

Lifting the Curtain on the Conditions of Sexual Initiation among
Female and Male Youth in Ethiopia

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Extended Abstract

Research on the presence of partner pressure and coercion as a condition of sexual initiation among young people tends to focus on females. Little is known about the conditions of first sex among male youth, especially in sub-Saharan Africa nations. In this paper we examine the conditions of first sexual intercourse among female and male youth ages 13 to 24 using data from a survey on romantic relationships and sexual knowledge conducted in southwestern Ethiopia. The survey incorporated the use of an experimental non-verbal response card to record responses to sensitive questions regarding sexual behavior and attitudes. Our results reveal that feelings of being pressured into first sex and forced first sex are experienced by both female and male youth, and that such experiences are likely to be significantly underreported in conventional face-to-face verbal interviews.

Study Site

Data for our study come from the Gilgel Gibe Social and Sexual Relationship History Survey, conducted in 2006 by investigators from Brown University and Jimma University (a large regional university in southwestern Ethiopia). The survey collected information on the formation of romantic relationships and the transition into sexual activity for adolescents and young adults ages 13-24 years. The sample for the survey was drawn from the Gilgel Gibe Demographic Surveillance System (DSS), which incorporates rural communities and small urban centers in the immediate areas surrounding the Gilgel Gibe dam, Jimma Zone. The area is approximately six hours driving time on a paved road to the southwest of the capital city, Addis Ababa, and has a population of approximately 45,000. The Gilgel Gibe DSS was established in 2005 by Jimma University to monitor the changing health and demographic status of the study population, and to evaluate the impact of health program interventions and economic and social

development projects. The Gilgel Gibe Social and Sexual Relationship History Survey randomly sampled 1,300 youth from the approximately 8,900 households in the Gilgel Gibe DSS.

The adolescent and young adult respondents in the Gilgel Gibe Social and Sexual Relationship History Survey were interviewed at home, but in a location in the residence or residential compound where they were alone. Female interviewers were used with female respondents and male interviewers with male respondents. The interviewers were fully conversant in the two dominant local languages (Amharic and Afan Oromo), and versions of the questionnaire were prepared in both languages. The questionnaire collected information on contact with health services, food insecurity, aspirations, attitudes regarding gender relations, HIV knowledge, and information about the last four romantic relationships, including information on the background characteristics of each partner and the nature of intimate physical and sexual contact between the partners. Respondents were also asked about the conditions under which first sexual intercourse occurred, knowledge and use of condoms, perceptions of HIV risk, and attitudes regarding the appropriateness of premarital sex. Sensitive questions regarding sexual behavior and knowledge were asked at the end of the interview. Data entry was conducted using a double-entry system to ensure maximum accuracy.

Non-Verbal Response Method

A major concern of the investigators in launching this study was that sensitive questions about sexual behaviors would be subject to considerable response bias in this largely rural, Muslim population. To address the issue of reporting bias, the authors developed an innovative response method called the non-verbal response card. This new method uses a response card that allows the respondent to non-verbally and confidentially communicate responses to questions read by the interviewer.

The response card is an $8\frac{1}{2} \times 11$ inch laminated sheet of heavy stock paper with a respondent side and an interviewer side. Each side is divided into 35 cells (5 rows and 7 columns) with a small hole punched through the center of each cell. On the respondent side of the card, the cells contain written and color coded responses (see Figure 1). The numeric responses range from 0 to 25 (for the number of sexual partners and age at first sex), and the non-numeric responses are Yes, No, and does not apply. The numeric responses are indicated by both a written number and vertical bars (for example, || for 2, and ||||| ||||| for 10). The non-numeric responses are written in the two local languages and are color coded, green for Yes, red for No and blue for does not apply. Each cell on the interviewer side of the card contains a unique three-digit number. The number of cells and response options provided on the card are survey specific, and can vary across questionnaires or question sets within questionnaires, permitting the use of the card for a variety of topics and study populations.

