

Timing of First Intercourse Among Malian Adolescents: Implications for Contraceptive Use

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Context: *The social and economic context in which Malian adolescents begin sexual activity is different from that experienced by previous generations. Little is known about the forces that currently shape adolescents' sexuality and affect their reproductive health.*

Methods: *A representative sample of 1,696 Malian adolescents (775 males and 921 females) aged 15–19 were interviewed in 1998 about sexual behavior and knowledge. Thirty focus-group discussions provided complementary insights into the context of and reasons for adolescents' first sexual encounters.*

Results: *Nearly half of sexually experienced urban males said they would have preferred to delay their first intercourse, compared with about one-fifth of females and of rural males. Males most often said curiosity and peer pressure (including pressure from their girlfriends) had led them to begin having sex earlier than they would have liked, while females in urban areas cited love and those in rural areas cited a promise of marriage. Focus groups, however, suggested that young urban women often had sex to obtain cash to meet their material needs and desires. Unmarried urban females who exhibited high self-esteem and an internal locus of control were significantly more likely to be satisfied with the timing of their first sexual encounter; these factors had no effect among males. Among adolescents who were satisfied with the timing of their first sexual experience, both males and females were more likely to have used a modern contraceptive at first intercourse, and females were more likely to have ever used a modern method. Multivariate analyses, however, indicated that a large part of the effect among females was mediated by psychological factors: High self-esteem and an internal locus of control were associated with an increased likelihood of having ever used contraceptives. Among young men, ever-use was strongly associated with self-esteem and was only weakly associated with the timing of first intercourse.*

Conclusions: *In Mali, young women's psychological characteristics are strongly associated with their sexual experience (including the timing of their first sexual encounter) and ultimately with their ability to protect themselves from sexual health risks.*

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Research throughout much of Africa indicates that the first sexual experiences of today's young people are taking place in a different social context from those of previous generations.¹ Increasing urbanization, modernization and education, together with exposure to Western media, appear to have led to a decline in traditional values and, in particular, to have reduced the importance of virginity at marriage.² Evidence suggests that parental control and authority over young people are declining and that adolescents are no longer willing—or required—to be accountable to the societal structures that formerly controlled and informed their sexual behavior.³

Previously, in many African societies, sexual health information concerning, for example, the giving and receiving of sexual pleasure, sexual taboos, rites and cleansing procedures was transmitted in conjunction with formal rituals such as circumcision or initiation. Now, however, the influence of such traditional structures has weakened, thus reducing the sources of social support and recourse for adolescents with sexual health questions and leading to increasing sexual health problems. Among the Diola of Senegal, for example, ignorance about sexuality and lack of access to contraception have produced high rates of abortion and infanticide among adolescents.⁴ Furthermore, the 1995–1996 Demographic and

Health Survey of Mali⁵ indicates that, as in other developing countries,⁶ an increase in the age at marriage is occurring in urban areas along with a decline in age at first intercourse. Sexual activity thus appears to be increasingly occurring before marriage, leading to increases in unwanted pregnancies and their associated risks.

First Intercourse

Clinical and behavioral research has found strong associations between age at first intercourse and subsequent sexual health. An earlier age at first intercourse is likely to lead to an increased lifetime number of sexual partners, an increased likelihood of multiple and concurrent partners,⁷ a lower probability of using modern contraceptive methods⁸ and an increased chance of infection with HIV or other sexually transmitted diseases (STDs).⁹

Research from a variety of cultural settings consistently indicates that the social context of adolescents' first sexual encounters also has consequences for their sexual health in later life. Most available studies on unwanted first intercourse report on the effects of rape, sexual violence or physical coercion on young women's later sexual behavior.¹⁰ Those who experience coerced or forced intercourse seem less likely to protect themselves against unwanted pregnancies or STDs in the future¹¹ and more likely to have multiple sexual partners.¹² However, little work has been done on the effect of first sexual experiences that, although not reported as rape, the respondents say they would have preferred to delay.

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A major methodological issue for many of these studies, including this one, is that some young people may retrospectively reappraise just how wanted or unwanted their first sexual encounter was at the time. Responses may reflect societal norms about the appropriate age for first sex rather than respondents' true feelings. It is also difficult to differentiate retrospectively between the precursors and consequences of forced first intercourse when longitudinal data are lacking. Thus, caution is necessary in data analysis and interpretation.

Psychological Factors

Adolescents who wish to avoid pregnancy may require more than accurate information or appropriate services. They may need to draw on psychological skills to abstain from intercourse when pressured, to obtain contraceptives in the face of community disapproval and, most important, to be able to convince partners of the benefits of contraceptive use. Developed-country research notes the importance of psychological factors in influencing the sexual behavior and perceptions of risk among adolescents, especially those from such particularly vulnerable groups as economically deprived populations.

For example, studies from Europe and America indicate that self-esteem is associated with the timing of first intercourse, which in itself has been shown to influence subsequent sexual behavior. Low self-esteem frequently appears to be associated with an earlier age at first intercourse,¹³ with having multiple or concurrent partners,¹⁴ and with adolescent childbearing.¹⁵

Improving self-esteem has been shown to be an important way to improve reproductive health outcomes for adolescents in Sub-Saharan Africa. For example, a successful health education program in Namibia used a curriculum based on social cognitive theory to increase young women's self-esteem and associated perceived control of their sexual relationships. These changes resulted in increased condom use and a delay in the timing of first intercourse.¹⁶

Low self-esteem has been associated with early and unwanted pregnancies and with sexual risk-taking in Sub-Saharan African settings. One study in Ouagadougou found that low self-esteem was common among adolescent mothers.¹⁷ The authors remarked that the young women's "self-esteem and physical development were such that they were unable to protect themselves against aggressive male behavior."¹⁸ Many had considerably older

partners; in most of these cases, the authors found that the young women had too little self-esteem to oppose their partners' assertion that there was no risk involved in having sexual relations or that pregnancy posed no severe problems.

