

Perceptions of Adolescent Pregnancy in Loreto, Peru

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A thesis

submitted in partial fulfillment of the
requirements for the degree of

Master of Public Health

University of Washington

2022

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Program Authorized to Offer Degree:

Public Health

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Abstract

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Adolescent pregnancy has been framed as a public health concern for decades as it is associated with increased risks of maternal and perinatal mortality and poor psychosocial and economic outcomes. Rates of adolescent pregnancy in the Amazonian region of Peru continue to be high despite falling rates throughout the rest of the country during the pre-covid era. Given the importance of context when developing interventions to mitigate the risks associated with adolescent pregnancy, this qualitative study elucidates local perspectives from semi-structured interviews conducted with 20 parents, adolescents, community health workers, and health post workers in Loreto, Peru. The results point to four major themes: (1) the acceptance of adolescent sexual debut and pregnancy in Loreto is complex and nuanced, (2) varying options for the future of adolescents affect sexual behaviors and rates of adolescent pregnancy, (3) accountability for the wellbeing of adolescents falls mainly on their parents, and (4) inconsistencies in the region's reproductive health services, resources and education are points of vulnerability for adolescents in pregnancy prevention. These themes highlight micro, mezzo and macro level areas for interventions to support young people's agency and wellbeing in making decisions about their future including when/if to become a parent.

Background

The period of adolescence is widely considered to be a time of exploration and rapid brain development that is formative for characteristics seen into adulthood (Bayer & Alburquerque, 2014; Patton et al., 2016). From an intergenerational perspective, investments in adolescent health and wellbeing now will reap benefits for years to come (Patton et al., 2016). The most effective interventions and policy solutions to combat risk behaviors during this sensitive developmental period center young people as experts in their own lives (Lerner, 2005). In Peru, studies using a positive youth development lens have helped shape intervention strategies for the past two decades, such as with the Youth Policy Guidelines (Consejo Nacional de Juventud, 2005). Further, Peru's Adolescent Health Policy Guidelines of 2005 specified the focus for universal access to comprehensive, youth friendly services, particularly for sexual and reproductive health care in rural regions (Ministerio de Salud, 2005).

For young people whose biological sex is female, there is the added complexity of the risk of pregnancy. Adolescent pregnancy and a lack of reproductive health education and services for young women are long standing health challenges in Peru (WHO & The Partnership for Maternal, Newborn, and Child Health, 2015). Despite falling fertility rates and fewer instances of maternal and neonatal mortality in the Latin American region in recent years, rates of adolescent pregnancy have remained the same or increased slightly in some areas of Peru (Neal, et.al. 2018). In Loreto, Peru, the large, rural Amazonia region in the northwestern corner of Peru, only 63% of women report using contraception of any kind and only 43% report using a modern method (ENDES, 2018). In particular, rural adolescents have higher fertility rates than their urban peers. In Loreto, more than 25% of adolescents between ages 10 and 18 are or have

been pregnant (nearly double the national average), and the average age of first pregnancy is 16.6 years old (ENDES, 2018).

Adolescent pregnancy is associated with substantially increased risks of maternal and perinatal mortality, along with poor psychosocial and economic outcomes for young mothers (Conde-Agudelo, A., et.al., 2005; Maynard, R., 1996). In Loreto, 83.5% of all women received prenatal care, a surprisingly low number considering the free public healthcare program Seguro Integral de Salud, and only 71.5% of women give birth in a health establishment (Instituto Nacional de Estadística e Informática, 2017). In rural areas of the region, these rates are even more concerning with 64% of women giving birth at home (Reinders et al., 2020). Infant mortality in this *selva* (jungle) region is high at 21 per 1,000 births as compared to the national average of 15 per 1,000 births (ENDES, 2018). Further, adolescents are developmentally less able to cope with the challenges of parenthood and are more vulnerable to sexual violence, peer pressure and other high-risk behaviors (Rodríguez, 2013). A distinct concern is the gap adolescents face in accessing necessary sexual health preventative care and perinatal services. While such services do exist in Loreto, a 2019 study found that 26% of their respondents were not aware of adolescent-specific services, and there was overall low demand for family planning resources in the region (Westgard et al., 2019). Further, educated mothers in Peru are more likely to receive antenatal care and skilled assistance during birth, yet early parenthood is associated with lower educational achievement (WHO & The Partnership for Maternal, Newborn, and Child Health, 2015).

