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La Situación Económica: Social Determinants of Contraceptive Use in Rural Honduras

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Abstract

Contraceptive use is an important determinant of unintended pregnancy, but little is known about the social and structural factors that determine women's contraceptive use in rural Honduras. In this study, we aim to characterize the individual and social determinants of contraceptive use among women in rural Honduras. In 2011 and 2012, we conducted 14 interviews and two focus groups with women 18 years and older. In our analysis, we created a family planning narrative for each participant and coded transcripts around key emergent themes related to these determinants. We found that social determinants – including poverty, gender dynamics, and availability of family planning methods – had a strong influence on contraceptive use among women in our sample. Study participants stated that they were faced with a difficult economic situation compounded by rising prices of basic goods and diminishing job opportunities. Paradoxically, at the same time that the economic situation led women to seek contraception, it also contributed to the structural barriers that limited their ability to obtain their method of choice and maintain continuous contraceptive use. Our findings suggest the need for multi-level efforts to create an enabling and sustainable environment for family planning among women in rural Honduras.

Keywords

Contraception; reproductive health; qualitative methods; Honduras; social determinants

Introduction

Unintended pregnancy, defined as a pregnancy that is either unwanted or mistimed, is a serious global health issue related to a host of adverse health outcomes – including maternal and infant/child morbidity and mortality – as well as negative social consequences, such as

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school drop-out (Santelli et al., 2003; Singh, Sedgh, & Hussain, 2010). In 2012, 42% of pregnancies in Honduras were either unwanted or mistimed (Demographic and Health Surveys, 2012). Contraceptive use is an important determinant of unintended pregnancy, and helps to space births, lower infant mortality risk, and reduce unsafe abortions (Tsui, McDonald-Mosley, & Burke, 2010). In the 2012 Honduras Demographic and Health Survey (DHS), 64% of all married women aged 15-49 reported using a modern method of contraception (Demographic and Health Surveys, 2012). Female sterilization is the most commonly-used method (22%) among married women in Honduras, followed by injectable contraceptives (18%), oral contraceptive pills (12%), and the intrauterine device (7%) (Demographic and Health Surveys, 2012). However, an estimated 11% of married Honduran women aged 15-49 who are fecund, sexually active and report not wanting more children are not using any contraception (Demographic and Health Surveys, 2012). Rates of unmet contraceptive need are highest among rural women and poor women (Demographic and Health Surveys, 2012; United Nations, 2011).

Although there have been major improvements in health status in recent decades in Latin America, these improvements have not been equally distributed across socioeconomic groups. Rather, populations with higher socioeconomic status (SES) have experienced much greater rates of improvement compared to lower SES groups (Casas, Dachs, & Bambas, 2001). Within the field of public health, there has been a growing emphasis on understanding the causes of health inequities. One explanation is the influence of social determinants of health, or “the conditions in which people are born, grow, live, work and age,” including the health system (World Health Organization, 2013b, p. 1). In contrast to individual-level determinants, social determinants of health are shaped by the distribution of money, power, and resources at the community, national, and international levels (Link & Phelan, 1995; World Health Organization, 2013b). Theorists have argued that the field of public health has placed too much emphasis on individual-level risk factors that are proximal causes of morbidity and mortality rather than what Marmot and Wilkinson (2009) refer to as the *causes of causes*, or the social conditions that shape health.

An analysis of the causes of causes requires a critical look at the current political, economic, and social contexts in Honduras. Although Honduras has made economic and developmental progress over the past fifty years, the public health sector has been in a state in disarray for the past four to five years. Several phenomena in the past decade have contributed to the deterioration of the health sector, including a rise in societal insecurity and violence, political instability, and a recent economic downturn. These three forces overlap and interact, and as such, their negative effects are often compounded.

Crime in Honduras has risen dramatically in the past decade. The country currently has the highest homicide rate in the world (United Nations Office on Drugs and Crime, 2011). The increase in violence can be attributed to drug trafficking, gang violence, weak law enforcement, and legal impunity; police only investigate 20% of murders (Rubí, 2013). Escalating violence and drug trafficking in Honduras diverts funding that could be used to improve the health care sector, in favor of government spending on security and police forces (Ramos, 2013). In addition to escalating violence, the country has been afflicted by political tumult in recent years, marked by the 2009 political coup in which the army ousted

former president Manuel Zelaya from power. Honduras ranks 133 out of 174 countries on Transparency International's corruption perception index, a higher ranking than all other Latin American and Caribbean countries besides Venezuela and Haiti (Transparency International, 2012). This corruption and political tumult limits the government's ability to deliver services, including healthcare, to the public.