Contraceptive use and safer sex behaviors are also affected by locus of control—the extent to which individuals believe that their behavior will have an impact on their situation.¹⁹ Those who believe that their actions can influence their circumstances are characterized as having an internal locus of control, while those who believe they have little or no influence on what happens to them are described as having an external locus of control. Locus-of-control measures allow for perceptions of the role of "powerful others," including individuals, God or supernatural forces.²⁰

Research suggests that having an internal locus of control is important in enabling people to refuse unwanted sexual advances and to insist on contraceptive use. In South Africa, for example, sexually active students categorized as having an external locus of control were more likely to perceive they were at low risk, to have four or more sex partners and to lack adequate knowledge about AIDS; they were also less likely to use condoms.²¹

Study Design

The research described here is part of a wider study in Mali and Burkina Faso examining the links between adolescent sexuality, sexual behavior and reproductive health. A representative sample of 921 girls and 775 boys aged 15–19 were interviewed throughout the country in early 1998. The makeup of the self-weighting sample was based on projections from the 1987 census.²² The sample unit was the "enumeration area"; within each unit, the number of households (individuals living together under the authority of a household head) sampled was based on the average household size, according to census data and the proportional distribution of married and unmarried adolescents in the population. The response rate among those approached for interview was 97%.

Basic socioeconomic and demographic data were collected, together with sexual histories and information about contraceptive knowledge and use and symptoms of STDs. Both single and married adolescent females were interviewed in the rural study sites. In urban areas, however, only single or engaged female adolescents were interviewed; married adolescent females were so rare that it

would have been necessary to vastly increase the sample size (and time and financial costs) to interview them. (For example, the 1987 census data²³ indicated that the proportion of married adolescent girls varied from 15% to 30% in the six communes that make up the city of Bamako, compared with about 50% in the rural study areas of Mopti, Sikasso and Koulikoro.)

To address the psychological aspects of sexual behavior, we developed a locally appropriate test, in collaboration with a local psychologist. The divide between the cultural values and expectations of Sub-Saharan Africa and those of North America and Europe limit the transferability of psychometric instruments developed in the West. For example, research in Malawi found that the Health Locus of Control Questionnaire was not culturally robust and failed to adequately capture local health beliefs.²⁴ We pretested approximately 30 questions designed to capture the psychological profiles of adolescents.* After discarding questions that appeared to be inappropriate or highly correlated with others, we were left with 12 that we felt were clear and culturally relevant to the young people we were interviewing. Questions to measure self-esteem included the following: "If it were possible, would you like to change something about your body (for example, your height, weight, skin color, nose, hair, etc.?)" and "You get up one day and no one in your family is speaking to you. Do you feel that you have done something wrong?" Locus of control was addressed by questions such as the following: "Do you think that your health sometimes depends on your behavior?" and "When a poor person becomes rich, do you think it is *above all* due to his/her destiny?" All data were entered and cleaned using ISSA and analyzed with SPSS and STATA.

After the main survey, 30 focus groups (each comprising 8–10 participants) car-

*Measures of self-esteem and locus of control were calculated from the answers to questions in the psychological test using standard scoring methods. Individuals who exhibited the characteristic in question received a score of two; those who did not scored zero. If they replied that they did not know, they scored one point. The total score for each characteristic was the sum of the scores for each of the four questions in the relevant category. It was therefore possible to score a maximum of eight points and a minimum of zero. The overall frequencies of each score for self-esteem were then examined and divided into thirds to correspond to high (two), medium (one) and low (zero). Overall frequencies for locus of control were divided into internal (two), medium (one) and external (zero). There was very little correlation between the two scales, which suggests that they measure different personality characteristics.

Table 1. Percentage of adolescents with selected social and demographic characteristics or median values for selected characteristics, by gender and residence, Mali, 1998

Characteristic	Males		Females	
	Urban (N=403)	Rural (N=372)	Urban (N=443)	Rural (N=478)
Education				
% ever attended school	80.6	18.6***	61.2	8.2***
% currently in school	66.3	10.8***	40.4	2.3***
Marital status				
% currently married	0.0	0.8	0.0	48.7
% currently engaged	0.5	4.8***	23.7	38.7***
Median age at marriage (yrs.)	na	na	na	17.3
Sexual characteristics				
Median age at puberty (yrs.)	16.7	16.8	15.2	15.2
Median age at first intercourse (yrs.)	17.4	16.8	17.9	15.7
% ever had sex	48.6	38.4**	52.1	82.2***
15	13.5	11.2	26.6	42.1*
16	40.3	20.5**	47.5	74.7***
17	59.8	52.6	61.5	88.2***
18	66.0	66.7	68.4	95.0***
19	69.8	67.9	71.7	97.5***

*p<.05. **p<.01. ***p<.001. Note: na=not applicable.

ried out with male and female adolescents in rural and urban areas explored themes that had emerged from analyses of the quantitative data. A purposive sample of individuals was identified through a series of screening questions about their educational and marital status and their availability to participate in the discussions. The discussions were tape-recorded, translated from Bambara and Fulfulde into French and transcribed. Coding and analysis were carried out using The Ethnograph™ computer software.