In previous studies in Peru and Latin America, adolescent pregnancy has been shown to be influenced by a broad range of determinants, including social, cultural, familial factors (Goicolea, I. et. al., 2009). Individual characteristics such as personal and educational aspirations

and self-esteem also play a role (Salinas Mulder, et. al., 2014). Studies have emphasized the need for one or more programs to concurrently address multiple risk and protective factors for adolescent pregnancy in order to make a significant impact (Brindis, C.D. et. al., 2005). Determinants of reproductive health and adolescent pregnancy are known to be community-specific, and few studies have been conducted to elucidate the local facilitators and barriers to adolescent reproductive health in Loreto (Córdova Pozo, K., et.al. 2015). Given the current concerns in Loreto, there is an evident need to better understand the determinants of adolescent pregnancy in order to appropriately target public health programs to address this issue.

Methods

Aims and Objectives

The primary aim of this study was to describe the period of adolescence in rural Loreto and to more deeply understand the perceptions of adolescent pregnancy and sexual and reproductive health (SRH) in the four communities under study. Researchers at Mamás del Río, a program based at Cayetano Heredia Peruvian University that supports maternal and newborn health using mHealth technologies, helped to conceptualize this study due to their ambition to incorporate programming that specifically targets pregnant youth in the region (Castro-Aroyave & Bautista, 2020; Reinders et al., 2021). They supported this work via two Peruvian researchers, two Fogarty fellow researchers and community connections with health workers. In 2020-2022, a University of Washington MPH student completed the analysis of the data collected in 2016-2017 with the support of Magaly Blas, founder of Mamás del Río, and one of the original researchers, Jessica Raquel Pérez Andrade.

Study Design: Setting

Loreto is the largest region by area in Peru, encompassing much of the Peruvian Amazon. This predominantly rural zone hosts more than 65 indigenous groups classified into 16 language families (Instituto Nacional de Estadística e Informática, 2018). This study focused on the remote Parinari district, part of which lies within a national ecological reserve. This district is home to about 7,200 inhabitants, most of whom are members of the Kukama-Kukamiria indigenous group (Mejia et al., 2021). Most people in this region speak both Spanish and their indigenous language. Study communities are reachable only by boat and are a minimum of 7 hours by river and a 2 hour road travel from the department capital, Iquitos. Notably, wide river flood plains change access to different communities, particularly the more densely populated cities, throughout the year. The economic opportunities are largely fishing or agrarian-based, although, in urban centers like Iquitos, one may find employment in construction, sanitation or domestic work. The gender role of women is typically to care for their children and homes and/or maintain in-home stores for homegrown produce and handicrafts (Reinders et al., 2020; Westgard et al., 2019).

Study Design: Participant Selection

This study sampled participants from four communities, San José de Parinari, Leoncio Prado, Santa Rosa de Lagarto, and San Martín de Tipishka, and used the research team's connections with Mamás del Río to connect with key informants in person and via mobile phone communication. Participants for this study were selected on a non-probabilistic, iterative basis utilizing existing community contacts with Mamás del Río using purposive and snowball sampling techniques. Data collection ended sooner than theoretical saturation was reached due to time and resource limitations. School was not in session during the months that the research team

was in Loreto, which made connecting with adolescents more challenging. Given the descriptive nature of this study, key informants were considered to be one of the following: 1) adolescents ages 12-18; 2) parents of adolescents; 3) community health workers; or 4) health post workers who provided care for adolescents. All participants had to currently reside in one of the four communities under study and speak Spanish to be eligible.

Data Collection

Once key informants were identified, interviews were scheduled and conducted in the community, typically in participants' homes. Interviewers made an effort to ensure privacy in each interview, including finding a secluded space in the homes and closing doors when possible. For four of the interviews, there were other family or community members present. Each interview team consisted of one Peruvian and one American researcher and all interviews were digitally recorded, transcribed verbatim, and reviewed by team members to establish familiarity with the data during the collection process. All interviews, transcriptions and coding were conducted in Spanish. Interviews took place over the course of three weeks and the two teams of two researchers came together to debrief and review themes periodically during data collection. Interviews followed a semi-structured interview guide, adapted from a preexisting framework developed by the WHO to gather qualitative data on adolescent SRH (Cleland et al., 2014). The interview guide was tailored by all four researchers and checked for cultural appropriateness by Mamás del Río staff. Interview question topics included: 1) age and nature of adolescent relationships, 2) typical activities and aspirations of adolescents in the community, 3) prevalence of western contraception and herbal medicines, 4) role of religion/ spirituality, 5) impact of the hyper-sexualized stereotype of Amazonian communities, and 6) impact of gender

and other power dynamics on adolescent relationships. Interviews lasted between 16:12 minutes and 1:12:31 hours with an average duration of 39:05 minutes.