Honduras is the second-poorest country in the Western hemisphere, after Haiti, with 65% of its population living in poverty (The World Bank, 2013). Large landholders control most of the arable land in Honduras; limited access to agricultural land threatens economic well-being of many rural Hondurans (USAID, 2011). Additionally, the struggling global economy and its impact on remittances have affected the national economy in recent years. Many Hondurans rely on remittances from family members who have migrated to the US and other countries; \$2.6 billion in remittances entered Honduras in 2010, representing 19% of the gross national income (World Bank, 2011). Since 2008, however, the Great Recession in the US has eliminated jobs for immigrants in fields like construction (Peck, 2013). As unemployment rises in the US, likewise economic opportunities for immigrants – and remittances back to their home countries – diminish. Indeed, remittances in Honduras rose each year from 1994 to 2008, but then declined in both 2009 and 2010 (Migration Policy Institute, 2011). Additionally, the Honduran economy is still reeling from the financial impact of the 2009 political coup. International aid to Honduras was blocked during the six months between Zelaya's ouster and the current president's election, resulting in an estimated loss of \$320 million in grants and credit ("The cost of a coup," 2011). Between 2008 and 2010, the public debt rose from 19.8% to 26.3% of the gross domestic product (GDP) ("The cost of a coup," 2011). Additional foreign investment could help alleviate economic problems in Honduras, but violence, corruption, and crime in Honduras are driving away foreign investors (Ramos, 2013; Schwab, 2012). The financial repercussions of violence in Honduras should not be underestimated; Honduras has the third-highest business costs of crime and violence in the world (Schwab, 2012). Facing public debt and diminishing remittances, the government has fewer resources to spend on the health sector; only 9% of the GDP is spent on health, as compared to a regional average of 14% in the Americas (World Health Organization, 2013a).

In sum, violence and societal insecurity, political instability, and the struggling economy have worsened the public health sector in Honduras. These factors merit further exploration as they may influence the health sector as well as individual-level contraceptive behavior.

Evidence from low- and middle-income countries, including Honduras, underscores the influence of social determinants on contraceptive use disparities, particularly in rural areas (Price & Asgary, 2011). For instance, research has shown that inequitable gender norms have a strong influence on sexual and reproductive health outcomes (Barker, Ricardo, & Nascimento, 2007). A 2010 randomized trial in Zambia found that women who received private family planning counseling without male partners were 23% more likely to visit a family planning nurse and 38% more likely to ask for a concealable contraceptive (e.g., injectable contraceptives), compared to those who received counseling in conjunction with their partners. These changes were associated with a 57% reduction in unwanted births among women receiving private counseling (Ashraf, Field, & Lee, 2010). This study

highlights the potential influence of spousal discordance and gender norms on contraceptive use and fertility outcomes. In Honduras, the mean ideal number of children among men is 3.4, compared with 2.8 among women (Demographic and Health Surveys, 2012). Despite disparate fertility preferences among men and women, a nationally-representative survey in Honduras found that 25% of women and 28% of men believed that men alone should make decisions regarding family size or family planning use (Speizer, Whittle, & Carter, 2005). In addition to inequitable gender norms, other social determinants including the economic situation of a country and the availability and affordability of contraceptive methods influence contraceptive use, especially in rural areas (Ross & Hardee, 2012; Wang, Wang, Pullum, & Ametepi, 2012). Price and Asgary (2011) found that women in rural Honduras reported significant barriers to reproductive health services, including limited medical staff, long distances to medical facilities, and low quality of care. These studies indicate that social determinants can impact reproductive health, but additional qualitative research can answer the question of *how* these social determinants influence contraceptive use, given the current tumultuous political and economic situation in rural Honduras.

Using a social determinants perspective, we seek to situate individual determinants of contraceptive use into the broader socio-political context of Honduras. Through our analysis of qualitative interviews and focus groups, we aim to (1) describe patterns of contraceptive use, and (2) understand the individual and social determinants of contraceptive use among women in rural Honduras. In line with the World Health Organization's definition, we consider both social factors (e.g., gender norms), as well as structural factors (e.g., poverty, access to health care), to be social determinants of health.