Results

Sample Characteristics

Table 1 shows the characteristics of the adolescents interviewed, by sex and by urban or rural residence. The percentage of adolescents who had ever attended school was far higher in urban areas than in rural areas for both males (81% vs. 19%) and females (61% vs. 8%). Young women in rural areas were more likely than their urban counterparts to be engaged (39% vs. 24%) or to be married (49% vs. 0%).

Young women in urban areas reported having their first sexual intercourse approximately two years later than did those in rural areas (medians of 17.9 and 15.7 years). Given that marriage occurs much earlier in rural areas, much of the urban females' sexual activity is likely to take place with a boyfriend, while a rural female's

first partner is likely to be her fiancé or husband. There was little difference in age at first intercourse between urban males and rural males (17.4 vs. 16.8 years).

Somewhat more than one-third of adolescent males in rural areas had had sex, compared with nearly half of their urban counterparts (38% vs. 49%). Those proportions were 82% and 52% among females. At each age, the percentage of females who had had sexual intercourse was much higher in rural areas than in urban areas. In fact, at any given age, the percentage of females who had

had sex was greater than the proportion of males. For young women in rural areas, sexual experience is virtually universal by age 19; by that age, 80% of females in our rural sample were married and 17% were engaged (data not shown).

The majority of the sample was made up of the Bambara ethnic group. Among the Bambara, a young woman's future spouse is permitted sexual access to her once initial bridewealth payments have been exchanged to mark a formal engagement. Thus, the two-year difference in age at first intercourse and age at marriage for females in rural areas reflects the notion of marriage as an ongoing process rather than a discrete phenomenon.

Reasons for First Intercourse

When asked why they had initiated sexual intercourse, rural males and urban males gave similar answers, generally related to curiosity and peer pressure (Table 2). The reasons given by urban females and rural females, however, differed sharply. Love was cited by nearly two-thirds (65%) of young women in urban areas, compared with 14% of their rural counterparts. In rural areas, where engagement and marriage give men sexual access, marital duty and promise of marriage were given as the main reasons for first intercourse. In contrast, 13% of females in urban areas cited financial reasons, compared with 3% of those in rural areas. Four percent of young women in rural areas and 5% of those in urban areas reported that fear was their primary reason. This figure may be an underestima-

tion, since social taboos and fear of stigmatization often lead to a reluctance to report rape or forced intercourse.²⁵

Retrospective Regrets

Among sexually experienced unmarried males, 46% of those in urban areas said that they wished they had delayed having intercourse, compared with 15% of their rural counterparts.* Among sexually active unmarried females, 17% of urban residents wished they had delayed their first sexual encounter, compared with 20% of rural residents. Unlike the rural-urban difference among males who wished they had delayed intercourse, the difference among females was not statistically significant (not shown).

Table 2 also shows the reasons for first intercourse cited by those who reported wishing it had occurred later. Although the overall number of cases (particularly

Table 2. Among all sexually experienced adolescents and among unmarried adolescents who wished they had delayed their first sexual experience, percentage giving selected reasons for first intercourse, by gender, according to residence

Gender and reason	Urban	Rural
ALL SEXUALLY ACTIVE ADOLESCENTS		
Males (N=196)	(N=143)	
Curiosity	50.0	40.6
Peer pressure	43.4	49.0
Love	23.5	32.2*
Physical attraction	12.8	9.8
Marital duty	0.0	0.0
Promise of marriage	0.0	0.0
Money	0.0	0.0
Fear	0.0	0.0
Other	1.0	3.5
Females (N=231)	(N=393)	
Curiosity	6.1	2.0**
Peer pressure	3.0	0.3
Love	65.4	14.0***
Physical attraction	8.2	1.0***
Marital duty	1.3	45.8***
Promise of marriage	19.0	39.4***
Money	12.6	2.5***
Fear	4.8	3.6
Other	0.0	0.8
UNMARRIED SEXUALLY ACTIVE ADOLESCENTS WHO WISHED SEX HAD BEEN DELAYED		
Males (N=91)	(N=21)	
Curiosity	45.1	57.1
Peer pressure	44.0	47.6
Love	23.1	9.5
Physical attraction	11.0	9.5
Other	1.1	0.0
Females (N=39)	(N=32)	
Curiosity	10.3	6.3
Peer pressure	5.1	0.0
Love	48.7	6.3**
Physical attraction	5.1	6.3
Future husband	0.0	9.4
Promise of marriage	10.3	53.1***
Financial reasons	25.6	12.5
Fear	20.5	15.6
Other	0.0	0.0

*p<.05. **p<.01. ***p<.001.

of rural males) is rather small, some interesting patterns are evident. Among males, curiosity and peer pressure were the most common reasons, with each cited by about half of urban and rural respondents. Some 23% of males in urban areas cited love, compared with 10% in rural areas, but this difference is not statistically significant.

Among young unmarried women who would have preferred to wait, 49% of those in urban areas gave love as their reason for first sex, compared with 6% of those in rural areas. More than half (53%) of young women in rural areas, compared with 10% of their urban counterparts, cited a promise of marriage. This finding reflects the different expectations and aspirations of the two groups and suggests the apparent adoption of the romantic love ideal among urban females and the prospect of early marriage among their rural counterparts.

