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“I Didn’t Tell Anyone Because I Was Very Afraid”: Girls’ Experiences of Menstruation in Contemporary Ethiopia

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Abstract

Menstrual health is central to girls’ wellbeing, and is connected to their rights to health, education, safety, non-discrimination, and autonomy. This article investigates girls’ experiences of menstruation in present-day Ethiopia. Results, based on data collected from 120 girls in two regions, illustrate the challenges associated with menstruation, including menstrual taboos and cultural beliefs surrounding menstruation, myths about menstruation and sex, and restrictive social expectations related to marriage, and interpersonal interaction. These challenges diminish girls’ health, education, safety, and autonomy, and in so doing, underscore the relevance of menstrual health to rights’ agendas that seek to advance girls’ wellbeing.

Keywords

menstrual health; menstruation; reproductive rights; puberty; Ethiopia

Introduction

The experience of menarche, or first menstrual bleeding, is a significant event in the lives of girls worldwide. Physically, pubescent girls must learn to manage monthly vaginal bleeding, and may also experience menstrual-related discomforts such as cramps, nausea, and fatigue. They must adjust to other pubertal body changes, such as breast development, and new emotions including sexual desires. Girls also must learn to navigate the social expectations that accompany physical maturation, and a new life stage, including shifting gender expectations and responsibilities, and changes in access to schooling and public space (Hallman, 2014). In many places, cultural beliefs, including menstrual taboos (Douglas, 1966; Delaney, Lupton, & Toth, 1988), social institutions such as early marriage (Erulkar, 2013; Mensch, Bruce, & Greene, 1998), and social and behavioral restrictions placed on menstruating girls (Beyene, 1989; Fitzgerald, 2001) further complicate girls’ abilities to transition safely into womanhood.

The challenges that girls face at menarche and while menstruating in resource-limited settings have been largely overlooked by the adolescent reproductive health research agenda (Sommer, 2013; Sommer, Sutherland, & Chandra-Mouli, 2015; Phillips-Howard et al., 2015). The global reproductive health and rights community has more often focused its research and programs for adolescents on contraceptive use, family planning, and HIV risk reduction (UNAIDS, UNFPA, & UNIFEM, 2004; UNFPA, 2003). Likewise, challenges related to menstruation have rarely been explicitly situated within sexual and reproductive health and rights frameworks, let alone in international human rights (WHO, 2010), an observation Boosey and Wilson (2016) labeled as “overwhelming silence.” Nonetheless, recent research argues that reproductive rights are intertwined with social and economic rights (Kismödi, Cottingham, Gruskin, & Miller, 2015), and restrictions associated with menstruation compromise these rights (Winkler & Roaf, 2014). Basic knowledge of menstruation and how to safely manage it is essential for establishing a foundation for healthy behaviors and decisions related to reproductive health, as well as empowering girls to access their reproductive rights (Population Council, 2015). It is also foundational to achieving equality and non-discrimination since menstrual challenges can compromise schooling, mobility, work, and other activities.

Despite the dearth of attention paid to girls’ experiences of menstruation within the reproductive health and rights agendas, the literature on girls’ perspectives about the challenges they face while managing menstruation is growing rapidly (Sommer, 2009; McMahon et al., 2011; Montgomery, Ryus, Dolan, Dopson, & Scott, 2012; Mason et al., 2013; Sommer, Ackatia-Armah, Connolly, & Smiles, 2014; Alexander et al., 2014). While girls’ perspectives reflect personal experiences rooted in place, these studies suggest common themes globally, themes that transcend high and low resource settings. A few examples illustrate. Adolescent girls living in the U.S. lacked adequate menstrual knowledge and felt unprepared for menarche (White, 2013; Herbert et al., 2016), while young girls and adults in Mumbai, India, agreed that girls lacked menstrual knowledge and experienced poor menstrual hygiene (Thakur et al., 2014). Similarly, girls in Tanzania reported inadequate guidance on menses management, and challenges associated with pursuing education in environments that lack adequate facilities, supplies, and gender sensitivity (Sommer, 2010). In Kenya, girls associated feelings of fear, shame, embarrassment, distraction and confusion with menstruation, which they linked to concerns of stigmatization by peers sometimes due to the perception that menstrual onset signals the advent of a girls’ sexual status (McMahon et al., 2011; Mason et al., 2015). Together, these findings call out for deeper understanding of girls’ experiences of menstruation, as well as expanded consideration of their implications.