Methods

Participants

Participants were women 18 years and older living in a rural area of the Choluteca Department in southern Honduras who attended a women's health clinic in 2011 or 2012. We purposively sampled interview participants to obtain diversity in terms of family size, marital status, experiences with contraceptive use, and age (Table 1). In addition, we conducted two focus groups with the purpose of encouraging interaction and discussion of social norms related to family planning.

Procedures

We collected data in in summer 2011 (seven interviews) and summer 2012 (14 interviews and two focus groups). Four Spanish-speaking American women trained in qualitative data collection conducted all interviews and focus groups in Spanish. The second author conducted all of the 2011 interviews using a semi-structured interview guide to collect information regarding a range of health topics, including family planning. A more detailed description of this methodology is published elsewhere (Author, 2013). Building on the 2011 interviews, the first author conducted seven interviews and both focus groups in 2012, again using semi-structured interview and focus group guides to facilitate discussion about fertility preferences, experiences using family planning, personal attitudes and social norms, barriers, and male attitudes. Two additional female interviewers collected the remaining

seven interviews in 2012. Interviews and focus groups were audio-recorded and conducted in Spanish. Fluent Spanish-speakers transcribed audio-files verbatim and verified them for accuracy. The University of North Carolina Institutional Review Board approved this study.

Analysis

Maxwell and Miller (2008) Maxwell and Miller's (2008) theory of qualitative analysis, highlighting a key distinction between relationships based on similarities and those based on contiguity, or the connections between things, informed our approach to analyzing, interpreting, and presenting the data. We used both categorizing (i.e., coding) and connecting (i.e., narrative development) techniques in the interpretation of results and presentation of findings (Maxwell & Miller, 2008). While reviewing transcripts and audio-files, we created memos to document emerging themes and ideas for potential codes; these memos informed the first iteration of the codebook. Then, we coded all transcripts using ATLAS.ti and wrote memos with ideas for new codes, after which we revised the codebook and coded transcripts a second time. Finally, we reviewed code reports for the themes most relevant to the research questions, focusing on patterns of contraceptive use, norms and attitudes, and barriers. During the coding process, we also created family planning narratives for each participant, describing each woman's personal experiences with contraceptive use, attitudes toward family planning, and opinions about male attitudes toward family planning. This strategy helped with the interpretation and analysis of code reports and quotations and provided a better contextual understanding of the barriers that women discussed. The case presented in the following section was derived from one of the narratives, and is intended portray one woman's experience with some of the major themes that emerged from the analysis in a contextualized manner.

Results

We present our findings in four parts. First, we characterize patterns of family planning use. Then, we discuss women's attitudes toward family planning and their fertility preferences. Next, we describe individual and social-level barriers to contraceptive use including side effects, common misperceptions, women's perceptions of men's attitudes, and structural obstacles. Finally, we conclude with a case study that describes one participant's trajectory of contraceptive use in order to provide a narrative illustration of several key findings that are discussed in this section, highlighting the influence of social determinants. We use pseudonyms in order to protect participants' anonymity.

Patterns of Family Planning Use

The majority of women interviewed were current or past users of family planning methods; 25 of the 29 participants reported ever having used a family planning method (Table 1). Sixteen of the 29 women reported having used more than one method. Switching between oral contraceptive pills (OCPs) and injectable contraceptives (referred to as "the injectable" or "injectables" in this paper) was especially common. OCPs and injectables were the most frequently-used methods, followed by female sterilization, the rhythm method, and the intrauterine device (IUD). Methods requiring male participation, specifically condoms and male sterilization, were not frequently mentioned by participants.

Women's family planning attitudes and fertility preferences

Most women expressed positive attitudes toward family planning, explaining that they liked that contraception helped to both space births and prevent unwanted pregnancies. When asked what life is like for mothers in their communities, participants often said that life is much more difficult for mothers with many children compared to those with few children. This perception translated to women's personal preferences for family size, as the majority of women of child-bearing age reported that they did not wish to have any more children.

The preference for smaller families was primarily driven by the grim economic state facing the region. When asked why they preferred smaller families, almost every participant said that large families suffer because of *la situación económica* (the economic situation), a term that women often shortened to simply *la situación*. The labor force in southern Honduras revolves around agriculture, and most families make a living by farming crops such as melons, corn, and okra. Participants described that regional poverty is a product of both rising prices and diminishing job opportunities. Rosa, a well-spoken and thoughtful 24-year-old married woman with one daughter, described the challenges of finding work in the area during an interview.

Interviewer (I): Can you tell me more about why it's hard to find work?