Data Analysis

Based on the semi-structured interview guide, the original research team defined a code book. Due to time and resources limitations, the original research team of four did not complete a comprehensive analysis of the data; however, since Mamás Del Río has maintained its relationship with the University of Washington, a secondary data analyst was able to revisit the data in 2020-2021. During the secondary coding process, the new analyst used the original code book as a foundation while adding six new codes and subcodes. Two members of the original research team supported the secondary coder by answer questions about their process and by providing insight into emergent themes. One member of the original research team coded three interviews using the updated codebook to ensure that the secondary analysis aligned with what the original team captured.

Transcripts were coded in Dedoose and themes arose from queries created of coded quotations, especially quotes with multiple codes attached, and reviewed to identify themes and exemplary quotes. This process sought to identify patterns both within and between different key informant respondent types. These deductive codes referenced the emergent code book from the original research team and cross-checked for relevance.

Ethical Approvals

The original research team obtained IRB approval for the procedures of this study through the University of Washington and the Universidad Peruana Cayetano Heredia in 2016. The participants provided written informed consent to be interviewed. The secondary research

analyst did not need to obtain approval from the University of Washington’s Human Subjects Division because all identifying information had been removed from the data.

Results

The research team interviewed 21 key informants in total from the identified groups: 1) adolescents ages 12-18 (3); 2) parents of adolescents (11); 3) community health workers (4); and 4) health post workers (3). In three of the mother interviews and one of the father interviews, there were challenges with the recordings (due to environmental noises, quiet vocal tones, etc.). Coding was conducted on the intelligible parts of the interviews, where 80% or more of the audio was clear to the listener and able to be transcribed. One interview with a mother was not of high enough quality to be used in this study (over half of recording was unintelligible).

Type of participant	Number of Participants	Average Interview Duration
Adolescent	3	29 min (16 min: 41 min)
<i>Males</i>	2	
<i>Females</i>	1	
Parents of Adolescent(s)	10	36 min (26 min: 43 min)
<i>Males</i>	2	
<i>Females</i>	8	
Community Health Worker	4	48 min (46 min: 1 hr 13 min)
Health Post Worker	3	50 min (47 min: 54 min)
Total Sample	20	39 min

The different stakeholder perspectives enhanced the image of how the communities of the Loreto region in Peru view and respond to adolescent pregnancy in context. Given the heterogenous population under study, there was some variety in perceptions of adolescent pregnancy that emerged from the data, and both differential reporting and consensus points have been considered in developing these results. The themes that emerged from the interviews were the following: (1) the acceptance of adolescent sexual debut and pregnancy in Loreto is complex

and nuanced, (2) varying options for the future of adolescents affect sexual behaviors and rates of adolescent pregnancy, (3) accountability for the wellbeing of adolescents falls mainly on their parents, and (4) inconsistencies in the region's reproductive health services, resources and education are points of vulnerability for adolescents in pregnancy prevention.

Before presenting the themes, it is important to understand the commonly understood practices of adolescents. Respondents indicated that the age of sexual debut was anywhere between 11 and 14 years old. There did not seem to be a distinction between when adolescents first form romantic relationships (dating) and when they begin to engage in sexual activity together. Respondents did not speak about gender differences in the interest toward engaging in relationships with other adolescents, implying that both young women and men equally engage in flirting. When spoken about in the community, there appeared to be an open-secret nature to adolescent relationships, where community members saw adolescents together and made assumptions about their activities and the nature of their relationship. For instance, the term *andar* (to walk) was used to imply young people dating. One mother stated, "Here it is seen that at 15 years old, they walk like this, adolescents [do], well the boys, and they already are going out." Additionally, when respondent speak about a woman being too young to become a mother, they appeared to define young as ages 11- 15, whereas after age 18, pregnancy became a more acceptable norm. Becoming pregnant between the ages 15-18 appeared to be a grey area with no consensus generated among participants.

Theme 1: The acceptance of adolescent pregnancy is complex and nuanced

In all interviews, there was a sense that adolescent pregnancy is an accepted reality for these rural communities, yet the acceptance of this societal trend prompted complex and nuanced responses from study participants. Most participants seemed to hold some level of uncertainty

about the idea of becoming pregnant at a young age, citing the challenges to completing one's education and to financially caretake for the new family member as primary concerns.