In this study, we explore the challenges associated with girls’ experiences of menstruation in contemporary Ethiopia, and consider these challenges in the context of human rights agendas.¹ Ethiopia is one of the world’s poorest nations, and extreme poverty limits girls’ access to reproductive health education and services. As found in other settings around the

¹While we focus on girls and menstruation in this article, we recognize that not all girls menstruate, and not only girls menstruate. Sex and gender dichotomies reflect cultural imperatives not embodied realities. Variations in chromosomes, organs, hormones, identities, and more are masked by our simplification (Jenkins and Short, 2016; Short et al., 2013).

world, many girls in Ethiopia have limited material resources, including sanitary pads and other safe menstrual absorbents, particularly in rural areas (Erulkar et al., 2010; UNICEF, 2011). In addition, the gendered social institution of early marriage in much of Ethiopia limits girls' opportunities for schooling, skills acquisition, and the ability to claim their human rights, and decent livelihoods (Bruce & Erulkar, 2015; Mensch, Bruce, & Greene, 1998). It also has implications for early childbearing and maternal mortality (WHO, 2013).

Although the Family Code of Ethiopia, revised in 2000, explicitly states the minimum legal age for marriage is 18 and Ethiopia's Criminal Code revised in 2005 includes special provisions to punish perpetrators of early marriage, these laws are not always enforced (Marshall et al., 2016). According to the 2011 Demographic and Health Survey, approximately two thirds of women aged 25–49 were married by age 18 and about one third of Ethiopian women aged 25–49 had married before their 15th birthday (Central Statistical Agency of Ethiopia & IFC International, 2012). In the Amhara region, which is Ethiopia's second most populous, another recent census found that the median age at marriage among married women age 20–49 was 15.1 years old (Central Statistical Agency of Ethiopia & IFC International, 2012), representing one of the highest rates of early marriage in the world (Bruce, 2007).

Despite their youth, many new brides can be expected to take on marital demands, including expectations to demonstrate fertility (Bruce & Erulkar, 2015). They also are often expected to shift their focus from education to domestic life and motherhood (Erulkar, 2013). Married girls can also experience a rapid decline in their social networks, and reduced contact with friends (Bruce, 2015). This in turn leaves them with limited social support to cope with the rapid physical and psychological changes of puberty. The age at first marriage, however, is gradually increasing among women in Ethiopia. In 2000, the median age at first marriage among women aged 25–49 was 16 years, while in 2011 it had increased to 16.5 years (MEASURE DHS, 2013). In addition, the percentage of women who are married by age 18 decreased from 70% in 2000 to 63% in 2011, although the proportion of women who were married by age 15 showed little change (MEASURE DHS, 2013). According to Erulkar (2013), sixty percent of girls in Ethiopia who had married before age 15 had experienced first sexual intercourse prior to first menstruation, suggesting that many Ethiopian girls must simultaneously navigate sexual initiation, marital demands, and pubertal body changes all during the formative developmental stage of adolescence.

Overall, agendas that seek to assure girls' rights to health, education, and equality are undermined by the lack of attention to girls' menstruation. In this study, we use data from a comparative case study conducted in rural and peri-urban Ethiopia to illustrate the centrality of menstruation to such agendas. In so doing, we illustrate the complex interplay of social, economic, and reproductive contexts in which girls experience menstruation. Identifying girls' menstrual health knowledge and their perspectives on the obstacles they face may help health NGOs and education policy makers to better prepare girls for puberty, womanhood, and taking full advantage of their health and human rights.