One-quarter (26%) of urban females who would have preferred to delay intercourse indicated that financial reasons were behind their first sexual encounter. Some 21% cited fear, presumably of being hit or hurt if they did not give in to their first partner's sexual advances. The proportions of young women in rural areas giving reasons related to money or fear were somewhat smaller (13% and 16%, respectively).

Contraceptive Use

Urban males who perceived the timing of their sexual debut to be appropriate were significantly more likely than those who wished their first sexual encounter had occurred later to have used a modern method (essentially condoms) at first intercourse (24% vs. 9%).* Similarly, urban females who were satisfied with the timing of their first intercourse were significantly more likely to have used a modern method than were those who said they would have preferred to wait (15% vs. 0%).

Satisfaction with the timing of first intercourse had no effect on ever-use of modern contraceptives among males. Among females, however, those who were satisfied with the timing of their first intercourse were significantly more likely to have ever used a modern method than were those who wished their first sexual encounter had occurred later (37% vs. 18%).

Sexual Debut and Psychological Traits

To understand some of these associations, the psychological characteristics that shape, and are shaped by, adolescent sexual decision-making need to be understood. Table 3 shows the results of analy-

ses examining how self-esteem and locus of control are associated with urban adolescents' perceptions of the appropriateness of the timing of their first intercourse.

These factors appear to have no effect on young men. Among young women, however, those who were satisfied with the timing of their first intercourse were about three times as likely to have high self-esteem scores as were those who thought their first sexual encounter had occurred too early (44% vs. 15%). Moreover, 25% of those who found the timing of their first intercourse to be satisfactory exhibited an internal locus of control, compared with 3% of those who felt their first sexual encounter had been too early.

These findings may indicate that young women with low self-esteem or an external locus of control are somehow self-selected to have intercourse earlier than they would have otherwise wished because they lack the psychological skills to repel unwanted advances. By contrast, it may be that having had sex before they wanted to lowered their self-esteem and left them feeling that they could not control what happened to them. Being forced or cajoled into intercourse before their peers may have caused them to lose status in their community or to be derided or ridiculed, which could have a long-term psychological impact. Only longitudinal studies can shed light on the direction of these associations; however, there is little doubt that these psychological characteristics have important and significant effects on young women's sexual and other decision-making.

Multivariate Analyses

Table 4 (page 60) shows the results of two logistic regression models used to examine the relationship of demographic characteristics, the timing of first intercourse and psychological factors to ever-use of contraceptives among unmarried young women and men in urban areas.[†] In the first model, which omitted psychological characteristics, a young woman was significantly more likely to have ever used a modern method with every increase of a year in age (odds ratio of 1.4). Those who were engaged were significantly less likely than those who were not to have used

Table 3. Percentage distribution of urban unmarried adolescents, by psychological characteristics, according to gender and satisfaction with the timing of their first intercourse

Characteristic	Males		Females	
	Satisfactory (N=105)	Too early (N=91)	Satisfactory (N=188)	Too early (N=39)
Self-esteem				
Low	24.8	25.3	17.0	25.6
Medium	41.9	40.6	39.4	59.0*
High	33.3	34.1	43.6	15.4***
Locus of control				
External	14.3	23.1	31.9	53.8**
Medium	69.5	57.1	43.1	43.6
Internal	16.2	19.8	25.0	2.6***
Total	100.0	100.0	100.0	100.0

*p<.05. **p<.01. ***p<.001.

a modern method (0.1). (Childbearing is often permitted once a formal engagement has occurred; in addition, engaged young women may even seek to become pregnant to hasten their marriage.)

In the basic model, the timing of first intercourse is significantly associated with ever-use of modern contraceptives. The odds of ever-use among those who had first had intercourse at age 15–16 were nearly nine times the odds among those who had first done so at age 14 or younger (odds ratio of 8.8). Similarly, those who had first had intercourse when they were 17 or older were significantly more likely to have used a modern method at some time than were those who had first had intercourse when they were 14 or younger (odds ratio of 3.6). Young women who reported that their first sexual encounter had occurred too early were significantly less likely to have ever used a modern method (0.2).

In the model that included self-esteem and locus of control, the effect of age at the

*Our analyses of the association between contraceptive use and satisfaction with the timing of first intercourse focus only on urban adolescents. The number of young people in rural areas who wished that they had been able to postpone intercourse was too small for meaningful statistical analysis; in addition, only 3% of rural females and 10% of rural males reported ever having used a modern method of contraception.

†The urban and rural economic scores presented below are the grouped results of a rotated factor analysis of household possessions using a varimax rotation. The factor analysis resulted in two distinct groupings broadly corresponding to urban and rural residence. Frequencies of these two factor scores were then examined and each one was divided into three to represent "high," "medium" and "low." Both variables were included in the cross-tabulations and multivariate analyses because possessing essentially urban items (for example, a car or moped) and primarily rural items (such as a bicycle or donkey cart) are not mutually exclusive. However, 89% of rural residents had a high rural score and 82% of urban residents had a high urban score. These variables thus capture both urban and rural residence and economic status in one measure.

