

What knowledge and expectations are Ethiopian girls bringing with them into parenthood?

Craig Hadley, Fasil Tessema, Tefera Belachew, and David Lindstrom

Abstract

Background. Because of rapid population growth, many countries now have very large cohorts of young people. Despite the population health importance of early child feeding practices, little work has explored the knowledge and expectations about infant feeding that youth bring with them as they transition into parenthood.

Objective. To examine adolescent girls' perceptions of infant and young child feeding practices in their communities, and to assess their knowledge and expectations regarding infant and young child feeding practices and explore their overlap with current feeding recommendations.

Methods. Cross-sectional data were obtained from a random sample of 1,018 girls 13 to 17 years of age living in rural, semiurban, and urban sites in southwestern Ethiopia. Surveys were used to collect information on respondents' attitudes, expectations, and perceptions within the domain of infant and young child feeding practices. Descriptive and bivariate statistics were used to describe the data.

Results. A total of 1,018 girls aged 13 to 17 years were interviewed. The girls were able to report the age at which infants in their communities were provided liquids, semisolids, and solids as well as the perceived duration of breastfeeding in their communities. The girls were generally able to report when they themselves planned to provide liquids and solids to their infants and their expected duration of breastfeeding. The girls' attitudes and expectations were not consistent with exclusive breastfeeding to 6 months, and planned durations of

breastfeeding were shorter than they currently perceived in their communities.

Conclusions. Young nulliparous Ethiopian women have well-formed attitudes and expectations about infant and young child feeding. These are unlikely to promote currently accepted best practices. Our results suggest both the potential that suboptimal feeding practices will be reproduced and novel intervention points.

Introduction

The global youth population, defined here as individuals 15 to 24 years of age, surpassed 1 billion in 2009 and is expected to reach 1.2 billion by 2050 [1]. Much of the global youth population is concentrated in developing countries, with individuals under 15 years of age comprising 30% to 40% of many populations [2]. As an example of this population phenomenon, Ethiopia's mid-2009 population estimate was 82.8 million, and 43% of the population was under 15 years of age [2]. The large size of the global youth population has led to increased interest in the health and well-being of the youth population. Major public health journals have devoted entire series to the issue of adolescent health [3], and there have been recent reviews of youth mortality [4] and adolescents' knowledge of HIV/AIDS and risky sexual behaviors [5, 6]. Less attention has been devoted to understanding what youth think about parenting and the care and feeding of children, despite the fact that most will go on to become parents. Infant and young child feeding (IYCF) practices are one set of caregiving behaviors and practices that can have an impact on infant and child growth and development. IYCF practices generally refer to the feeding of children between the ages of 0 and 23 months and describe the type of breastfeeding practiced and the type, timing, and frequency with which other foods are provided [7]. Various clinical, community-based, and attributable risk studies have shown that IYCF practices can be important determinants of health [8–10]. For instance, in their analysis of the approximately 10 million global

Craig Hadley is affiliated with Emory University, Atlanta, Georgia, USA; Fasil Tessema and Tefera Belachew are affiliated with Jimma University, Jimma, Ethiopia; David Lindstrom is affiliated with Brown University, Providence, Rhode Island, USA.

Please direct queries to the corresponding author: Craig Hadley, Department of Anthropology, Emory University, 1557 Dickey Dr., Atlanta, GA 30322, USA. e-mail: chadley@emory.edu.

child deaths in 2000, Jones and colleagues estimated that child mortality would have been reduced by 19% if 90% of infants had been breastfed until 11 months of age and had received appropriate complementary foods. In this paper we examine the hypothesis that attitudes and knowledge about parenting and child care are formed during childhood and adolescence. If supported, this would provide insight into the knowledge and expectations that youth bring with them into parenthood.

Currently the World Health Organization (WHO) recommends that children be exclusively breastfed until 6 months of age, at which time appropriate complementary foods should be introduced. Breastfeeding until at least 2 years of age is also recommended [7]. Exclusive breastfeeding is defined as feeding only breastmilk, with an allowance made for medicines and vitamin supplements, including oral rehydration solutions (ORS). Two other types of breastfeeding are also commonly recognized: partial and predominant. Predominant breastfeeding is defined as breastfeeding along with provision of nonmilk foods, and partial breastfeeding is defined as breastfeeding with provision of nonhuman milks and solid foods. These different types of breastfeeding are thought to confer different levels of protection against disease because of their impacts on macro- and micronutrient intake, the immunologic properties of breastmilk and colostrum, and the potential transmission of pathogens through nonbreastmilk liquids and solids [11].