Rosa: Mmm, because there are not many businesses. Even in the city there aren't many businesses. Here, there aren't opportunities to, to work. Only within the home. So there isn't, like I was telling you, you have to go far away to work. Here, you can't find work, and if there is work, you don't earn much money. So it's really hard.

In this quotation, Rosa introduced the idea of migration in order to find work. Several women told stories of friends, acquaintances, and family members who traveled to urban areas within Honduras or to the United States in an attempt to find reliable employment. Rosa and her husband make a living by traveling around the area on motorcycle selling clothes, lotion, shoes, and other items. At the time of the interview, business had not been good and Rosa and her husband often grant payment extensions to people who cannot afford to pay for items at the time of purchase. *La situación* directly affected women's fertility preferences and contraceptive-related decisions. For example, Rosa explained how her decision about having more children is influenced, and confined, by rising prices.

Yes, because everything is rising in price. Everything. Groceries, clothes, shoes, everything...if you have three children, you have to buy them three pairs of shoes at the beginning of the school year and if you don't have enough money, then you only buy one pair. And everything is expensive. And prices go up, and they don't go down. They don't go back down.

Many participants described the difficult process of allocating scarce resources among children. One woman could only afford to send one of her children to high school, while her other children began working in the fields after completing sixth grade. In an interview, Maribel, a 44-year-old single mother with seven children, invoked a local adage that captures the trade-offs facing mothers with many children, saying "Everything has to be shared between your children. As they say here, 'if you wear shoes, you can't wear socks.'"

Maribel has struggled to take care of her seven children by herself, and she supported the use of family planning primarily because she could not financially support more children. Her perspective mirrored that of the majority of women interviewed: family planning is first and foremost a way to avoid current and future suffering and economic hardship. Women's decisions to use family planning were primarily driven by pragmatism in response to the dire economic situation in the region.

Barriers to family planning use

Although most participants were supportive of family planning, they described a range of individual and social barriers that limit women's ability to maintain continuous contraceptive use in their communities.

Side effects

Nearly half of participants had personally experienced negative side effects including weight gain, weight loss, headaches, nausea, and even facial paralysis. Some women said that they did not feel entirely healthy using methods such as OCPs and injectables, describing headaches, dizziness, nausea, and general malaise. In some cases, women found side effects to be intolerable and chose to either switch methods or discontinue use altogether. In other cases, women continued using contraception in spite of the associated side effects.

Misperceptions

Misperceptions about the health effects of family planning were common and created barriers to consistent contraceptive use. One such belief was that the IUD can become embedded in a woman's body after a long time. Similarly, some believed that OCPs can become stuck inside women's bodies, creating tumors and cancer. Several participants explained a commonly-held belief that contraceptives, especially OCPs, "poison your blood," which is believed to cause illness and infertility. Luz, a 41-year-old married mother of five children, felt very strongly about the negative health effects of family planning, even though she was using the injectable. In her opinion, the poisoning of blood is closely tied to infertility, as she explained in a focus group.

For me, family planning is, sometimes you use family planning to not have many children, because you can't take care of them. But family planning is bad because you're poisoning your body, your blood. And if you had all of your children, like her [points to María, 48 years old], you see that she looks really young and she had her 13 children. She didn't use family planning. And now, us younger women, since we've been using family planning, we feel all *guarapas* ["sick"], as we say. Our legs hurt, everything hurts. And also a lot of family planning will sterilize the person... for example, a young woman who didn't want to have kids and she had been using family planning for a while, but later she had to undergo treatment to be able to have a child.

Luz had some of the most negative attitudes toward family planning of anyone in the sample, yet she had used family planning for over a decade. Several times during the focus group, she talked about how *la situación* influenced her decision to use contraception; in her words, "*la situación* is what makes one use family planning."

Men's attitudes toward family planning

When asked about barriers to family planning, participants frequently mentioned men's opposition to contraceptive use. Nearly all women acknowledged that, regardless of their own partner's opinion, some men in the community oppose family planning. Women described that men often operate under the guiding principle that they should have the number of children that God gives them. Linda, a married woman in her 30s with three children, described gender-discordant fertility preferences in an interview:

One problem that I see more than anything here in the communities is that the men don't want their wives to use family planning... They want to have the children that God gives them. But on the other hand, the women, they don't want to have so many children.