Notably, there was not much shameful language used to talk about the young mothers themselves, though perhaps this was in part due to the association of the interviewers with Mamás del Río. In most interviews with adults (parents and health workers), each person had at least one story with shock value, meaning that they shared an extreme example to highlight the fear of and challenges with adolescent pregnancy. However, the words used to tell these stories reflect a sense of pity and heartache for the young woman in question rather than shaming their behaviors and choices. This aspect may have the dual effect of protecting these young women from the challenges of social isolation, while also perpetuating a narrative that young women are without sufficient agency to control their own lives. One community health care worker stated:

People say: [the young person] didn't know or their parents didn't tell them anything or [adolescents] don't want to understand. Things always go that way, but finally [the parents] end up understanding that, accepting, what they have to do. The good thing is that I have seen more than one case in which [the parents] have been able to accept, understand, because others end up throwing the girl out, mistreating her.

Again, this respondent points to the compassion for the pregnant young person as the victim of ignorance and the importance of parents taking accountability for the youth and baby. She also notes the challenge of reaching and supporting young mothers when they are not allowed to remain with their family of origin or her partner's family.

The deep family ties in the region further complicate the acceptance, since parents are seen to play a role in the outcome of pregnancy, further removing blame from the young couple. The majority of participants sampled were parents, which may influence this perception from the

data. These respondents represented a variety of parenting experiences ranging from a mother of eight children to a father of two, and some parents were also grandparents who pointed to the joy of their role as caretakers in their communities. As with any heterogenous population, they accordingly shared mixed responses around the acceptability of becoming a parent young; however, there was considerable consensus that if rates of adolescent pregnancy are going to change, parents must play a role. At the same time, some parents felt deceived by their children in regards to their engagement in romantic relationships. One mother shared, “They deceived his father, ignored him, and at that age, 15, it is seen as normal.”

When discussing acceptance of adolescent pregnancy, aspects of sexual violence, consent and coercion must also be considered. Almost all interviewees touched on notable age and power differences in relationship. One health post worker shared her concern about a professor in the community who was known to have sexual relations with the young women he taught. Overall, there were a variety of examples of relationships between adult men (25-30+) and young women (15-18) where respondents indicated a mix of not being shocked but also holding some judgement for these age-discordant couples. This pattern may indicate that older men are aware of future prospects for young women and take advantage of the vulnerability of young women. In cases of rape or coercion, respondents did not share a consistent narrative about how to legally report or take action against perpetrators, with one father stating that sexual violence simply does not happen in their community.

Theme 2: Varying options for the future of adolescents affect sexual behaviors of adolescents and rates of adolescent pregnancy

Among all respondents, there was variability in what educational and work options existed for adolescents from the region to pursue in the future. In turn, what an individual was

able to imagine for their future seemed to play a role in their day-to-day decisions at the present moment such as sexual debut. When there was a sense that options for the future were limited, interview participants indicated that there was lower motivation to remain in school and higher incidence of risky behaviors like engaging in sexual relationships. One adolescent respondent noted, “That’s because, here, they don’t see a greater possibility.” This was stated after sharing his perspective that 22 is an ideal age to start a family because one can secure a job and become more than “just a father.”

University level education was not seen as a common goal for study participants, which participants implied had the added effect of disincentivizing students from completing secondary school. The government scholarship program, BECA 18, provided opportunities for some scholars to pursue university education, but this was not seen as common or accessible for most participants, including that only two parents mentioned it during interviews. Participants did not speak about job options that required the equivalent of a high school degree, which likely compounds with the sense of ambivalence toward completing secondary school. One father noted that his daughter left school to marry because she wanted to be near her family and be a farmer, which did not require a degree. There appeared to be an interplay between financial independence and family obligation, where many young people play an important role in the agrarian endeavors of their families supporting with farm chores before and after school.

Most respondents were not able to name clear trajectories for young people who chose to complete school. One mother noted, “Here they don’t think at all about that, the only thing they think about is growing up (however they can)” signifying the vagueness of future prospects for youth in these rural communities. The most specific ideas about future prospects came from the

health post workers, who themselves had received formal healthcare training and often did not come from the communities where they worked.