Evidence from a number of clinical and epidemiologic studies shows that the low rates of exclusive breastfeeding are due in part to the introduction of prelacteal feeds [12]. Several studies have shown that infants who received prelacteal feeds face poorer health outcomes than those exclusively breastfed. Edmond and colleagues [13] have shown from work in Ghana that both the timing of initiation of breastfeeding and the type of breastfeeding are associated with neonatal mortality. In a sample of 10,947 infants, they found that infants who were predominantly breastfed had a 30% higher risk of neonatal mortality than infants who were exclusively breastfed, and infants who were partially breastfed had a risk of mortality 3.8 times greater than that of infants who were exclusively breastfed. Subsequent work suggested that the higher risk of death among partially breastfed infants was due to increased exposure to infectious diseases [14]. A recent study of 22,838 newborns in Nepal also showed that partial breastfeeding was associated with a relative risk of death of 1.77 times greater than that among exclusively breastfed infants. Importantly, these studies, and others, show that caregivers who are late initiators of breastfeeding (more than 1 hour after birth) also tend not to exclusively breastfeed [15].

Breastfeeding type is also associated with mortality in slightly older children. Bahl et al. [16] followed a large sample of infants from Peru, Ghana, and India

between 6 weeks and 6 months and assessed the association between type of breastfeeding and mortality. They found that partially breastfed infants were at a significantly higher risk of dying than exclusively or predominantly breastfed infants (hazard ratio, 2.5; $p = .001$). The evidence is very strong that early IYCF practices play an important role in ensuring the health and well-being of infants in developing-country settings. Consensus is also emerging that mother-to-child transmission of HIV through breastmilk is lower when an infant is exclusively breastfed to 6 months followed by rapid weaning than when an infant is partially or predominantly breastfed [17]. Thus, in developing-country settings, and for HIV-positive and -negative mothers, there appear to be sufficient benefits to recommend exclusive breastfeeding to 6 months. These benefits provide the basis for the WHO current international recommendations [7].

Although consensus has emerged among public health specialists on the optimal duration of exclusive breastfeeding, the duration of any breastfeeding, and the timing and type of complementary foods, these optimal practices appear to be rarely followed in many developing countries. It is estimated that 38% of infants under the age of 6 months are exclusively breastfed in developing countries, and in Africa the estimate is 25% [18]. The 2005 Ethiopia Demographic and Health Survey found that the median duration of exclusive breastfeeding was 2 months and that the introduction of complementary foods was delayed beyond 6 months for a substantial proportion of infants [19].

For caregivers to make decisions about IYCF practices that are consistent with currently recommended best practices, they generally have to have beliefs and knowledge of IYCF practices that overlap with those that would promote best practices in IYCF [20]. Alternatively, we could say that caregivers who hold beliefs that do not correspond to current international recommendations are at risk for engaging in IYCF practices that contribute to child undernutrition. Recent reports from the Bangladesh Child and Mother Nutrition Survey provide an example of this risk: only 30% of rural mothers knew the best duration of breastfeeding, and 39% knew the correct time to introduce complementary foods. It is hypothesized that the attitudes and knowledge of mothers were linked to the high levels of undernutrition in Bangladesh [21, 22]. The example of Bangladesh is not unique; many studies have examined knowledge and attitudes with regard to child-care practices [23–26], yet few studies have examined the origins of beliefs about infant feeding and breastfeeding, especially among those who are soon to be parents. In part there may be an untested assumption that mothers learn to parent once they are pregnant and learn to care for children through individual learning and/or direct teaching from older community members [27]. In fact, women of reproductive age and pregnant women

are often the target groups of programs designed to improve child health and well-being.