When asked how women respond when their partners disapprove of family planning, several participants explained that clandestine contraceptive use is fairly commonplace. After five years without having any children, Maribel's second husband questioned her about why she had not gotten pregnant. When she confessed that she had secretly been using an IUD, he ordered her to have the IUD removed. After removing the IUD, Maribel had two more children, in addition to the five she had with her first husband. Her second husband abandoned her soon after the birth of her last child. Maribel said that if she had not confessed to her second husband that she had covertly been using contraceptives, she would not have had her last two children. In a focus group, participants began weighing the pros and cons of hiding contraceptive use from male partners. Flor, a feisty 45-year-old single mother of five, told the group about her goal to convince one of her daughters to secretly use family planning.

Flor: I really want my daughter to use family planning secretly, based on my experience. Yes. Secretly. Because [my ex-partner] wanted to leave me with another five children, and I already had five. So with five more, that would have been ten! And then what would happen if he leaves for the United States?

Camila: But it's good if the man is in favor of family planning.

Flor: No, ma'am!

Camila: Yes, if she does it secretly, he could say that she has another man, right?

In this exchange, Camila, a 61-year-old widow who had remained quiet during most of the discussion, interjected in disagreement. She argued that Flor's daughter's boyfriend might assume that she has been unfaithful if he discovers that she has been using contraceptives without telling him. Camila's warning to Flor highlights a potential unintended consequence of covert contraceptive use. Men may accuse female partners of being unfaithful upon discovering that their partners have been secretly using family planning. Men's accusations of infidelity arose in other contexts as well. Women reported that some men disapprove of female sterilization because of the belief that sterilization procedures can increase a woman's sex drive, raising suspicions of infidelity among men.

Although women stated that other men in the community were opposed to family planning and were insensitive to women's needs and preferences, they tended to describe their own

partners as being understanding and supportive of family planning. There are several potential explanations for the discrepancy between women's perceptions of male attitudes and their own personal experiences with men. First, the selection of study participants, who were seeking reproductive health services, may have resulted in a sample of women with partners who were more supportive of family planning than most men living in rural Honduras. Second, women's personal experiences with supportive partners might reflect a shift in social norms in which men are becoming involved in reproductive decision-making and more accepting of family planning, with perceptions of gender norms lagging behind these changes. In either case, men's attitudes were often described as a potential barrier to family planning use, irrespective of participants' personal experiences with their own partners.

Structural obstacles

In addition to side effects, misperceptions, and women's perception of male attitudes, several structural obstacles deterred women from accessing family planning. Rural health centers are the largest suppliers of reversible methods such as OCPs, injectables, and condoms in rural Honduras (Vernon, 2009). During interviews, participants explained that women seeking an IUD insertion or sterilization procedure must visit a public hospital or the local International Planned Parenthood Federation member association, both of which are located in Choluteca, the capital center of the Department (population: 100,000). Women also reported frequent stock-outs of both OCPs and injectables at rural health centers. When confronting a stock-out, women described being faced with three options: forgoing contraceptive use, switching to a different method, or traveling to a pharmacy in Choluteca to purchase their preferred family planning method.

Both focus group and interview participants described the journey to Choluteca as time-consuming (three to four hours each way), costly, and dangerous. Not only are transportation costs expensive, women typically pay at least twice as much for the same methods at the pharmacy as compared to the rural health center. *La situación* exacerbates structural obstacles; many women lack the financial flexibility necessary to spend their time and money purchasing contraceptive methods from a pharmacy. Moreover, several women mentioned safety concerns associated with traveling to Choluteca, reporting that widespread crime in Honduras makes it even more difficult for them to travel long distances to obtain contraceptive methods. These examples characterize the structural forces that limit family planning accessibility and availability in the region. Despite participants' generally positive attitudes toward family planning, social determinants – including stock-outs of common family planning methods, limited access to longer-acting contraceptive methods, and long distances to health facilities – hindered women's ability to maintain continuous contraceptive use.

Case study

The following case study exemplifies one woman's experience navigating the terrain of family planning access and use in rural Honduras. Her story exemplifies the impact of social determinants, such as *la situación económica* and stock-outs, on contraceptive use.

Berta, 31 years old, lives with her husband, daughter, and three sons in a small rural village. Berta stopped attending school after sixth grade and, because the closest secondary school is a three-hour walk from their home, she expects that her children will likewise not continue past sixth grade. Like most women in the sample, Berta usually spends her time making food, caring for her children, washing clothes, and performing other household tasks. Berta's husband is an agricultural day laborer, a profession she anticipates that her sons will enter when they are older. His work is inconsistent and even when he has a job, the typical wage of 100 lempiras per day (\$5 US dollars) is at times not enough to feed her family due to rising food prices.