Methods

Research Design

The study was conducted in the Amhara and Oromia regions, the two most populous regions in Ethiopia, comprising approximately 60% of the country's total population (Central Statistical Agency of Ethiopia, 2012). The research was conducted in one *woreda* (district) within each zone, which is a second-level subdivision of Ethiopia, below regions. The two districts, one rural and one peri-urban, were purposively selected based on average to low income and school quality, cooperation of local schools and organizations, and accessibility for the research team. Girls' experiences of menstruation may differ in urban areas and among the diverse cultures of Ethiopia.

The rural district represented an ethnically Amhara and religiously Ethiopian Christian Orthodox community with a total population of approximately 76,000 inhabitants (Central Statistical Agency of Ethiopia, 2012). The rural site is situated on the eastern edge of the Ethiopian highlands and represents a remote community with limited access to water, produce, and health and transportation services. The peri-urban site was a lively high-traffic location near the city of Harar with a bustling economy and a total population of approximately 140,000 individuals (Central Statistical Agency of Ethiopia, 2012). The majority of its inhabitants are from an Oromo ethnic and Muslim background.

Participants included 120 adolescent girls in and out of school aged 16–19 across the two sites. The girls were recruited through formal secondary schools and vocational training centers (the latter for out of school girls) with the assistance of school or center administrators. The population of girls reflects substantial diversity in terms of educational achievement, socioeconomic status, distance traveled to school or training center, and place of origin (urban vs. rural).

The aim of the study was to explore girls' experiences of menstruation and education within the family, the school, and the larger community.² The research team in the field sites included one American and one Ethiopian woman, both in their mid-20s and trained in qualitative research methodologies. The research team spent four weeks living in each of the two sites from 2011–2012.

In each site, four groups of in-school girls, and one group of out-of-school girls met one day/week for four weeks. Participatory methodologies were used to empower girls to voice their opinions and experiences, fostering open communication about 'sensitive' topics such as health, reproduction, and sexuality (Israel, English, & Schulz, 2000; Minker & Wallerstein, 2003). The findings discussed here are drawn from three select anonymous participatory activities conducted with eight groups of 15 girls (120 girls total) segmented by grade (nine or ten): (1) *menstrual narratives*: Girls were asked to write a one-page description of their first menstrual experience, describing how they felt, who they told or did not tell, what materials, if any, they used to manage their menstrual flow, and their advice for younger girls

²A sub-aim of the study was to develop content for the adaptation of a successful girls' puberty book from the Tanzanian context to the Ethiopian.

who had not yet experienced menstruation. (2) *puberty questions*: Girls were asked to write three questions they had about menstruation and puberty related topics. (3) *menstrual beliefs*: Girls were asked to write any beliefs related to menstruation that they had heard from adults or peers in their community. For all of the activities, each girl was provided with paper and pen and instructed not to include her name on any written materials to increase her comfort level in providing sensitive information. All of the participatory activities were conducted in safe, private locations including secure classrooms and meeting rooms at community centers at designated times exclusively for the girls' groups to further assure confidentiality.³

Approval to conduct the study was obtained from the Columbia University Medical Center (CUMC) IRB and the Federal Ministry of Education of Ethiopia. The Amhara and Oromia Regional Education Bureaus, the appropriate education bureaus at the *woreda* (district) level, and individual school and organization directors all formally approved the study. Informed consent was acquired prior to data collection. All documents were coded and no names or identifying information were recorded on materials.

Data Analysis

Grounded theory guided the analyses of multiple sources of data, including field notes and girls' responses to the participatory activities (Charmaz, 2006; Cresswell, 2007; Strauss & Corbin, 1998). The goal of using grounded theory was to establish an integrated set of conceptual hypotheses directly from empirical data (Glaser, 1998).