Table 4. Odds ratios (and 95% confidence intervals) from multivariate analysis of ever-use of modern contraceptives among unmarried urban youth, by gender and selected characteristics

Gender and characteristic	Without psychological variables	With psychological variables
FEMALES (N=227)		
Demographic characteristics		
Age	1.44 (1.08–1.93)*	1.50 (1.11–2.03)**
Engaged	0.13 (0.05–0.37)***	0.11 (0.04–0.32)***
Educated	1.26 (0.62–2.56)	0.91 (0.42–1.95)
Bambara	1.45 (0.73–2.90)	1.79 (0.86–3.71)
High economic status	1.03 (0.53–1.99)	1.06 (0.52–2.14)
First intercourse		
Age at first intercourse		
<14	ref	ref
15–16	8.84 (2.13–36.58)**	11.22 (2.42–52.03)**
≥17	3.63 (1.31–10.06)*	3.71 (1.22–11.26)*
Too early	0.22 (0.07–0.68)**	0.32 (0.01–0.10)
Psychological characteristics		
High self-esteem	na	3.30 (1.65–6.60)***
Internal locus of control	na	2.37 (1.05–5.37)*
MALES (N=196)		
Demographic characteristics		
Age	2.05 (1.48–2.84)***	2.08 (1.48–2.92)***
Educated	2.04 (0.81–5.10)	1.46 (0.56–3.83)
Bambara	0.70 (0.35–1.41)	0.66 (0.32–1.39)
High economic status	1.50 (0.76–2.96)	1.42 (0.70–2.87)
First intercourse		
Age at first intercourse		
<14	ref	ref
15–16	1.47 (0.49–4.47)	1.58 (0.50–4.93)
≥17	2.24 (0.98–5.09)	2.47 (1.04–5.84)*
Too early	0.69 (0.34–1.41)	0.63 (0.30–1.33)
Psychological characteristics		
High self-esteem	na	3.04 (1.52–6.07)***
Internal locus of control	na	1.62 (0.70–3.75)

*p<.05. **p<.01. ***p<.001. Note: na=not applicable.

time of the survey became even greater, while the effects of formal engagement and age at first intercourse remained similar. The perception that first intercourse occurred too early, however, no longer had a significant impact. Having high self-esteem and having an internal locus of control significantly increased the odds of ever having used a modern contraceptive (3.3 and 2.4, respectively). Together, the two models indicate that, for young women, much of the association between ever-use of modern contraceptives and perceived appropriateness of the timing of intercourse acts through psychological factors.

The data do not indicate whether low self-esteem is the cause or the consequence of early intercourse or of the wish that first intercourse had occurred later. Nevertheless, we put forward the hypothesis that if young women’s first sexual experience is unwanted, this perhaps serves to change their perception of themselves, their perceived ability to influence their situation and their subsequent behavior. In particular, such unwanted sexual experiences may influence and form the psychological skills that they need to draw on subsequently to

practice safe sex.

For young men, the evidence is not so clear-cut. As was the case for young women, the odds that a young man had ever used a modern contraceptive rose significantly with each increase of a year in age (odds ratio of 2.1). However, none of the variables related to timing of first intercourse had a statistically significant effect.

In the model including the psychological variables, young men who had delayed intercourse until age 17 or older were significantly more likely to have ever used a modern method than were those who had had their first sexual experience at age 14 or younger (odds ratio of 2.5). As was the case for young women, the perception of first intercourse as too early was not associated with ever-use of contraceptives. For young men, as for

young women, having high self-esteem was strongly and positively associated with ever-use of modern contraceptives (odds ratio of 3.0).

These results suggest different patterns for young men and young women. For young women, the addition of self-esteem and locus of control decreases the significance of the perception of the timing of intercourse, suggesting that a large part of the influence of the timing of first sex on subsequent sexual behavior occurs through psychological factors. For young men, however, the effect of timing of first intercourse on ever-use of contraceptives is weak and does not operate through self-esteem, which has a strong, independent effect.

Elsewhere, we have shown that young men’s psychological characteristics are shaped independently of their sexual experience and are largely formed by their social and community roles.²⁶ We noted, in contrast, that young women’s psychological characteristics appear to be strongly associated with their sexual activity. We suggested that these findings may reflect the linkage of sex with spousal and maternal roles, through which women accrue

status in many Malian societies. The results of this study provide supporting evidence, by indicating that psychological factors mediate the association between age at first intercourse and ever-use of contraceptives among young women. Young women’s perceptions and evaluations of their early sexual experiences appear to have important implications for later risks to their sexual health. This does not appear to be the case for young men, who accrue self-esteem and other psychological skills from sources other than sex.

Qualitative Data

The qualitative data we gathered shed light on reasons for unwanted first intercourse. Findings from the focus groups for urban young men, rural young men and rural young women were generally consistent with the quantitative data from our survey. These data underline the importance of peer pressure, curiosity and promise of marriage, respectively, as respondents’ reasons for engaging in sexual activity before they felt ready. For urban young women, however, the quantitative data suggest romantic love as the primary factor behind unwanted first intercourse, while the focus groups reveal evidence that these respondents engaged in first and subsequent intercourse primarily for financial reasons.

This discrepancy raises important methodological issues. It is possible that, because focus groups tend to elicit norms as participants consider abstract or hypothetical situations,²⁷ young women were more ready to talk about financial reasons as motivating others. During such discussions, they were not asked to talk about their own experiences. During the survey, which focused on individual behavior, they may have preferred to cite “love” as the reason for their first sexual experience. They may have considered love a more socially acceptable response than economic gain, although the latter was actually their primary motivation.