The card is held by the respondent with the respondent side visible only to the respondent and the interviewer side visible only to the interviewer. The respondent indicates his/her response to a question by inserting the point of a stick that is provided through the hole in the appropriate response cell. The interviewer records the three digit number in the cell on the interviewer side of the card through which the point of the stick is protruding. To ensure that the interviewer does not recognize a response based on the position of the response cell, a total of 20 response cards were prepared, in which the order of the responses on each card varies (but the response set remains the same), and the three digit number assigned to each response is different. There are also multiple Yes, No, and does not apply response cells on each card so that the respondent is not repeatedly using the same cell for Yes or No on any single card.

The three digit numbers are randomly assigned to the 35 possible responses with a total of 20 unique numbers (corresponding to each of the 20 cards) assigned to each response. The three digit numeric codes are recoded to their corresponding response after the data have been entered into computer readable data files. The 20 response cards are divided into two sets of ten cards each, an A set and a B set. On a given day an interviewer is provided an A or a B set. At the start of the sensitive section of the questionnaire, the interviewer presents the respondent with an envelope with 10 response cards inside. The respondent is instructed to pull out the cards and inspect them while the interviewer explains how to use the cards and how the cards are designed to preserve the confidentiality of the respondent's responses. The interviewer uses a demonstration card that has only two rows of cells with examples of the numeric and non-numeric response cells. The interviewer uses the demonstration card to show the respondent how the card is used, and to remind the respondent throughout the course of the interview that green is for Yes, red is for No, and blue is for does not apply. The respondent is instructed to hold onto any one of the cards and to set the other cards down. At any point during the interview the respondent can change cards if he/she wishes. At the end of the sensitive portion of the interview, the respondent is instructed to place all of the response cards back into the envelope in any order.

The number of response options on a single card can be reduced to lessen the cognitive demands on the respondent, and a variety of different card types can be used during the course of an interview for different response sets (e.g., Yes/No, ordinal rankings, numeric responses). The nonverbal response card does not require the respondent to be literate, although it does require basic numeracy. The low-tech and lightweight nature of the cards makes them ideal for use in rural areas in low-income countries.

Figure 1. Non-Verbal Response Cards

(a) Side Facing Interviewer

963	238	631	842	479	420	292
938	105	669	351	691	675	888
539	634	988	410	192	881	561
467	889	912	632	359	745	433
743	317	705	898	590	986	871

(b) Side Facing Respondent

13	14	15	16	17	18	19
20	21	22	23	24	25	•
አዎ Eeyyee	የለም Lakki	•	0	1	2	3
4	5	6	7	8	9	•
10	11	12	•	•	አዎ Eeyyee	የለም Lakki

393	756	168	547	204	706	353
191	660	785	297	672	990	928
522	176	906	737	374	935	109
789	278	878	818	283	980	492
568	248	551	178	879	983	153

0	1	2	አዎ Eeyyee	የለም Lakki	3	4
አዎ Eeyyee	የለም Lakki	•	5	6	7	•
•	8	9	10	11	12	13
14	15	16	17	18	19	20
21	•	22	23	24	25	•

(Note: • represents hole in the card for response stick; cells on the respondent side with • alone are colored blue and are used for “does not apply” (e.g., age at first sex for respondents who have never had first sex); cells with the word “Eeyyee” and its Amharic equivalent are colored green and are used for “Yes”; cells with the word “Lakki” and its Amharic equivalent are colored red and are used for “No”; the valid range of numeric responses for the questions was 0-25 and was specific to the survey questionnaire for which the cards were tested and used. There are a total of 20 distinct cards, each of which has the same response set, but in a different order on the card and with a different set of unique three digit codes.)

Application of the Response Card Method

The survey questionnaire and non-verbal response cards were first pre-tested with 202 randomly selected adolescents in an urban community in the Gilgel Gibe study area. The interviewers received one week of intensive training prior to the pre-test, and they received an additional week of training with the final version of the survey questionnaire and non-verbal

response cards prior to beginning the actual survey interviews. The interviewers quickly grasped the concept and use of the cards, and reported that respondents easily understood the response procedures and were comfortable with the cards.