After the birth of her third child, Berta decided that she did not want any more children. She initiated use of the injectable but experienced heavy bleeding and weight loss, which caused her to discontinue use after about a year. One year later, Berta became pregnant with her fourth child. Although Berta said that she might want to have another child someday, she said that she cannot have more children right now because of *la situación*; life in her community is too difficult. Since the birth of this last child, Berta and her husband have used two types of family planning: condoms and OCPs. Berta and her husband make decisions together about family planning, and he supports the use of both methods.

Though OCPs are now Berta's preferred family planning method, stock-outs at her local health center have made consistent use impossible. In the meantime, she and her partner have used condoms. In the past few months, Berta tried three different times to get OCPs from her local health center, but each time, the health center had run out of both OCPs and injectables. When OCPs are unavailable at the health center, one option is to travel to Choluteca. Berta avoids this trip—over four hours each way—because of the associated time and cost burdens.

This case study demonstrates how social determinants, including poverty and stock-outs, prevented Berta from obtaining her contraceptive method of choice. Berta's case study also demonstrates how the various barriers to contraceptive use can interact in powerful ways. Berta experienced both individual-level, demand-side obstacles (i.e., personally-experienced side effects) and supply-side barriers (i.e., OCP stock-outs) that limited her ability to maintain uninterrupted use of her preferred contraceptive method. Furthermore, *la situación* has limited Berta's ability to obtain OCPs through other sources, such as private pharmacies.

Discussion

In this study, we found that family planning use was an acceptable and normative behavior in rural Honduras, among women in our sample. Our examination of the most salient barriers to family planning use in rural Honduras highlights the influence of social determinants including poverty, gender norms, and availability of contraceptive methods, on contraceptive behavior. Individual-level determinants, such as knowledge and attitudes, were less influential in women's decision to use contraception than these social determinants. Table 2 depicts our interpretation of how *causes of causes* – including the struggling national economy, societal insecurity, and political instability – influence both the health sector and women's contraceptive use behavior.

The most frequently-mentioned social determinant of contraceptive use was poverty. Indeed, in most Latin American countries, women from poor households have lower rates of contraceptive use than women from wealthier households (Gwatkin et al., 2007). Most women of child-bearing age reported that they did not wish to have any more children; this preference for smaller families was primarily driven by the dire economic situation facing the region. Paradoxically, at the same time that the economic situation influenced women's decisions to use contraception, it was also a driver of the structural barriers that limited women's ability to maintain continuous contraceptive use.

Another important social determinant of family planning use was the availability of contraceptive methods in rural health centers. Several participants reported stock-outs of family planning methods like OCPs and the injectable at their rural health centers. These ruptures in the medical supply chain reflect the fragmented and underfinanced public health system in Honduras. Government corruption and violence have contributed to the decline of the health sector. In addition, the increase in violence and drug trafficking in Honduras has necessitated more government spending on police forces, security, and judicial proceedings, in turn diverting funds that could be used to improve the health care sector (Ramos, 2013). Widespread crime causes fear on a personal level, directly impacting women's ability to access care. Multiple study participants said that the fear of crime when traveling to Choluteca prevented them from obtaining a higher level of reproductive health care.

Our focus on the social determinants of contraceptive use highlights that women's decisions, or lack of decisions, are not made based solely on their individual knowledge and preferences. The women in our sample by and large were both knowledgeable and supportive of a range of contraceptive methods. But larger structural forces, like poverty and stock-outs, often prevented them from obtaining their method of choice. Ameliorating these structural barriers would require a strong commitment to addressing the *causes of causes*, or social determinants, of contraceptive use. Interventions to address these causes of causes require multi-level responses, including structural-level interventions such as conditional cash transfer programs (Darney et al., 2013; Rawlings & Rubio, 2005), gender-transformative interventions (Barker et al., 2007), and training nurse auxiliaries to provide IUDs and other long-acting methods in rural health clinics (Vernon, 2009).

This study has several limitations. First, study participants were selected from a group of women actively seeking health education and clinical services, and therefore might be more concerned about their health, possess higher levels of knowledge about reproductive health issues, and hold more positive attitudes toward family planning than other women in rural Honduras. That being said, the barriers to contraceptive use discussed in the results section are likely even more pronounced among women who do not have access to these health services. A second limitation is that we did not interview men or service providers; the inclusion of both populations could have added depth to our findings. Finally, participants might not have been as comfortable discussing health issues with foreign interviewers as with interviewers from their own communities.