The focus-group data reveal that peer pressure for boys came from two sources—first, from their male counterparts, but also from their girlfriends, who threatened to denounce them as impotent if they refused to have sex.

“For me it was my girlfriend and my friends who pushed me to do it. My girlfriend kept asking if I was a man, so I had to prove it to her.”—*Educated urban male, Bamako*

Many of these young men may have been perfectly happy with the timing of their first intercourse; they may have said

that they were the victims of potential blackmail or slander by young women so that they could appear to have tried to adhere to community norms forbidding premarital sex. However, the constant reiteration during focus-group discussions in both rural and urban areas that young women actively seduced young men suggests that these stories are genuine, although perhaps not as widespread as the respondents implied. These findings are reinforced by the quantitative data we collected, which indicate that nearly half of all young men indicated that they would have preferred to delay their first sexual encounter. Even in the young women's focus groups, participants admitted that they sometimes cajoled inexperienced boys into sex.

"Today young men are not well brought up, so their girlfriends want to initiate them very quickly and push them into having their first sexual encounter before marriage."—*Uneducated rural married female, Kolondieba*

As described, the main reason for first intercourse that emerged from the focus-group discussions with young urban women was the economic benefit they received in exchange for sex. An increasingly materialistic world combined with intensive media exposure appears to be changing adolescents' aspirations. As the demand for modern, sophisticated fashion and household items increases, young women frequently seem to see intercourse as a means of gaining cash to purchase them.

"I think the change is due to the television, because young people want everything they see on the screen."—*Uneducated urban male, Douentza*

As has been reported elsewhere,²⁸ the majority of sexual encounters among unmarried young people in Mali involve financial recompense of the female partner by the male. Hence, in some cases, girls appear to engage in sexual activity to achieve their economic ends.

"Often young women aspire to a lot of things, but they don't have the means [to buy them]. So they give themselves unwittingly to men without being ready."—*Uneducated rural married female, Kolokani*

This phenomenon was much more apparent in urban areas, where education and media exposure have given young women material aspirations that they can sometimes meet only through sexual activity.

"There has been a change because even here at school my classmates encourage each other to act 'loose' by showing each

other the money that they get from their lovers. So certain ones are driven to imitate their classmates; that is to say, they themselves find lovers and begin to have sex before being married."—*Educated urban unmarried female, Douentza*

Obviously, young women are likely to gain more lucrative benefits from older partners than from male adolescents. Analyses presented elsewhere²⁹ indicate that in urban areas, 27% of young women who reported that their last partner regularly gave them money had partners who were 10 years or more older than they were, compared with 14% of those who reported that they rarely or never received money ($p < .05$).

Changing family responsibilities for the economic needs of adolescent girls appear to drive them to engage in sex for cash, with young people, particularly those in urban areas, being required to be financially independent rather than relying on family support.

"The situation has changed because beforehand parents paid for all the expenses of their children, but now there are girls who have to take on all their own expenses and that's why they have to have sex before marriage."—*Educated urban unmarried female, Douentza*

Conclusions

Taken together, these quantitative and qualitative data confirm that social changes are reshaping sexual decision-making and behavior among urban adolescents in Mali. Increasing modernization and media exposure, along with a decline in the authority of parents and elders, have undermined the societal and cultural rules that formerly controlled and informed adolescent sexuality. As material demands have escalated, adolescents' expenditures have become individual rather than family concerns. The primary sources of income for young urban women are older men who probably have higher incomes and better material prospects than young men in their own age-group.

The analyses presented here indicate that, for young women, the perceived appropriateness of the timing of first intercourse does appear to shape, or be shaped by, psychological factors that influence their ability and motivation to engage in safe sexual practices later on. No such pattern emerged among young men.

The data suggest that adolescent—and indeed adult—sexual behavior may be shaped early in an individual's sexual career. In Mali, young women's subsequent use of contraceptives appears to be linked

to their satisfaction with the timing of their first sexual encounter. Programs and interventions should seek to help individuals postpone their first sexual experience until they feel ready. Failing that, health messages and support services, perhaps through peer counseling, can seek to reinforce safe-sex messages and reduce high-risk behaviors among those who have already begun their sexual lives. Any programs that equip young people with psychological and bargaining skills that enable them to have sex when they want and to protect themselves from unwanted pregnancy and STDs are likely to have an important impact on adolescents' current and future sexual health. In addition, further qualitative, longitudinal research is needed to elicit the exact nature of the association between timing of intercourse and subsequent sexual behavior and the direction of causality between the two phenomena.

Clearly, there are also broader issues at stake. These data present the paradoxical picture in this patriarchal society of adolescent females actively seducing adolescent males. However, broader societal notions of female status and advancement have to be considered and, far from being empowering, the situation actually underscores the continuing subjugation of women in this setting. The data show that adolescent women's self-esteem is clearly related to sex, which is not the case for their male peers, who derive self-esteem from their community and social roles.

These findings emphasize the importance of making available to young women sources of self-esteem that are not associated with sexual encounters, and in particular, with risky sexual encounters. This approach must go hand-in-hand with the development of economic opportunities for young women outside the domain of sexual relations; such opportunities would enable them to pay for the items they desire with cash gained from small-enterprise opportunities or other non-sexual methods of income generation. While welcoming the opportunities that increasing modernization affords through the extension of media and other global information channels, development programs and policymakers must be aware of its potentially negative consequences and seek to enable young people to participate in the modern world without being exploited by it.