Open coding was used to identify appropriate categories and themes that emerged from the data (Emerson, Fretz, & Shaw, 1995). The systematic analysis began with a thorough reading of the field notes after each group session, followed by coding of all data collected. Codes were then grouped into similar concepts from which categories were formed. Social science researchers from local research centers and specialists on adolescent health and education working in government ministries, international agencies, and small non-governmental organizations in Ethiopia, as well as key informants (e.g. school administrators, teachers, parents, adolescent girls, and young women) from each of the sites, provided feedback on emerging themes and preliminary findings throughout the iterative analysis process.

For this paper, we report on three emergent themes that illustrate the relevance of menstruation to girls' rights. These include: 1) deeply embedded menstrual taboos which contribute to girls' shame, embarrassment, and lack of information about menstruation; 2) menstruation myths that associate menstrual blood with sex and diminish girls' sense of self, and put some at risk of abuse; and 3) social expectations connected to menstrual onset that promote a rapid transition to womanhood, including pressures to marry and restrict interpersonal interactions and movement. These themes illustrate the links between menstruation and girls' health, education, safety, and autonomy.

³In addition to participatory activities, data were collected through other methods: participant observation of classrooms, school grounds, community centers, and public spaces (e.g. markets and small businesses); archival review (e.g. school curricula, attendance records, and policy documents); and semi-structured in-depth interviews of adolescent girls and of adults with whom the girls interact in their daily lives (e.g. teachers, parents, health workers, religious leaders).

Results

Menstrual Taboos and Girls' Status, Education, and Health

Girls' rights to equality, education, health, and non-discrimination, keystones to the entire human rights framework, are compromised by deeply entrenched menstrual taboos in Ethiopia that stigmatize, stereotype, and marginalize girls. In their responses, girls frequently described menses as dirty, and menstruation as embarrassing and shameful. In the rural site, the local slang word *adef* – meaning dirty or unclean – was frequently used by girls during the participatory activities. In the peri-urban site, girls made similar references to menstrual blood as being dirty or unclean, but a specific slang word was not used. In both sites, girls also shared the private phrases or nicknames they used as code for menstruation when among friends. These included expressions such as “I am not clean,” “The dirt has come,” and “The hidden is here,” which illustrate girls' collective understanding that menses is unclean and should be kept secret. A related finding with broader societal implications was girls' reported perception that menstruation, given its polluting nature, was fundamentally related to girls' and women's lower status and gender inequality in Ethiopian culture. This idea was illustrated by a rural schoolgirl:

In our culture it is very taboo, so I did not tell anyone [when I first menstruated]. In this community, there is no democracy or equality for women. We even think that we women are lower than men. So I told no one.

This quotation highlights girls' vivid awareness of their inferiority or lower gender status in society, and its relationship to the stigmatization (both through others and internalized) of girls' and women's natural biological body functioning. Another rural schoolgirl emphasized how the taboo and stigma associated with menstruation creates an oppressive environment for girls and women in Ethiopia: “Because the community is not developed, if a women or girl says that she is sick because she has her period, they will be rude to her and show hatred. This is what we see.”

Given the strength of existing menstrual taboos and a fear of being stigmatized, a significant number of girls in both sites reported not having told anyone when they first began to menstruate. As described by a schoolgirl in the peri-urban setting, “When I first started menstruating, I felt very sick! At that time, I did not tell anyone because I thought it was embarrassing. It was very scary!” In addition, many girls in the rural site specifically reported concealing this information from their mothers because of the understanding that discussing menstruation is taboo even within the mother-daughter relationship. As a rural schoolgirl described:

I did not tell anyone in my family because I was too shy and embarrassed. My mother had not told me anything about menstruation. It is a taboo subject in our area...Even now she does not know whether I am menstruating or not. I am still too embarrassed to tell her.