When thinking about the future, it is imperative for adolescents to feel safe and supported to pursue their goals. In some cases, young women in Loreto travelled to find work in more urban centers, which participants noted comes with risks of being taken advantage of or finding a partner in these cities to settle down with far from their home of origin.

Theme 3: Accountability for the wellbeing of adolescents falls mainly on their parents

In all interviews, respondents spoke to the important role of parents in preventing and managing the long-term consequences of adolescent pregnancy. It appeared that parents largely feel responsible and are held financially accountable for times when their children become pregnant. This pattern seemed to be reinforced by the limited legal frameworks to hold male partners accountable, especially when the father was older or from another community. Importantly, there was a lot of emotion around the concept of the role of parents in the interviews. Many parents reflected fear that their daughters would become pregnant and a sense of shame if they were not able to protect their children. Others appeared to accept the outcome of pregnancy with concern for how to financially and logistically include a new baby into their family dynamic.

Considering the intensity of the sense of responsibility, the ways for parents to protect their children must be considered. Notably, it emerged from the interviews that parents' own knowledge about sexual and reproductive health impacted what they were able to teach their children. One mother in the study reflected on how she learned about *las fechas*, or the rhythm method of family planning from her mother growing up.

[We learned] through our mother. Before when she taught us, there was not this method of care [the pill/injectables]. They took care of themselves [with the rhythm method], nothing more [than] talking between two couples, that they are in danger how many days when we cannot have relationships.

The mother conveyed discomfort in discussing this subject matter with the research team and her response points to communication struggles in passing information on to her own children.

Another mother described her challenges with finding a family planning method that worked for her, which seemed to limit her willingness to share these prevention options with her daughter.

Therefore, a compounding effect is created by the limited parental competency on modern family planning options and the emotional discomfort of parents and children in discussing these options. Among all parents interviewed, there was a sense of obligation to talk with children about sexual and reproductive health, but there was no consensus around what these conversations needed to entail.

A further uncertainty appeared around when it would be appropriate to talk with a child about SRH topics, especially given the secretive nature of adolescent relationships. One father was an exception as he was adamant about the importance of speaking to his children daily:

Well it's on the parents to talk daily with our kids, daily, because if we as parents don't speak with our kids, they do what they do, commit certain acts and sometimes become pregnant, and when they are already pregnant they will quickly realize. But many parents here in this community still do not speak with their children. (Father)

This father's reflection that many parents do not speak with the children about SRH themes is of the utmost importance given that the home appeared to be the primary space for learning about safe sexual health practices. For other parents without a clear stance on when and how to talk

with their children, the differences among individual household dynamics of these conversations likely contributes to the inconsistencies in sexual health messaging and practices, especially when adolescents with varied information are then involved romantically with one another.

Although the sense of responsibility for pregnancy was shared by most parents, some participants pointed to the effect of diffusing the responsibility of educating youth about safe SRH practices to other community sources. One parent noted that mixed messages from government stakeholders, popular media and increased access to porn on cell phones was influencing the behaviors of adolescents in the community. Another community health worker shared:

Television, the health personnel themselves do this work [to educate youth] and in each community, there are agents, people who have received training who also make it possible for their community to talk a little about [SRH topics], and I think [most adolescents] know how to defend themselves regularly. But what they know, I don't know, practice is something else, that's the point.

The many layers of inconsistencies for parents in how to emotionally navigate SRH conversations, what content to include and from what source should these messages emerge speaks to the nuanced challenge of how parents are held accountable for the outcome of pregnancy in adolescence.

Theme 4: Inconsistencies in Loreto's reproductive health services, resources and education are points of vulnerability for adolescents in pregnancy prevention

Among respondents, there was great variety in their preference for family planning method and experiences of using health services. These inconsistencies are indicative of the challenge of implementing health policies and initiatives in this region, speaking to both the rural

context and meeting the unique needs of adolescents. As seen in the previous themes, when there is not a clear path for how to access SRH services and contraceptive care within the community environment, parents are left to feel responsible for protecting their children and youth are not empowered to engage safely in the romantic relationships that appear to be largely socially sanctioned otherwise.

The most ubiquitous form of contraceptive care that emerged from the interviews appeared to be *las fechas*, or the rhythm method of family planning. Given that this method does not require a health post or healer visit, the prominence makes sense. Participants also described using *Preservativos/ condones* (condoms), *pastillas* (pills), and *ampollas* (injectables). There appeared to be some mixed opinions about appropriateness of these methods for young women, with most of the mother respondents speaking about these options in their own lives rather than sharing these practices with their children. Condoms did seem to be an accessible and popular choice for adolescents, especially when they were available at health posts or in non-judgmental community spaces. There was not any data about the gender or age of the person obtaining the condoms nor was there clear information about how youth learned to use condoms.