*Nearly one-quarter (23%) of unmarried urban young women in the study had a last or current partner who was more than 10 years their senior.

References

1. Friedman HL, Changing patterns of adolescent sexual behavior: consequences for health and development, *Journal of Adolescent Health*, 1992, 13(5):345-350.

2. Pillai VK, Achola PP and Barton T, Adolescents and family planning: the case of Zambia, *Population Review*, 1993, 37(1-2):11-20.

3. Letamo G and Bainame K, The socio-economic and cultural context of the spread of HIV/AIDS in Botswana, *Health Transition Review*, 1997, 7(Suppl. 3):97-101.

4. Sané K, Comportement sexuel des adolescents en milieu Diola, *Bien-Etre*, Jan.-Mar. 1994, No. 6, pp. 6-8.

5. Coulibaly S et al., *Enquête Démographique et de Santé, Mali, 1995-1996*, Calverton, MD, USA: Macro International, 1996.

6. Carael M, Sexual behaviour, in: Cleland J and Ferry B, eds., *Sexual Behaviour and AIDS in the Developing World*, London: Taylor and Francis, 1995, pp. 75-123.

7. Norris A and Ford K, Sexual experiences and condom use of heterosexual, low-income African American and Hispanic youth practicing relative monogamy, serial monogamy, and nonmonogamy, *Sexually Transmitted Diseases*, 1999, 26(1):17-25.

8. Adih WK and Alexander CS, Determinants of condom use to prevent HIV infection among youth in Ghana, *Journal of Adolescent Health*, 1999, 24(1):63-72.

9. Brabin L, Pelvic inflammatory disease, *Africa Health*, 1993, 15(3):15-17; and Konings E et al., Sexual behaviour survey in a rural area of northwest Tanzania, *AIDS*, 1994, 8(7):987-993.

10. Wood K, Maforah F and Jewkes R, "He forced me to love him": putting violence on adolescent sexual health agendas, *Social Science and Medicine*, 1998, 47(2):233-242.

11. Coker AL and Richter DL, Violence against women in Sierra Leone: frequency and correlates of intimate partner violence and forced sexual intercourse, *African Journal of Reproductive Health*, 1998, 2(1):61-72.

12. Heise L, Moore K and Toubia N, Defining "coercion" and "consent" cross-culturally, *SIECUS Report*, 1996, 24(2):12-14; and Chapko M et al., Predictors of rape in the Central African Republic, *Health Care for Women International*, 1999, 20(1):71-79.

13. Mott F et al., The determinants of first sex by age 14 in a high-risk adolescent population, *Family Planning Perspectives*, 1996, 28(1):13-18.

14. Heise L, Moore K and Toubia N, 1996, op. cit. (see reference 12).

15. Edwards DA, Social class and racial differences in the antecedents of unwed adolescent childbearing, doctoral dissertation, Arizona State University, AZ, USA, 1993.

16. Stanton BF et al., Increased protected sex and abstinence among Namibian youth following an HIV risk-reduction intervention: a randomized, longitudinal study, *AIDS*, 1998, 12(18):2473-2480.

17. Görgen R, Maier B and Diesfeld HJ, Problems related to schoolgirl pregnancies in Burkina Faso, *Studies in Family Planning*, 1993, 24(5):283-294.

18. *Ibid.*, p. 291.

19. Perkel AK, Development and testing of the AIDS psychosocial scale, *Psychological Reports*, 1992, 3(1):767-778; and Venier J, Ross M and Akande A, HIV/AIDS related social anxieties in adolescents in three African countries, *Social Science and Medicine*, 1997, 46(3):313-320.

20. Lester D and Cook S, Abortions, contraceptive use and locus of control, *Psychological Reports*, 1988, 62(1):278.

21. Perkel AK, Strebel A and Joubert G, The psychology of AIDS transmission: issues for intervention, *South African Journal of Psychology*, 1991, 21(3):148-152.

22. Bureau Central du Recensement, *Recensement Général de la Population et de l'Habitat 1987*, Bamako, Mali: Bureau Central du Recensement, 1988.

23. *Ibid.*

24. MacLachlan M, Ager A and Brown J, Health locus of control in Malawi: a failure to support the cross-cultural validity of the HLOCQ, *Psychology and Health*, 1996, 12(1):33-38.

25. Meursing K et al., Child sexual abuse in Matabeleland, Zimbabwe, *Social Science and Medicine*, 1995, 41(12):1693-1704.

26. Castle S, Yaro Y and Konaté MK, Links between psychological factors, status and sexual behaviour among Malian adolescents, unpublished manuscript, 2000.

27. Helitzer-Allen D, Makhambra M and Wangel A, Obtaining sensitive information: the need for more than focus groups, *Reproductive Health Matters*, 1994, 2(3):75-82.

28. Castle S and MK Konaté, The context and consequences of economic transactions associated with sexual relations among Malian adolescents, paper presented at the Third African Population Conference: The African Population in the 21st Century, Durban, South Africa, Dec. 6-10, 1999.

29. *Ibid.*

Resumen

Contexto: El contexto social y económico en el que los adolescentes de Malí inician su actividad sexual es diferente a la que experimentaron las generaciones anteriores de ese país. Se dispone de pocos datos con respecto a los elementos que actualmente influyen en la formación de la vida sexual de los adolescentes y que afectan su salud reproductiva.