Many girls reported receiving no guidance regarding menstrual onset or the management of menses, and attributed this absence of communication to their mothers' lack of formal education. Although formal education does not guarantee adequate menstrual health

education in any setting, girls perceived their mothers' lack of formal schooling as the reason for their inability or unwillingness to discuss menstruation with their daughters. This was illustrated by a rural out of schoolgirl's menstrual narrative:

I told my friend that I had started to menstruate because my mother did not tell me about it before. My mother did not tell me because she is uneducated and it is very taboo. Mothers do not usually talk about menstruation or puberty with their daughters.

Although some girls in both sites confided in their mothers, sisters, or friends and received comfort or guidance, a significant number of girls, particularly in the rural site, did not tell anyone that they had begun to menstruate, received no menstrual-related guidance, and experienced feelings of shame and embarrassment.

Given the lack of guidance received, it was not surprising to learn about girls' frequent experiences of shock, confusion and concern at the site of their first bleeding. As a girl in the peri-urban site described:

I was very shocked when I first menstruated. I did not know what was happening to me! The reason I did not tell [my family] was because I thought it was embarrassing.

In addition to experiencing feelings of shock due to lack of knowledge about menstrual onset, embarrassment because of social stigma and taboos regarding menstruation, and fear about their family's potential adverse reactions, many girls also perceived menstruation to be harmful to their health and believed that they were seriously ill at time of menarche. Excerpts from the menstrual narratives in both sites reveal this concern among girls:

The first time I did not know what it was called. I thought it was a disease.

When I first started menstruating, I thought I was bleeding because my blood vessels ruptured and I was very shocked... On the second day, I continued to bleed so I told my girlfriends. They thought that it was a disease so I went to the clinic.

The majority of girls in our study had no prior exposure to menstrual knowledge, and reported having experienced shock or fear at the time of menarche. Their lack of knowledge suggests they receive little guidance in school or family settings. These feelings were common at menarche, even among those girls who had previously learned about menstruation, reflecting the strength of local menstrual taboos and etiquette.

Menstruation-Sex Myths and Girls' Psychosocial Well-being and Safety

Girls' rights to health and safety are compromised by myths linking menstruation with sexual intercourse. Girls in both sites (with a stronger emphasis in the rural area) explained hesitating to share the onset of their menstruation with parents or guardians due to a concern that these adults believed that menstrual onset results from engaging in sexual intercourse. A large proportion of older generations of women were married before age 15, had sex for the first time before menarche, and may have experienced bleeding due to the breaking of the hymen or begun to menstruate shortly after first sex, and many associate the onset of menstruation with sexual intercourse. This perception has implications for girls' confidence,

self-esteem and their relationships with their parents during puberty. Girls hid their menstrual onset out of fear of their families' reactions.

As one rural schoolgirl explained:

In our village, grandmothers used to say that a girl menstruates when she has had sex with a man. I think this is because they got married when they were very young and started to menstruate after they were married. If a girl starts to menstruate [before marriage], they say that she is no longer a virgin and that she is a whore.

The link between menstrual onset, sexual intercourse, and early marriage among older generations and its severe consequences for girls was further illustrated by a rural out-of-school girl:

When you ask older women [about menstruation] they do not know the reason [menstruation occurs] because they were married when they were 12. They tell us that they experienced menstruation after they were married and ask us how it is possible that our menstruation has come [before marriage]. They make us suffer for this.

The common assumption that menarche is an individual deviant behavior for which girls are held responsible was further illustrated by the experiences girls shared during the menstrual beliefs activity. As one rural schoolgirl explained:

I knew that [my parents] would not accept me and would say that I had bad behavior. I could not tell them [that I had begun to menstruate] because they would say that I shamed the family and would shout at me.

The myth linking menstrual onset to sexual intercourse adds a complex layer to the challenges some girls face at menarche in Ethiopian society. The girls suggest that as age at first marriage has increased, the reordering of these two events (marriage and menarche) has created a vulnerability for girls at the time of menstrual onset, one that puts girls at risk of physical punishment, or emotional or verbal abuse.