Conclusion

We found that social determinants, including poverty, gender dynamics, and accessibility of family planning methods, influenced contraceptive use. Addressing these structural barriers requires a strong commitment to focusing on the *causes of causes*, or social determinants, of contraceptive use through multi-level and structural interventions. Future studies should interview men to understand male attitudes toward contraceptive use, as well as the way in which gender norms in rural Honduras impact reproductive health. The field would also benefit from further examination of how widespread corruption, violence, and crime in Honduras have influenced public health outcomes, reproductive and otherwise.

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References

- Ashraf, N.; Field, E.; Lee, J. Household bargaining and excess fertility: an experimental study in Zambia. Harvard University; Cambridge, MA: 2010.
- 'We do the impossible': women overcoming barriers to cervical cancer screening in rural Honduras—a positive deviance analysis. *Culture, Health & Sexuality*. 2013:1–15. Author. ahead-of-print.
- Barker, G.; Ricardo, C.; Nascimento, M. Engaging men and boys in changing gender-based inequity in health: evidence from programme interventions. World Health Organization; 2007.
- Casas JA, Dachs N, Bambas A. Health disparities in Latin America and the Caribbean: the role of social and economic determinants. *Equity and Health*. 2001; (8):22–49.
- The cost of a coup. *The Economist*. Jun 9. 2011
- Darney, BG.; Weaver, MR.; Sosa-Rubi, SG.; Walker, D.; Servan-Mori, E.; Prager, S.; Gakidou, E. The Oportunidades conditional cash transfer program: Impacts on pregnancy and contraceptive use in young rural women in Mexico; Population Association of America 2013 Annual Meeting; New Orleans, LA. 2013.
- Demographic and Health Surveys. Encuesta nacional de salud y demografía 2011-2012. Tegucigalpa, Honduras: 2012.
- Gwatkin DR, Rutstein S, Johnson K, Suliman E, Wagstaff A, Amouzou A. Socio-economic differences in health, nutrition, and population. The World Bank. 2007
- Link BG, Phelan J. Social conditions as fundamental causes of disease. *Journal of health and social behavior*. 1995:80–94. [PubMed: 7560851]
- Maxwell JA, Miller BA. Categorizing and connecting strategies in qualitative data analysis. *Handbook of emergent methods*. 2008:461–477.
- Migration Policy Institute. Remittances profile: Honduras. 2011. Retrieved from <http://www.migrationinformation.org/datahub/remittances/Honduras.pdf>
- Peck D. Why so many americans are leaving the U.S. in 1 big chart: Visualizing our emigration problem. *The Atlantic*, July/August. 2013
- Price J, Asgary R. Women's health disparities in Honduras: indicators and determinants. *Journal of Women's Health*. 2011; 20(12):1931–1937.
- Ramos S. Organized crime costs Central America billions. *InfoSur Hoy*. May 8.2013
- Rawlings LB, Rubio GM. Evaluating the impact of conditional cash transfer programs. *The World Bank Research Observer*. 2005; 20(1):29–55.

- Ross J, Hardee K. Access to contraceptive methods and prevalence of use. *Journal of Biosocial Science*. 2012; 1(1):1–18.
- Rubí L. DNIC solo investiga y remite al MP el 20% de los homicidios. *El Heraldo*. Apr 11.2013
- Santelli J, Rochat R, Hatfield-Timajchy K, Gilbert BC, Curtis K, Cabral R, Schieve L. The measurement and meaning of unintended pregnancy. *Perspectives on Sexual and Reproductive Health*. 2003; 35(2):94–101. [PubMed: 12729139]
- Schwab, K. The global competitiveness report 2012-2013. Geneva, Switzerland: 2012.
- Singh S, Sedgh G, Hussain R. Unintended pregnancy: worldwide levels, trends, and outcomes. *Studies in family planning*. 2010; 41(4):241–250. [PubMed: 21465725]
- Speizer IS, Whittle L, Carter M. Gender relations and reproductive decision making in Honduras. *International Family Planning Perspectives*. 2005:131–139. [PubMed: 16263530]
- The World Bank. Poverty data. 2013. Retrieved from <http://data.worldbank.org/topic/poverty>
- Transparency International. Corruption perceptions index 2012. 2012. Retrieved from <http://cpi.transparency.org/cpi2012/results/>
- Tsui AO, McDonald-Mosley R, Burke AE. Family planning and the burden of unintended pregnancies. *Epidemiologic reviews*. 2010; 32(1):152–174. [PubMed: 20570955]
- United Nations. Unmet need for family planning. 2011
- United Nations Office on Drugs and Crime. Global study on homicide. 2011
- USAID. Property rights and resource government: Honduras country profile. 2011. Retrieved from <http://usaidlandtenure.net/honduras>
- Vernon R. Nurse auxiliaries as providers of intrauterine devices for contraception in Guatemala and Honduras. *Reproductive Health Matters*. 2009; 17(33):51–60. [PubMed: 19523582]
- Wang, W.; Wang, S.; Pullum, T.; Ametepi, P. How family planning supply and the service environment affect contraceptive use: Findings from four East African countries. Calverton, MD: 2012.
- World Bank. Migration and Remittances Factbook. 2011; 2012
- World Health Organization. Health financing: Health expenditure ratios by country. 2013a. Retrieved from <http://apps.who.int/gho/data/node>
- World Health Organization. Social determinants of health. 2013b. Retrieved from http://www.who.int/social_determinants/en/