Further, the interview guide featured questions about plant-based contraception methods as well as the use of non-western healers (*brujas*-witches, *curaderos*- healers, etc.) for both contraception and abortion practices. Participants seemed reluctant to discuss abortion practices related to traditional healers, perhaps because of the research team's positionality, but many participants did share about *vegetales*, or plant-based treatment, as a prominent method of anti-contraceptive care that was accessible both by proximity and social acceptance among women in the community.

This study identified a variety of barriers to accessing family planning for young people, both logistical and cultural. In terms of logistical challenges, location of services was highlighted as a barrier in almost all interviews, especially when compounded by inconsistent hours at busy healthcare facilities. Several mothers spoke about waiting a long time to receive family planning care themselves and noted the difficulty of bringing their children into this arduous trek. There appeared to be a gender difference in interest in utilizing health posts; several respondents spoke about the challenge of getting their daughters to health posts, yet no one identified that their male sons needed to access sexual healthcare in the same way. The challenge of location was made more difficult when youth did not have parental support in accessing modern family planning. Without support for the transportation and associated costs (i.e. boat transport fees), it was hard to obtain family planning methods at health posts.

Some parents interviewed felt strongly that young people should not use modern family planning options because of their own challenges and uncertainties with these methods while others shared a more ambivalent stance. The interview guide asked all participants about the role of religion in opinions of contraceptive care; however, only two respondents indicated that Christian religious doctrine influenced their opinions toward young people not using modern family planning. Other more emotionally-based barriers also emerged including: stigma associated with using SRH services, the shame and awkwardness of discussing SRH at home and the secretive nature of adolescent relationships.

Among all participants the gaps in how they access SRH knowledge points to the faults in implementation of national health policy in the region. Some of the Health Post Workers indicated frustration with the rural nature of their placement in Loreto, which may impact how they deliver health services through a lens of superiority towards the community where they are

working. Conversely, other Health Post Workers indicated that they had a vested interest in bridging the gaps of care in the community. As one Health Post Worker noted, “They can speak at school or come [to the health post]. Parents and children will talk to you one or to one another, but not all of them, and not all of them are the same [conversations].” Her ambition was to ensure all community members were equipped with the knowledge to make the best choices for themselves. Another shared her hope to host talks in the community to share her knowledge and training:

Yes, I want to hold meetings with some mothers, and it would also be good to invite the adolescents to have a meeting and talk about... how to use condoms, or how is their way of living, as they are adolescents. If the things they do will be good or the things they do will be bad. But... I ask that some mothers [and they] do not like this [idea]. Some don't like to speak to their children like this, with words that they will understand because they say that suddenly you are putting other things that should not be in their head.

This worker highlights the ways she was considering on how to make these gatherings welcoming and culturally relevant for community members.

Particularly, there appeared to be a significant challenge presented by the lack of a standard, guaranteed SRH curriculum in schools. Among all respondents, there was a mention of SRH in schools; however, there was no clear sense of what this curriculum comprised of nor a certainty that schools always incorporated SRH support. Inconsistencies in school SRH seemed to depend on teachers' personal beliefs and community practices and access in different areas of Loreto. Some participants named schools as a resource to acquire contraceptive methods like condoms, while some shared a feeling that SRH did not belong in schools. This variability is particularly concerning when youth mingle with romantic partners in other communities, who

may have a very different knowledge base. With the inconsistencies in this SRH landscape, it is not surprising that youth are not able to enact their agency to protect themselves from the outcome of pregnancy if that is what they want.

Discussion

The results of this study show the dynamic and nuanced interplay between adolescents' sense of agency and what they are able to access in the world around them. From work opportunities to contraceptive care, awareness of options was inconsistent among respondents, a pattern that exposes several points of entry to enhance adolescent wellbeing and to intervene in the challenges that stem from adolescent pregnancy.