In addition to emotional and verbal abuse, girls in both the rural and peri-urban sites wrote menstrual narratives that included experiences of physical violence by parents after their first menstruation was discovered. As two schoolgirls wrote:

One day my mother saw my stained clothes and said to me, "You started behaving badly already at this age?!" and she hit me. Then she told me that this only happens when you have sex with a man.

When I first menstruated my father saw me washing my underpants. I was very shocked and I did not say a word...He demanded an answer and picked up a stick to hit me...He said that menstruation happens only after a girl has had sex with a man... Then, he beat me and asked me to tell him who did this to me.

References to the menstrual myth regarding sex were not limited to parents and other older adults. As a rural schoolgirl described:

I was very close to my younger sister so I told her later that I had started menstruating. She asked how this happened.... She was in Grade Four at the time. She asked, “Who did you sleep with?”

Despite the persistence and intergenerational transfer of these menstrual myths, not all girls and their mothers believed that menarche and sexual relations are linked. One rural schoolgirl explained: “I didn’t tell anyone because I was very afraid. I did not tell my mother because many people in my area believe that a girl sees blood only after she has had sex with a man. I was afraid that my mother would think the same thing.” This quotation suggests that the girl understood this misconception to be false, yet still concealed information from her mother due to her perception of the community’s collective understanding of this menstrual myth. When this girl subsequently revealed her menstruating status to her mother, due to severe menstrual-related pains, she in fact received unexpected comfort and reassurance from her mother.

Although some older women and pubescent girls do reject the above described menarche-sex myth, many girls expressed anxiety and fear in both sites in the study, with stronger emphasis in rural areas, at the time of menarche. The findings also illustrate a current tension between girls’ efforts to navigate multiple understandings of menstruation.

Social Expectations: Menstrual Etiquette and the Restriction of Girls’ Roles and Behaviors

Social expectations and behavior restrictions associated with menstruation further compromise girls’ rights to equality. Most significantly, many girls voiced a concern that menstrual onset symbolized a girl’s readiness for marriage. As one rural schoolgirl described in the menstrual beliefs activity, “It is said that when a girl menstruates for the first time she is ready to get married.” Girls described feeling social pressure to get married at this time due in part to their newly realized fecundity and local social expectations to bear children. This pressure was described by girls in both the rural and peri-urban sites during the menstrual beliefs activity:

We hide from other people when we go to buy sanitary pads because we don’t want them to see us...If they know that a girl is menstruating, they say that she is ready to get married and have babies.

Our fathers tell us that girls are ready to get married after they start menstruating. Fathers force their daughters to get married.

Although the practice of early marriage varies between regions, and between urban and rural settings, these quotations suggest that despite recent increases in the legal age of first marriage, and governmental and non-governmental organizations’ efforts to eliminate the practice of child marriage, social expectations of marriage and childbearing at a young age remain pervasive in some regions of Ethiopia.

Many girls also reported behavioral restrictions once menstruation started, particularly in the peri-urban setting. An out-of-school girl described her perception of these during the menstrual beliefs activity:

It is not advised to talk to or play with boys while menstruating because this will make menstruation heavy. A girl should not tell other people that she is menstruating and should hide this information. A girl should not go outside of her house when she is menstruating. A girl will be more reserved, have more self-control, and stay at home more often than on other days.

As many girls in the peri-urban site further described, interactions such as walking, talking, or playing with boys or men while menstruating are considered harmful to girls' health, causing the menstrual flow to become heavy, and putting girls at greater risk of becoming pregnant. Girls both in and out of school in the peri-urban site explained: "They tell us not to sit with boys because sitting with boys while menstruating can get us pregnant" and "If a menstruating girl sits where a man has sat before she will get pregnant." Overall, this guidance serves to control girls' behavior at puberty, including assumptions about newly heightened sexual desires. However, cautioning girls to "not play" with boys is non-specific and is at odds with helping girls to feel empowered and understand their bodies.