It is also highly plausible that children and youth learn normative child-care practices in their community as they grow and develop and interact with their environments. This explanation of infant feeding practices places the focus on the knowledge of children and youth, and not on women of reproductive age or grandmothers [27, 28]. Reviews of the worldwide engagement of children in child care show high levels of involvement [29], and reviews of ethnographic material on IYCF practices also demonstrate the tremendous capacity and engagement of children in child care [30]. Anthropologists who study childhood and adolescence in a cross-cultural context have also suggested that “the best time for girls to learn child-care skills is during these juvenile years” [31]. Youth are exposed to community practices and other sources of information that largely shape their beliefs before they even think about having children, and much learning is not direct learning but rather learning through observation and practice [32, 33]. Beliefs acquired during childhood and adolescence may structure the choices young adults make when they do become parents, although other factors will impact actual outcomes. As Dressler notes, there are cultural models and there is individual experience, and these together produce outcomes [34]. This “socialization” model of infant feeding practices is consistent with anthropologists’ ideas about how people learn to live in their own cultures—they learn through observation and practice [32]. In communities where social life takes place in the open, where children and young adults engage in substantial amounts of child care, and where breastfeeding is not stigmatized, children and young adults will have participated in and observed hundreds if not thousands of hours of child care. Such a pattern of social interactions may lead to entrenched ideas about how children should be fed and cared for.

This socialization model suggests that long before they actually plan to have children, adolescents have plans or expectations about IYCF and that they are aware of the patterns that predominate in their communities. These patterns enable youth to form inferences about how to feed children, which they may draw on when they become parents. In this study, we assess various pieces of the model, including adolescent girls’ perceptions of their community’s IYCF behaviors, their own IYCF attitudes and expectations, and how these vary according to place of residence. Answers to these questions have implications for interventions and for the IYCF practices of the next generation of parents.

Methods

The data for this study come from a longitudinal study

of youth in Jimma Zone, southwestern Ethiopia. The Jimma Longitudinal Survey of Youth is an ongoing study based on a population-representative sample of youths who were 13 to 17 years of age at the start of the study in 2005/6. The study population occupies three diverse agroecological zones and includes urban, semiurban, and rural settings in and around the city of Jimma. The city of Jimma, three nearby small towns, and the rural areas around each town were purposively selected to represent a range of ecological and development contexts. An aim of the study was to investigate the determinants of health and well-being among youth in a low-income, high-mortality setting. In each area, households were randomly selected from complete household lists that were compiled through a house-by-house enumeration in the urban area by the study team, and that were maintained and provided by the local administrative authorities in the semiurban and rural areas. In each selected household, one adolescent male or one adolescent female was selected for inclusion in the study. In households with two or more eligible youths, a random selection process was used to select one female and one male. Face-to-face survey interviews were conducted by a team of trained interviewers who spoke Amharic (the predominant language in the urban areas) and Afan Oromo (the predominant language in the rural areas) and who were familiar with the study area. The interviewers were provided extensive pretest training, and were matched with the respondents by sex. All youth and their parents gave their consent, and study protocols were approved by Jimma University and Brown University. Analysis was carried out on de-identified data.

At the time of enrollment (2005/6), the subjects were between the age of 13 and 17 years. For these analyses, we examined the attitudes and expectations of girls only, although boys were asked to think about how they expected or anticipated that their children would be fed. The survey questionnaire included questions about age, fertility preferences, educational aspirations, and child feeding and rearing practices. Specific to the analyses here, the girls were asked how many children they thought they would have in their lifetime. We used responses to this question to assess the extent to which the girls actually planned to become parents.

To assess the adolescent girls’ attitudes and expectations regarding IYCF practices, the questionnaire asked, “How old will your child be when you give him/her the following items for the very first time?” The items were water, butter, cow’s milk, and adult foods. The girls were also asked, “For how long will you breastfeed your baby?” “For how long do women in this community breastfeed their infants?” and “When do they provide infants liquids and solids for the first time?” The answers to all questions could be given in days, months, or years, but the responses were recoded into months for the analysis presented here.

The analysis centers on describing the distribution of responses in the community and individual responses to the questions about IYCF practices. In most instances, we present the median of the distribution and then summarize a new variable that indicates whether a respondent's response was above or below the community median. Where relevant, we also report the percentage of individuals who provided responses above or below internationally recommended feeding ages.

For each question, we calculated the prevalence of nonresponses, and when these exceeded 5% of the sample, we ran a logistic regression to assess whether the data were missing at random or whether individuals with specific characteristics were more or less likely to give a response. We used the chi-square test to test whether the girls varied in their perceptions and expectations by place of residence, coded as urban, semiurban, and rural. The Spearman correlation test was used to examine whether the girls' perceptions of community feeding practices were associated with their own expectations about child feeding. Finally, using the data available on youth expectations, we calculated the extent to which current expectations, if acted upon faithfully, would result in exclusive breastfeeding to 6 months of age, predominant breastfeeding to 6 months, or partial breastfeeding to 6 months. All analyses were carried out in SAS.