Following the pre-test, the non-verbal response cards were randomly assigned to one-half of the full study sample in advance of interviewing. Table 1 presents selected sample characteristics for the respondents who provided verbal responses and for respondents who used the non-verbal response cards from both the full survey and the pilot survey. The distributions of sex, education, marital status, place of residence, religion, and ethnicity are virtually identical for the two groups within each survey. This comparison provides confirmation of the randomization of the response method: the two groups are comparable in size and indistinguishable from one another with respect to key social and demographic characteristics.

Interviewers were required to use the non-verbal response cards for the sensitive portion of the questionnaire with the youth who were assigned the non-verbal response card (experimental group), and they were required to use the conventional verbal response method with the other one-half of the sample (control group). The sensitive portion of the survey included 50 questions on sexual behavior, knowledge, and attitudes. Two separate questionnaires were prepared: one for those assigned to the card method and one for those assigned to the verbal method. The questionnaire for use with the cards included instructions to be read by the interviewer on how to use the card for each question. It did not include any skip instructions for the sensitive portion of the questionnaire because the interviewer did not know the respondent's responses to earlier questions. However, respondents were told to point to any of the solid blue squares if the question did not apply. For example, when asked how old they were at the time of first sexual intercourse, respondents were told "If you have never had sexual intercourse point to

any of the blue squares.” The questionnaire used with the verbal responses included skip patterns for questions that were not applicable based on earlier responses. In all other respects, the two questionnaires were identical.

Each interviewer conducted interviews using both methods to reduce the potential influence of interviewer effects on differences in reporting generated by the two methods. This randomized control trial design provides the data needed to assess the effectiveness of the non-verbal response cards in reducing bias in the reporting of risky sexual behaviors for the respondents overall, and for key subgroups in the population. To the extent that the response cards are effective, this study will provide estimates of at-risk sexual behaviors in the study population that are less biased than estimates derived from conventional verbal responses.

Results

The questionnaire included a series of questions regarding the conditions of first sexual intercourse. Among respondents who used the verbal response method, those who responded no to an earlier question on ever had sexual intercourse were skipped out of the questions on conditions of first sex. Respondents who used the non-verbal response cards were asked all the questions regarding conditions of first sex irrespective of their response to the question on ever had sexual intercourse because the interviewer did not know their response. Non-verbal card respondents were instructed to point to any of the blue squares if they had never had sexual intercourse. In this paper we pool sexually experienced youth from the pilot and full surveys to increase our statistical power. The response patterns by gender and response method were very similar across the two surveys, although the levels of sexual experience were higher in the pilot survey due to the urban character of the sample. The pooled sample contains 201 verbal respondents and 205 non-verbal respondents.

Table 2 presents the conditions of first sexual intercourse by response method. Youth who used the card method were significantly more likely to report feeling pressured by their partner or friends to have sex than youth who provided verbal responses. The effect of the response method is especially large for reports of being raped or having first sex for money or some other gain. Four percent of youth who gave verbal responses reported being raped at the time of first sex compared to 8.8 percent of youth who used the card method. Reasons for first sex, such as love, pleasure, or being married were reported at similar levels by verbal and card respondents. Respondents were also asked if they put a lot or some pressure on their partner at the time of first sex. Similar to the case of feeling pressured, youth who used the card method were significantly more likely to report putting pressure on their partner than youth who provided verbal responses.

In Table 3 we stratify the sample into female and male respondents to determine whether the conditions of first sex and the patterns of response bias vary by gender. Male youth who used the non-verbal response card report levels of pressure and rape that are approximately similar to those reported by female youth who used the card method. The response effect, however, is larger and more significant among males. This result is consistent with the greater stigma among males compared to females of being pressured into sex. Another striking result is the gender difference in the response effect on reports of putting pressure on a partner at the time of first sexual intercourse. While female youth are less likely than male youth to report putting pressure on their partner to have sexual intercourse, the response effect is only significant for female youth. Female respondents are much more likely to admit pressuring their partner to have sex when using the non-verbal card method compared to the verbal response method.