Discussion

This comparative case study of girls' experiences of menstruation in present day rural and peri-urban Ethiopia provides a picture of the challenges girls face at menarche in Ethiopian society. The results indicate that girls in Ethiopia experience menstruation without adequate guidance on menstrual onset or menstrual hygiene management in the context of continuing strong menstrual taboos and myths, and widely held social expectations concerning the behavior and roles of menstruating girls.

These findings are consistent with the minimal but growing body of empirical qualitative literature on girls' experiences of menstruation across the globe including in Sub-Saharan Africa (Phillips-Howard et al., 2015; Caruso et al., 2014; Sommer, 2013; Crichton et al., 2013; McMahon et al., 2011; Piper Pillitteri, 2011; Sommer, 2010; Adinma & Adinma, 2008), Asia (Sommer, Ackatia-Armah, Connolly, & Smiles, 2014; Haver et al., 2013), and Latin America (Long et al., 2015; Long et al., 2013), which suggests that such challenges are all too common. The findings also reinforce the critical importance of capturing girls' own perspectives on the social, cultural and economic contextual factors directly affecting their lives. Girls' perspectives are essential to identifying strategies to manage menstruation with safety and dignity. Representing girls' voices directly is also consistent with scholarship in childhood studies that advocates for a participatory role for children so as not to subjugate their views (Hill, Davis, Prout, & Tisdall, 2004).

Although there were significant differences in the rural and peri-urban sites (e.g. religion, geography, ethnicity, income climate, and access to resources), the study findings suggest a similarity in girls' experiences of menstrual onset and subsequent menstrual management. In particular, cultural myths about menarche and menses persisted across both sites. Existing menstrual myths in both locations serve to limit girls' sexuality, and assure a socially prescribed and approved entrance into womanhood. A pervasive secrecy or silence around menstruation was also apparent in both sites, with girls in both the rural and peri-urban contexts revealing a significant gap in knowledge regarding the biological basis of

menstruation and the fundamentals of menstrual management. This silence circumscribes girls' abilities to access their reproductive rights and is detrimental to girls' sexual and reproductive health. This challenge is not unique to Ethiopia.

Menstrual taboos have been observed in many settings (Buckley & Gottlieb, 1988; Beyene, 1989; Delaney, Lupton, & Toth, 1988; Fitzgerald, 2001; McMahon et al., 2011; White, 2013; Sommer, Ackatia-Armah, Connolly, & Smiles, 2014; Herbet et al., 2016) including in low, middle, and high-income countries. Our findings suggest that girls growing up today in Ethiopia experience internal conflict as they navigate their sexual maturation in an environment with changing ideas about menstruation. In particular, as girls stay in school longer and marry later, they are menstruating before marriage, a pattern that was not common among older generations. Historically, the social and biological markers of womanhood, marriage, and first menstruation occurred concurrently for women in many regions of Ethiopia (Erulkar, 2013). This social condition, coupled with limited reproductive knowledge, may have created a belief that menarche is closely linked to, if not caused by, the onset of sexual activity. This illustrates an unintended consequence of social development that stigmatizes and marginalizes girls despite efforts to 'progress' socially (Sommer, 2009; Sommer, 2010). The linkages between social expectations and menstruation also highlight the deep overlapping connections between menstrual health and girls' rights to equality in society and families, to schooling, and to decent livelihoods. Girls' rights to equality and non-discrimination will be difficult to obtain without efforts to address the menstrual challenges they experience. Girls' access to menstrual hygiene and management is an indication of gender equality. It depends on equal access to sanitation facilities, accurate information shared by boys and girls and across generations, and participation from men and women across sectors and government ministries (Schechtman, 2015).