Results

The final sample included 1,018 girls with a mean age of 14.1 ± 1.3 (SD) years and a median age of 15 years. A large majority of the respondents (91%) were still in school at the time of the survey. The sample was divided between the urban city of Jimma (38%), the three smaller semiurban towns (28%), and the outlying rural sites (34%).

Fertility preferences

Fifty-one percent of the girls said that they would like to have two children in their lifetime, 21% said that they wanted three children, and 22% reported desiring more than three children. Less than 1% of girls reported desiring no children, and less than 4% reported desiring one child. Thus, virtually all girls desired to give birth to at least one child. An important public health issue is how these future caregivers plan to feed and care for their children.

Perceptions of community IYCF practices

Age at first receiving nonhuman milks

Nearly all of the girls (93%) provided a numeric response to the question of when caregivers in their

community begin to provide nonhuman milks to infants. Among responders, 30% reported that infants were consuming nonhuman milks by 4 months, and 70% reported that infants were consuming nonhuman milks by 6 months. Girls in rural (37%) and semiurban (41%) areas were more likely than girls in urban areas (23%) to report the provision of nonhuman milks before 6 months of age ($p < .001$).

Age at first receiving solid foods

A large majority of the girls (93%) responded to the question about the age at which infants in their communities begin receiving solid foods; 16% reported an age of less than 6 months and 61% reported an age of less than 12 months. There were no differences between girls residing in different areas in the percentages reporting an age of less than 6 months ($p = .68$) or reporting an age of less than 12 months ($p = .63$).

Duration of breastfeeding

Only 3% of the girls did not provide a numeric response to the question of how long mothers usually breastfeed in the community. Less than 10% reported a perceived duration of breastfeeding of less than 12 months, 23% reported 12 to 23 months, and 68% reported 24 months or greater. There were differences in perceived duration by place of residence ($p < .001$). Semiurban girls were somewhat more likely to report a perceived duration of 12 to 23 months, whereas relatively more urban and rural girls reported a perceived duration of at least 24 months.

Reasons why mothers might stop breastfeeding

When the girls were asked why some mothers might stop breastfeeding early, one-third answered that the mother became pregnant, another one-third that the mother had insufficient milk, and one-fifth that the mother had health concerns. The only other reason given by more than 2% of the girls was that the mother took a job or did not have enough time for breastfeeding, which was mentioned by 4% of the girls. The girls were also asked for a second reason mothers might stop breastfeeding early. Maternal health concerns were mentioned by 28% of the girls, followed by the mother having insufficient milk (17%) and that the mother took a job or did not have enough time for breastfeeding (16%).

Attitudes and expectations about child feeding

Expected duration of breastfeeding

Virtually all girls (98%) provided a numeric response to the question about their planned duration of breastfeeding. Among these responders, 32% reported a planned duration of less than 12 months, 30% reported a duration between 12 and 23 months, and 37% reported durations of 24 months or greater. Urban

and semiurban girls were more likely than rural girls to report a planned duration of less than 1 year ($p < .0001$).

Expected age at first introduction of water

Three-quarters (75%) of the girls reported an expected infant age at first introduction of water, whereas one-quarter (25%) of the girls responded "don't know" to the question. Knowing (or not knowing) an expected age at first introduction of water was not significantly associated with place of residence, age, years of education, or household wealth. Among the girls who provided an expected age, 56% reported that they would provide water to their infant by 1 month of age and 75% that they would provide water to their infant by 5 months of age. In other words, three-quarters of the sample planned to provide water by 5 months of age, with a majority indicating that this would occur before 1 month of age.

Expected age at first introduction of butter

Seventy-two percent of the girls reported an expected infant age at first introduction of butter, and 28% responded "don't know." Because the early provision of butter is largely a rural custom, responses to this question varied by place of residence: 34% of urban girls responded "don't know," as compared with 27% of semiurban girls and 19% of rural girls ($p < .01$). Among respondents who reported an expected age, more than half (54%) reported an age of 4 months. In the rural areas, 64% of girls who provided an expected age reported an age of 4 months, compared with 48% of semiurban respondents and 54% of urban respondents ($p < .01$).