In Loreto, the family structure could be both protective for pregnant adolescents and a challenge for accessing SRH knowledge and resources. The respondents' sense of pity and compassion granted to pregnant adolescents points to the social acceptability of young parenthood. Largely, the most social disdain for pregnant adolescents was aimed at youth below the age of 15. After 15, it became more acceptable for a young woman to make her own choices, and among all respondents there was a focus on economic stability and independence as the key markers for being ready to start a family. Given that a 2021 study that found ages 15-19 to have increased odds ratio of pregnancy in Peru, one might consider whether social acceptability or high incidence came first (Mejia et al., 2021). Questions remain about the idea of consent in young adulthood, especially with the acceptability and prevalence of age discordant relationships (often with much older men dating teenaged women). Notably, norms about reporting instances of sexual violence were vague and unclear, which may signify a systems level opportunity to invest in accountability structures that protect young women from sexual coercion and violence. Further, the societal prevalence of adolescent pregnancy must be seen alongside the

embarrassment and shame of discussing SRH as found in this study and others (Casapia, 2018; Mejia et al., 2021). When youth are not able to discuss SRH with trusted adults around them, they are less likely to access the support they need to protect themselves from pregnancy, should that be their intention.

In line with positive development theory, there appeared to be consensus that when adolescents have a mutually beneficial relationship with the people and institutions around them, they were more likely to hold dynamic aspirations for their future, including, but not limited to, starting a family (Lerner et al., 2005). Two of the male adolescents, who both indicated positive relationships with their parents, spoke about their ambitions to have a career before starting a family. Conversely, when there was a sense that options for the future were limited, interview participants indicated that there was lower motivation to remain in school and higher incidence of risky behaviors like engaging in sexual relationships. However, to see this behavior only as risky because of potential poor health outcomes misses the developmental and cultural importance of becoming a parent. Other studies about adolescents in Peru and Brazil point out that adolescent pregnancy, which has been framed as a problematic pattern in the scientific literature, may in fact play an important role in social wellbeing of young women to carve out their future when other options are limited (Heilborn et al., 2007). The function of gender roles and societal expectations as a source of meaning-making during the adolescent period cannot be understated.

Participants indicated that economic pursuits were largely limited outside of agriculture and fishing within the rural communities of Loreto. Equal importance was given to the role of being a parent, and many of the female-parent respondents noted that motherhood and care-taking are valuable endeavors. Interviewees did not point to a gender difference in work options,

but that may be because gender roles are so entrenched that women working in the home and men on the farms was implicit. As other studies about youth in Peru have shown, consideration about targeting messages to young men vs. young women should be given (West et al., 2014).

Study respondents indicated that both young men and women were encouraged to continue their education, but limited job prospects impacted adolescent who may otherwise have been interested in completing secondary school. In terms of tertiary education, the government scholarship program BECA 18 provided opportunities for some scholars to pursue university education, but this was not seen as common or accessible for most participants. This scholarship program requires a relatively high minimum average grade in secondary school to qualify, a mark that is hard to achieve in poor performing rural schools. Additionally, as of 2022, this program offered just 5,000 scholarships country wide, with reliance on access to reliable internet needed in order to complete the application, which further contributes to real and perceived barriers to accessing this higher education equalizer (Pronabec, 2021). Ultimately, these limited work and learning opportunities appeared to create a tension: the pull to urban centers with more job opportunities and educational centers colliding against the value of staying close to family and community of origin. Although the urban center most often described was Iquitos, the challenges of travel in this region make even the closest city a far distance from family. The question then stands for how to empower young women in this context to make the best decision for themselves while weighing the importance of family networks.

The role of family is evident not just in future ambitions of youth, but also in how parents support their children with SRH knowledge and resources in their teenage years. Given that there is not a clear path for how to access SRH services and contraceptive care within the community, parents must fill the void, making them the most consistent and primary source of SRH

knowledge for adolescents. Notably, a study of indigenous communities in the central jungle of Peru found that parents talking to their kids about SRH was a large protective factor against the outcome of adolescent pregnancy (Mejia et al., 2021). However, parents were often uncertain about contraceptive care options available, and they too were experiencing similar emotional discomfort to their children. As many community members in Loreto have lived there for generations, historically limited access to SRH education in the region continued to impact the health and safety of adolescents as of the time of this study. Only in 2013 did the Peruvian healthcare system invest significantly in family planning efforts, and given the hard-to-reach nature of Loreto, there is reason to believe that this generation is one of the first to have the options of modern contraception (Casapia, 2018). Therefore, incorporating curriculum and interventions that support parents' burgeoning knowledge of SRH is key. Beyond prevention, support should also be granted to families who experience adolescent pregnancy. As described in this study, care for the young person who is pregnant falls on her family. With the high incidence of adolescent pregnancy in the region, holding a cultural standard of providing food and shelter in the youth's home is critical to keep young mothers and their babies safe.