Table 1

Participant characteristics, qualitative study of contraceptive use in rural Honduras

| Interview/ focus group | Age | Number of children | Relationship status | Ever use of FP methods | Current use of FP methods |
|---------------------------|--------------|-----------------------|------------------------|-------------------------------|------------------------------|
| Interview | 32 | 3 | In union | Injectable | Injectable |
| Interview | 24 | 1 | In union | Injectable | Injectable |
| Interview | 36 | 5 | In union | OCPs LAM Tubal Ligation | Tubal ligation |
| Interview | 44 | 7 | Single | IUD Injectable | Injectable |
| Interview | 31 | 4 | In union | Condoms Injectable OCPs | OCPs |
| Interview | 31 | 3 | In union | OCPs LAM | OCPs |
| Interview | 26 | 3 | In union | OCPs Injectable | OCPs |
| Interview | 23 | 2 | In union | IUD Injectable OCPs | Injectable |
| Interview | 24 | 1 | Single | Injectable | None |
| Interview | 27 | 2 | In union | Injectable OCPs | OCPs |
| Interview | 49 | 9 | In union | Rhythm method OCPs | OCPs |
| Interview | 26 | 1 | In union | Injectable OCPs | OCPs |
| Interview | 47 | 6 | In union | Rhythm method OCPs | Rhythm method |
| Interview | 35 | 4 | Single | Injectable OCPs | None |
| Interview | 18 | 1, and pregnant | Single | None | None |
| Interview | 40s | 8 | In union | IUD | IUD |
| Interview | 30s | 3 | In union | Rhythm method | Rhythm method |
| Interview | 28 | 1 | In union | Injectable OCPs | OCPs |
| Interview | 22 | 1 | In union | OCPs | OCPs |
| Interview | 42 | 3 | Single | Not asked | Not asked |
| Interview | 18 | 0 | In union | Condoms | Not asked |
| Focus group | Early 40s | 6 | In union | Injectable OCP | Not asked |
| Focus group | 30s | 3 | In union | IUD OCPs | OCPs |
| Focus group | 30s | 4 | In union | IUD Injectables OCPs | OCPs |
| Focus group | 41 | 5 | In union | OCPs Injectable | Injectable |
| Focus group | 48 | 11 | Widow | None | None |
| Focus group | 61 | 4 | Single | None | None |

| Interview/ focus group | Age | Number of children | Relationship status | Ever use of FP methods | Current use of FP methods |
|---------------------------|-----|-----------------------|------------------------|---------------------------|------------------------------|
| Focus group | 45 | 5 | Single | Tubal ligation | Tubal ligation |
| Focus group | 39 | 4 | In union | Tubal ligation | Tubal ligation |

Note: Because women were not systematically asked about all possible contraceptive methods, this table only includes methods that participants mentioned during the course of the interview or focus group.

Table 2

Influence of macro-level forces on the Honduran health sector and study participants

| Macro-level force | Impact on health sector | Impact on study participants' contraceptive use |
|-------------------------------|--|--|
| Honduran economy | Reduced government resources and funding for health | Preference for smaller families Limited resources for accessing family planning methods of choice |
| Political instability | Fragmented public health sector Interrupted health service delivery and supply | Stock-outs at rural health centers |
| Societal insecurity and crime | More funding for security, less for the health sector Deters foreign investment | Fear of traveling to larger city to access higher level of care |