The in-depth, qualitative data collected and analyzed for this study yielded valuable data and compelling evidence for the relevance of menstruation to advancing human rights agendas. Girls' own words provide a window into not only what is happening in their lives, but also into how they experience it and make sense of it. While the findings that emerge are broadly relevant, we caution that the study's generalizability is limited, and these results should be interpreted with reference to the contexts from which they are drawn. Girls' experiences vary greatly across Ethiopia. These findings are based on data from girls purposely selected in two of Ethiopia's nine regions, and not from girls living in cities. The empirical literature would benefit greatly from additional "girl-centered" research on the nuances of their experiences of menstruation using qualitative and quantitative methods in different cultural and geographic contexts.

Results suggest that providing support to girls around menstruation would be inadequate without attention to the older generations. Education targeted to older generations about the natural biological process of menstruation might help to dispel menstrual myths and to promote the intergenerational transfer of accurate menstrual knowledge. The lack of guidance girls currently receive about menstrual onset and menses management exposes the need to engage in more efforts to prepare girls for the onset of menstruation within the family, school, or community settings. As the age of marriage gradually increases for younger generations in Ethiopia, girls can expect to navigate menstruation in the context of

new education and livelihoods opportunities. Tailored strategies to prepare young girls for menstruation may limit the feelings of shock, fear, embarrassment, and anxiety expressed by the majority of girls in our study.

The formal incorporation of menstrual guidance within primary school curricula, peer education programs, or health initiatives would expand girls' access to appropriate menstruation-related information, including for highly vulnerable populations such as married girls and school dropouts. Menstrual guidance could be integrated into the health extension worker program in Ethiopia, in which local high school graduates are recruited and trained to provide a range of community health services in primarily medically underserved and remote areas. Based upon the research conducted in these two field sites, a book providing basic, accurate puberty information and menstrual related guidance was developed, and subsequently approved by the Ethiopian Ministry of Education for distribution among 10–14 year old girls across the country.

The implementation of programs and policies aimed at effective instruction on menstruation and the inclusion of appropriate literature in schools and community programs for all students would help to close the gap of menstrual knowledge found among girls in our study and to promote menstrual awareness across genders (UNESCO, 2013; UNESCO, 2014). Literature should include language appropriate for the literacy levels of prepubescent girls in contrast to the complex English scientific jargon found in today's biology textbooks in Ethiopia.

Incorporating the needs that girls articulate into interventions and policies will give voice to a vulnerable population while tailoring health promotion strategies to the local context. Identifying local conceptualizations of menarche, the biological signal of fecundity, may also inform our understanding of reproduction in this setting. In addition, such in-depth information will broaden our understanding of dimensions of vulnerability in early adolescence for Ethiopian girls beyond that which is crudely measured in large-scale survey data. Most national censuses and demographic and health surveys fall short in identifying the causes and consequences of population indicators, including age at first marriage, age at sexual debut, and experiences of gender-based violence amongst adolescents; furthermore, most do not collect information from girls themselves. In-depth information from girls may also contribute to the design and implementation of contextually relevant interventions and policies in support of the rights of pubescent girls in Ethiopia by illuminating local understandings of menstruation and how these understandings inhibit girls' abilities to lead the lives they want. Local communities and non-governmental organizations may also contribute to advancing girls' rights and raising global awareness of the challenges faced by pubescent girls by submitting shadow reports to treaty monitoring bodies at the United Nations and other international institutions.

Overall, teaching girls about their menstrual cycle is essential to their understanding of the reproductive systems and to promoting fertility awareness, which although relevant on a global scale, may provide added benefits for girls living in communities with increased social pressure to marry and bear children at a young age. Furthermore, early instruction on menstruation for young girls worldwide can be used as a catalyst for the discussion of more

complex reproductive and sexual health topics including pregnancy prevention, sexually transmitted infections, and HIV/AIDS (Sommer, Sutherland, & Chandra-Mouli, 2015). The broader reproductive health and human rights community would benefit from incorporating menstruation into their overall approach to educating and empowering adolescents in low, middle, and high income countries and to understanding the multi-layered social context in which girls transition to womanhood. Such incorporation would also serve to advance rights agendas focused on sexual and reproductive health – upon which rights to equality, health, and well-being ultimately depend.

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