you consider a family planning method that will make you no longer have any more children?
 - ☐ Yes
 - ☐ No
15. Do you think traditional contraceptive methods are effective in preventing pregnancies?
 - ☐ Yes
 - ☐ No (skip to Question 17)
16. Will you continue using traditional contraceptive method if they are proven to be ineffective/cause pregnancies?
 - ☐ Yes
 - ☐ No
17. Are you currently using any modern contraceptive method?
 - ☐ Yes
 - ☐ Which method are you using?
 - ☐ Male Condom
 - ☐ Female Condom
 - ☐ Pills
 - ☐ Injectable
 - ☐ IUD
 - ☐ Implant
 - ☐ Tubal Ligation
 - ☐ Vasectomy
 - ☐ No
 - Would you ever use a modern contraceptive method?
 - ☐ Yes
 - Which method would you prefer to use?
 - ☐ Male Condom
 - ☐ Female Condom
 - ☐ Pills
 - ☐ Injectable
 - ☐ IUD
 - ☐ Implant
 - ☐ Tubal Ligation
 - ☐ Vasectomy
 - ☐ No
 - i. If no, what is the main reason you decided not to use modern contraceptive method?

Follow Up

1. Do you know what contraceptive methods are?

- ☐ Yes
- i. Do you think that knowing about family planning is important?
- ☐ Yes
- ☐ No
- ☐ No (skip to Question 8)
2. Do you think using a contraceptive method can help you decide if you want a child and when you want to have a child?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
 3. Do you think using a contraceptive method can help to prevent you from having any unwanted/unintended pregnancies?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
 4. Do you think starting a contraceptive method now can affect your chances of getting pregnant later?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
 5. If you are using a non-permanent contraceptive method and you are ready to have a child now, do you agree that you can stop using the method anytime?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
 6. Can a woman without children use contraceptive methods?
 - ☐ Yes
 - ☐ No
 - ☐ Don't know
 7. Choose one, if a contraceptive method is not suitable for you, what can you do:
 - ☐ Stop using and not look for another contraceptive method
 - ☐ Stop using and look for another contraceptive method that is suitable for me
 - ☐ Continue using the contraceptive method
 - ☐ Don't know
 8. I am going to list a few modern contraceptive methods, tell me if you know about them.
 - **Pills**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use it? Yes/No
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ How often do you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Injections/ Depo Provera (Shot for Birth Control)**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ How long does it protect you from being pregnant? _____
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Male Condoms**
 - ❖ Do you know about? _____Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use it? Yes/No
 - ❖ How often should you use it? Choose 1: Every time you have sex/take it every

- day/take it every 3 months/take it once for more than 2 years/permanent
- ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Norplant or other implants**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ Does it protect you being pregnant for a long time (few years) or short time (few months)? Long/short
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **IUD/Intrauterine Device/Copper T (planning method by putting method inside uterus)**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ How long does it protect you from being pregnant? _____
 - ❖ Do you think _____are for men or women? Men/Women
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Tubal ligation (female permanent sterilization)**
 - ❖ Do you know about it? Yes/No (*proceed only if they know*)
 - ❖ Can you still become pregnant if you use it? Yes/No
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Vasectomy (male permanent sterilization)**
 - ❖ Do you know about? _____Yes/No (*proceed only if they know*)
 - ❖ Can you still become pregnant if you use it? Yes/No
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
 - **Female Condom**
 - ❖ Do you know about? _____Yes/No (*proceed only if they know*)
 - ❖ Do you know how to use _____? Yes/No
 - ❖ How often should you use it? Choose 1: Every time you have sex/take it every day/take it every 3 months/take it once for more than 2 years/permanent
 - ❖ Do you know if it can be seen by someone else when you use it? Yes/No
 - ❖ Does it protect you from sexually transmitted disease? Yes/No
9. How long do you think you should wait between having one child and the next?
- Less than 3 months
 - 3-6 months
 - 6-12 months
 - 12 month to 18 months
 - More than 18 months
 - Don't know/Never thought about it
10. Can you become pregnant if you had sex without protection?
- Yes
 - No

11. Are you currently using any modern contraceptive method?

☐ Yes

• Which method are you using?

- Male Condom
- Female Condom
- Pills
- Injectable
- IUD
- Implant
- Tubal Ligation
- Vasectomy

• Will you want to try another method?

- Yes, which one? ____
- No

☐ No

• Would you ever use a modern contraceptive method?

☐ Yes

i. Which method would you prefer to use?

- △ Male Condom
- △ Female Condom
- △ Pills
- △ Injectable
- △ IUD
- △ Implant
- △ Tubal Ligation
- △ Vasectomy

☐ No

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