Métodos: Una muestra representativa de 1.696 adolescentes de Malí (775 varones y 921 mujeres), de entre 15 y 19 años, fue entrevistada en 1998, acerca de su conducta y conocimiento sexuales. Igualmente se realizaron 30 grupos focales que ofrecieron datos complementarios sobre el contexto en que ocurre la primera relación sexual y las razones que aducen los adolescentes que explican su decisión de iniciar las relaciones sexuales.

Resultados: Casi la mitad de los hombres de las zonas urbanas que tenían experiencia sexual manifestaron que hubieran preferido haber postergado su primera relación, en comparación con aproximadamente un quinto de las mujeres, y la misma proporción de los hombres de las zonas rurales. Los hombres manifestaron en su mayoría, que la curiosidad y la presión de sus pares (inclusive la presión de sus novias) los había llevado a iniciar relaciones sexuales antes de lo que les hubiera gustado, en tanto que las mujeres de las zonas urbanas indicaron que lo habían hecho por amor, y aquellas de las zonas rurales que lo habían hecho con base en una promesa de matrimonio. Sin embargo, los grupos focales sugirieron que las jóvenes de los centros urbanos con frecuencia

tenían relaciones sexuales para obtener dinero y satisfacer sus necesidades y deseos materiales. Las mujeres no casadas de las zonas urbanas que tenían un alto nivel de autoestima y un autocontrol interno eran significativamente más proclives a estar satisfechas con el momento en que habían tenido su primera relación sexual; estos factores no presentaban ningún efecto entre los varones. Entre los adolescentes que estaban satisfechos con el momento en que habían iniciado su experiencia sexual, tanto los hombres como las mujeres eran más proclives a haber usado un método anticonceptivo moderno durante dicha primera vez, y las mujeres eran más proclives a haber usado alguna vez un método moderno. No obstante, los análisis de multivariantes indicaron que una gran proporción de los efectos identificados entre las mujeres eran causados por factores psicológicos: un elevado nivel de autoestima y un control interno estaban relacionados con una mayor probabilidad de haber usado alguna vez métodos anticonceptivos. Entre los jóvenes varones, el uso de un método alguna vez estaba estrechamente relacionado con el factor de la autoestima, pero estaba apenas asociado con el factor del momento de haber tenido la primera relación sexual.

Conclusiones: En Malí, las características psicológicas de las jóvenes están estrechamente vinculadas con sus experiencias sexuales (incluido el momento de haber tenido su primera relación sexual) y, por último, con su capacidad de protegerse de los riesgos de salud que constituyen las relaciones sexuales.

Résumé

Contexte: Le contexte socioéconomique dans lequel les jeunes du Mali entament leur activité sexuelle diffère de l'expérience vécue par les générations précédentes. Les forces qui façonnent la sexualité des adolescents et qui affectent leur santé reproductive sont peu connues.

Méthodes: Un échantillon représentatif de 1.696 adolescents maliens (775 jeunes hommes et 921 jeunes femmes) âgés de 15 à 19 ans a été interviewé en 1998 sur les questions des connaissances et comportements sexuels des jeunes. Trente discussions de groupe ont apporté une information complémentaire sur le contexte et la motivation des premiers rapports sexuels des adolescents.

Résultats: Près de la moitié des jeunes citadins sexuellement expérimentés ont indiqué qu'ils auraient préféré différer leurs premiers rapports sexuels, par rapport à un cinquième environ des jeunes filles et des jeunes hommes des milieux ruraux. Les garçons ont le plus souvent invoqué la curiosité et la pression exercée par leur entourage (petites amies comprises) parmi les raisons les ayant poussés à

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avoir des rapports sexuels plus tôt qu'ils ne l'auraient sinon désiré. Pour les jeunes citadines, il s'agissait plutôt de l'amour, et pour les adolescentes des milieux ruraux, d'une promesse de mariage. Les groupes de discussion semblent toutefois indiquer que les jeunes femmes consentent souvent à une relation sexuelle en échange de l'argent nécessaire à la satisfaction de leurs besoins et désirs matériels. Les jeunes citadines célibataires qui présentaient un haut niveau d'amour propre et de maîtrise

personnelle étaient significativement plus susceptibles de se déclarer satisfaites du moment de leurs premiers rapports sexuels. Ces facteurs sont apparus sans effet parmi les jeunes hommes. Parmi les adolescents satisfaits du moment de leur première expérience sexuelle, tant les garçons que les filles étaient plus susceptibles d'avoir pratiqué une méthode de contraception moderne lors de ces premiers rapports, et les filles étaient plus susceptibles d'avoir jamais pratiqué de méthode moderne. Les analyses multivariées révèlent toutefois l'intervention, dans une large mesure parmi les jeunes filles, de facteurs psychologiques.

Aux hauts niveaux d'amour propre et de maîtrise personnelle correspondait une probabilité accrue d'avoir jamais eu recours à la contraception. Parmi les jeunes hommes, la pratique était fortement associée au facteur d'amour propre, mais faiblement seulement au moment des premiers rapports sexuels.

Conclusions: Au Mali, les caractéristiques psychologiques des jeunes femmes sont largement associées à leur expérience sexuelle (y compris le moment de leurs premiers rapports sexuels) et, en fin de compte, à leur aptitude à se protéger contre les risques susceptibles d'affecter leur santé sexuelle.