Expected age at first introduction of nonhuman milks

The girls were more certain about the age of first introduction of nonhuman milks; less than 5% of the sample said they did not know when they would introduce nonhuman milks. Rural girls were less likely to respond "don't know" than urban and semiurban girls ($p < .01$). Among girls who reported an expected age, 56% reported an age of 4 months and nearly 100% reported an age of 1 year. There were important differences in expected age at introduction of nonhuman milks by place of residence: 48% of urban girls planned to introduce nonhuman milks by 4 months, compared with 56% of semiurban girls and 66% of rural girls ($p < .01$).

Expected age at first introduction of adult foods or semisolids

Virtually all girls (95%) reported an expected infant age when they would introduce adult foods, with less than 5% responding "don't know." Nearly two-thirds of the girls who provided an expected age reported that they planned to introduce adult foods by 1 year

of age, and 16% planned to introduce adult foods at or before 6 months of age. Among urban respondents who reported an expected age, 61% said they would introduce adult foods at 1 year or more, 25% reported an age of 6 to 11.9 months, and 14% reported before 6 months of age. The responses of rural and semiurban girls to this question were very similar: 75% reported a planned introduction at 1 year or greater, 18% at between 6 and 11.9 months of age, and 7% at prior to 6 months of age. The responses of urban girls were significantly different from those of rural and semiurban girls.

Correlations between youth feeding plans and perceptions of community feeding patterns

Statistically significant correlations were observed between girls' perceptions of the age when mothers in their community began providing liquids and when they themselves planned to introduce water (Spearman $r = 0.19$, $p < .0001$) and cow's milk or other liquids (Spearman $r = 0.35$, $p < .0001$). Girls who perceived a later age at introduction of solids at the community level also reported that they expected to initiate solid foods to their own children at a greater age (Spearman $r = 0.40$, $p < .0001$). There was also a positive correlation between girls' expected duration of breastfeeding and their perception of the duration of breastfeeding in their communities (Spearman $r = 0.32$, $p < .0001$).

Exclusive, predominant, and partial breastfeeding before 6 months of age

Among the girls who gave a numeric response to all questions about feeding expectations ($n = 672$), 9% planned to exclusively breastfeed until their infants were 6 months of age, 8% planned to predominantly breastfeed, and 73% planned to partially breastfeed. Urban girls (12%) and semiurban girls (11%) were more likely to report that they expected to exclusively breastfeed until 6 months than were rural girls (6%; $p = .04$). A similar pattern by place of residence was observed for predominant breastfeeding: 25% of urban girls had expectations consistent with predominant breastfeeding, compared with 18% of semiurban girls and 9% of rural girls ($p < .0001$).

Discussion

We examined girls' expectations in the domain of IYCF practices by asking them how they thought children were fed in their communities and how they themselves expected to feed their children. The logic behind this study was fourfold: 1) IYCF practices are important contributors to population health; 2) in many communities, these practices deviate substantially from "best practices," and 3) prospective parents are likely

to partially form their expectations of infant feeding practices based on what they observe in their communities when they themselves are young, which may lead to 4) the reproduction of suboptimal child feeding practices. Given that there are more adolescents than ever before, we examined whether girls have internalized community practices and whether they have expectations about how they will feed their children, once they have them. On the basis of our findings, we suggest that a viable strategy for improving community IYCF practices is to target girls with information about best feeding practices at ages when they are forming their expectations about IYCF practices.

Our results indicate that girls have indeed thought about, and in many cases have internalized, cultural models of IYCF practices. The results show that the vast majority of girls are able to report clear expectations about the duration of breastfeeding and an infant's age at the time of introduction of a variety of foods. The prevalence of "don't know" responses was relatively low and varied with the visibility or salience of the specific feeding practice. For instance, urban girls were more likely than rural girls to respond "don't know" to the question about when butter should be introduced. This is consistent with the lower prevalence of feeding butter to infants in urban areas than rural areas. We would expect urban girls to be less likely than rural girls to report an expected age at introduction of butter, because they are less likely to have observed the practice. Similarly, a greater proportion of girls replied "don't know" to the question about when they expected to introduce water, because water is often given in the early days after birth, and therefore the first introduction of water is less visible than the first introduction of solid foods. In general, the level of "don't know" responses is highest for infant feeding practices that occur around the immediate postpartum period or that are not common in a girl's community.

These results suggest that the large population of youths who plan to become parents are entering into parenthood with attitudes and expectations about IYCF practices. The results we report here correspond closely with those of another study on this population using a very different set of questions around IYCF practices [35]. Those data also showed a high prevalence of attitudes that would seem to promote suboptimal IYCF practices.