Discussion

Our results reveal that many male youth feel pressured to have first sex, and a small group report being forced to have sex. Because these conditions of first sex are highly stigmatized for males, they are unlikely to be reported in surveys that use conventional verbal responses. Because the majority of the young people in our sample had not yet experienced first sex by the time of the survey, our estimates of the prevalence of the different conditions of first sex are not likely to be accurate estimates of what will eventually be experienced by the full sample of youth. Nevertheless, our results reveal that estimates of pressured or coerced sex derived from conventional demographic surveys are downwardly biased, especially in the case of male youth.

Table 1. Selected Sample Characteristics by Response Method, Gilgel Gibe Social and Sexual Relationship History Survey and Pilot Survey 2006, Youth Ages 13-24, Southwestern Ethiopia.

Selected respondent characteristics	Full survey		Pilot survey	
	Verbal response %	Card response %	Verbal response %	Card response %
Male	51.0	50.9	56.7	52.0
No school	35.5	35.2	22.3	14.3
Some school (1+ years)	64.5	64.8	77.7	85.7
Never married	76.1	76.1	79.8	84.7
Urban	23.9	25.2	100.0	100.0
Rural	76.1	74.8		
Religion ^a				
Muslim	88.6	87.9		
Orthodox Christian	10.3	11.5		
Other Christian	1.1	0.6		
Ethnicity ^a				
Oromo	88.2	90.7		
Amhara	3.3	2.5		
Yem	3.3	3.5		
Other ethnicity	5.2	3.3		
Number of observations	(633)	(636)	(104)	(98)

Table 2. Reported Reasons/conditions of First Sexual Intercourse by Response Method, Youth Ages 13-24 who have ever had Sex, Gilgel Gibe Social and Sexual Relationship History Survey 2006, Pooled Samples, Jimma Zone, Ethiopia.

	Response Method			
	Verbal %		Card %	
The first time you had sexual intercourse, did you do it:				
Because your partner pressured you?	11.9	*	18.5	(1.55)
Because your friends pressured you?	8.5	**	15.1	(1.78)
Because you were raped?	4.0	**	8.8	(2.20)
For money, to get a good grade in school or for some other gain?	2.0	**	5.9	(2.95)
To show your partner you loved him/her?	34.8		30.7	(0.88)
To experience sex?	15.4		14.6	(0.95)
For pleasure?	39.3		37.1	(0.94)
Because you were married	74.6		65.9	(0.88)
The first time you had sexual intercourse:				
I put a lot of pressure on my partner	4.5	*	9.2	(2.04)
I put some pressure on my partner	6.5	**	14.3	(2.20)
Number of cases	201		205	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Significance levels for difference of proportions.

Table 3. Reported Reasons/conditions of First Sexual Intercourse by Gender and Response Method, Youth Age5 13-24 who have ever had Sex, Gilgel Gibe Social and Sexual Relationship History Survey 2006, Pooled Samples, Jimma Zone, Ethiopia.

Youth who have ever had sex	Females			Males		
	Verbal %	Card %	Card/Verbal	Verbal %	Card %	Card/Verbal
The first time you had sexual intercourse, did you do it:						
Because your partner pressured you?	10.3	13.2	(1.28)	16.4	* 29.0	(1.77)
Because your friends pressured you?	6.2	** 15.4	(2.48)	14.5	14.5	(1.00)
Because you were raped?	4.8	8.1	(1.69)	1.8	* 10.1	(5.61)
For money, to get a good grade in School or for some other gain?	2.7	* 7.4	(2.74)	0.0	2.9	
To show your partner you loved him/her?	27.4	25.0	(0.91)	54.5	42.0	(0.77)
To experience sex?	5.5	10.3	(1.87)	41.8	* 23.2	(0.56)
For pleasure?	31.5	25.7	(0.82)	60.0	59.4	(0.99)
Because you were married	82.9	75.7	(0.91)	52.7	46.4	(0.88)
The first time you had sexual intercourse:						
I put a lot of pressure on my partner	0.7	** 5.3	(7.57)	14.5	17.2	(1.19)
I put some pressure on my partner	2.1	*** 9.8	(4.67)	18.2	23.4	(1.29)
Number of cases	146	136		55	69	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Significance levels for difference of proportions.