Overall, all study participants' responses highlighted the lack of consistent information about how to protect oneself from becoming pregnant. As one Health Post Worker shared, "If you want to plan, you plan. If they want anything, we must teach you, but education is first, so that they can act [on it] wherever they go." However, at the time of the study, schools were inconsistent in offering SRH information and resources, and health posts were seen to be costly and hard to access. As other studies have shown, SRH curriculum in Peru can be a protective factor against risky sexual behavior, especially for young women, and focus on improving schools as an entry point for youth services can be a hugely beneficial intersectoral endeavor

(García et al., 2009). School-based curriculum could also include material about healthy relationships, consent and ways to advocate against gender-based violence as a way to more openly address this hard to discuss social concern in context, giving the community the power to drive these conversations and supports in the future (Shannon et al., 2017).

Health centers were also not reliable sources for SRH resources and information. These facilities did not have guaranteed stock of all modern family planning options, were sometimes closed when community members visited, were hard to reach by boat due to cost and travel time, and sometimes had prohibitively long wait times for patients. Another study from the region found that there was low demand for contraceptive care, and yet most respondents (71%) shared that their previous pregnancy was unwanted, which signals the disconnect between need and demand. Further, these authors found that among adolescent mothers there was limited awareness of youth-friendly services (Westgard et al., 2019). Attending to these concerns within the system and collaborating with community partners to bring services closer and offset other barriers will be key to creating a more consistent health accessibility landscape for all community members. Additionally, these findings do not encompass *las fechas* rhythm method nor the local knowledge of plant-based and traditional healing methods of contraception. Finding ways to integrate local knowledge with standard medical practice might increase use. Special consideration should be given for how to share the tools that make *las fechas* method particularly effective, such as menstrual cycle tracking options.

By enhancing the intersectoral approach to SRH knowledge and resources, there is a stronger likelihood that young women and men will learn SRH and be able to access their contraceptive method of choice. Inviting parents to learn about SRH alongside their children may help ensure consistent and clear messaging. Centering the agency of young people to make the

best decisions for themselves is key to generating overall wellness for young people in their community.

Conclusion

The physical landscape and distinct culture of Loreto creates a unique context to consider adolescent pregnancy in the region. Since there had been pre-COVID era gains made throughout the Latin American region and in Peru to reduce rates of adolescent pregnancy, exploring the distinct factors of Loreto helps to illuminate why this region continues to have disproportionately higher rates of adolescent pregnancy. The implementation of Peruvian health policy and free health care options in the region is more challenging given the transportation concerns and the high cost of access for many folks living in the region. Advocating for health posts to have sufficient staff to be open when community members travel to utilize these services, ensuring enough stock of varying modern family planning methods, and incorporating ways to bring these methods to community through community health workers and schools will reduce barriers to effective family planning. Further, making SRH care more culturally relevant by incorporating traditional knowledge and healers into this care would help generate buy in and demand.

Efforts to reduce shame and stigma of SRH conversations can empower both parents and their children to have the knowledge they need to keep themselves safe. Parents are key to transmitting facts and cultural trends to the next generation, and they are taking this role very seriously already. Programs that bring SRH conversation resources to parents and youth can help foster a most consistent narrative about safe SRH practices and reduce the need for secrecy for adolescent relationships.

Youth are developmentally seeking support in building their futures. Some may want to pursue higher education, work opportunities outside the community or options that allow them to

stay close to home and contribute to the society around them. The more consistent and nurturing the adults in their lives are, the more they will be able to achieve their goals. Ensuring that all youth are operating from the same baseline of SRH information will be a key element to ensuring that young women in particular are able to opt into motherhood when they are ready with a partner that they trust. Indirect prevention for adolescent pregnancy could involve ways to support youth in career planning and budgeting. Since economic stability and educational attainment are indicators of preparedness to start a family, supporting women who become pregnant to achieve these markers will be key to ensuring their and their babies' health and wellbeing.

Acknowledgements

No federal or state funding was received in association with this research. None of the data presented in this paper has been published previously. This research was conducted with support from Mamás del Río in terms of community connections and data collectors. The author of this paper approached the de-identified data from 2016-2017 between the years of 2020-2022 to complete analysis. The time between data collection and completion of the analysis may influence findings, particularly the impacts of the COVID-19 pandemic.

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