The girls also seem quite cognizant of community IYCF patterns, which they perceive as marked by a long duration of breastfeeding. This perception appears to match other data on breastfeeding practices. The 2005 Ethiopia Demographic and Health Survey reported that the median duration of breastfeeding in rural and urban areas was 25 months, with a slightly longer duration in rural areas. This long duration is closely matched by girls' perceptions of the duration of breastfeeding in their communities. Two-thirds of the girls

said that the duration of breastfeeding in their community was greater than 24 months. Reports from girls of their own expected duration of breastfeeding suggest that the next generation of Ethiopian children may be breastfed for a shorter period: although only 10% of the girls said that their community breastfeeding duration was 0 to 11.9 months, 32% said that they planned to breastfeed for 0 to 11.9 months. More than two-thirds of the girls said that most mothers in their community breastfed for more than 24 months, but only around one-third of the girls said they would breastfeed for this long when they had children

Only 16% of the girls reported that infants in their community were consuming adult foods at 6 months of age, and nearly two-thirds of the girls reported that infants in their community were consuming solid foods by 1 year. The reported level of consumption of solid foods at 6 months is below the national level reported in the 2005 Demographic and Health Survey, which found that "At 6–8 months, only one in two children is receiving complementary foods." Regardless of how accurate their perception may have been, the reported perception is correlated with the ages at which the girls reported they expected to introduce solid foods when they became parents.

The girls' perceptions about the timing of IYCF in the study area are consistent with suboptimal feeding behaviors. More than half of the girls who reported an expected age for introducing water stated that they would provide infants water by 1 month of age, and 75% planned to give water by 5 months of age. Approximately half of the respondents who reported an age at introduction of butter planned to give butter and/or nonhuman milks before 6 months of age. Together these practices would erode exclusive breastfeeding, which is why only 9% of the girls had plans that, if acted upon faithfully, would lead to exclusive breastfeeding up to 6 months, and most (73%) had plans that were consistent with partial breastfeeding. The low prevalence of exclusive breastfeeding and the high prevalence of early introduction of other foods is of public health importance, because exclusive breastfeeding is associated with lower infant and child mortality and partial breastfeeding is associated with higher mortality. It is therefore of concern that the cohort of girls represented in this study is entering into adulthood and parenthood with ideas about IYCF practices that promote poor health outcomes. It is also disconcerting that the girls in this study are planning shorter durations of breastfeeding than what they believe prevail in their communities. Together these data suggest that an intergenerational deterioration of duration and type of breastfeeding may occur.

We have shown that the girls have plans for feeding their children that, if enacted faithfully, would not lead to currently accepted best practices. It is worth asking what is the evidence linking individuals' perceptions

and plans with actual IYCF practices. Several studies have examined the association between breastfeeding plans and outcomes, primarily in developed countries. The conclusions generally show that prenatal child feeding attitudes and expectations predict postnatal practices [36]. For example, Chezem and colleagues [37] studied breastfeeding plans and actual feeding outcomes among 74 first-time mothers in the United States. They report a significant effect of IYCF plans on actual outcomes: mothers who planned to exclusively breastfeed their infants had a longer duration of feeding and were more likely to meet their breastfeeding goals than those mothers who planned to introduce foods and liquids early. Donath et al. [38] reported the results of a study of nearly 11,000 mothers in the United Kingdom. That study showed that prenatal intentions to breastfeed were associated with both the initiation of breastfeeding and the duration of breastfeeding [39]. Further, studies by Donath et al. and by others have shown that the timing of one's decision to breastfeed is important as well [40–42]. Mothers who plan to breastfeed prior to becoming pregnant are likely to breastfeed for longer than are women who decide to breastfeed during pregnancy. Although these studies have been carried out in developed-country settings and focus on the initiation and duration of breastfeeding, it is possible that they extend to other aspects of IYCF practices and to those in developing countries.

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Conclusions

We conclude by stating that the girls in this sample of Ethiopian adolescents have well-formulated plans for IYCF practices. The vast majority plan to have at least one child. If acted upon faithfully, the plans and expectations that these girls have will produce IYCF practices that are suboptimal in the sense that they will lead to an early cessation of exclusive breastfeeding, which has been shown to be linked to higher child mortality. We suggest that novel programmatic strategies that target girls before they have children and aim to increase knowledge of optimal IYCF practices might be usefully employed.

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