

The role of the family environment in adolescent sexual activity in four African countries

Ann Biddlecom¹
Susheela Singh¹
Kofi Awusabo-Asare²

September 2007

DRAFT

Paper submitted for presentation at the 2008 Population Association of America Meetings, New Orleans, LA, April 17-19, 2007.

Acknowledgements are due to the researchers from the “Protecting the Next Generation” project from which the survey data originated: Kay Kumi-Kyereme of the University of Cape Coast, Ghana; Christine Ouedraogo and Georges Guiella, formerly of the Institut Supérieur des Sciences de la Population, Burkina Faso; Stella Neema and Richard Kibombo of the Makerere Institute of Social Research, Uganda; Alister Munthali and Sidon Konyani, Centre for Social Research, Malawi; Alex Ezeh and Eliya Zulu of the African Population and Health Research Center, Kenya; Nyovani Madise, University of Southampton, UK; and Akinrinola Bankole and Ann Moore of the Guttmacher Institute, United States. Correspondence should be directed to: Ann Biddlecom, Guttmacher Institute, 125 Maiden Lane, 7th Floor, New York, NY 10038. Tel: 212-248-1111 ext. 2273. Fax: 212-248-1951. E-mail: abiddlecom@guttmacher.org.

1 Guttmacher Institute, New York, New York, United States

2 Department of Geography and Tourism, University of Cape Coast, Cape Coast, Ghana

Abstract

This paper examines the association of family environment (co-residence with parents/parent-figures, parental monitoring and communication about sex-related matters) with recent sexual activity of unmarried adolescents. Analyses are based on unique data from nationally-representative surveys with 12-19 year olds conducted in 2004 in Ghana, Burkina Faso, Malawi and Uganda. Unmarried adolescents report high levels of parental monitoring in contrast to parental communication. Multivariate analyses show a significant negative association between parental monitoring—especially how often parents know where their children go at night—and the likelihood of being sexually-active across countries and for both female and male adolescents. Co-residence with two parents (versus none) lowered the likelihood of recent sexual activity and parental communication had a positive association, but effects were not consistent across countries or sexes. Results suggest that the family environment has a positive influence on the sexual health of unmarried adolescents via parental monitoring.

Background

A number of studies of adolescent sexual behavior have shown that parents and families can have a positive influence on the sexual health and development of adolescents, from helping to delay the timing of first sex to lowering the likelihood of adolescents engaging in risk behaviors such as having multiple sex partners or an unplanned pregnancy (DiClemente et al. 2001; Li, Feigelman and Stanton 2000; Karim et al. 2003). In essence, parents and families matter for adolescent health, but the evidence for specific mechanisms through which parents improve adolescent sexual and reproductive health is not as consistent or wide-ranging as the general point that they can help. This paper examines the association of family environment (co-residence with parents/parent-figures, parental monitoring and communication about sex-related matters) with recent sexual activity of unmarried adolescents in four African countries that have representation across the region and range in the severity of the AIDS epidemic.

One mechanism through which parents can influence adolescent sexual behavior is through communication. A common public health strategy to prevent premarital pregnancy, sexually-transmitted infections (STIs) and HIV among adolescents is to encourage parent-child communication about these issues. In the United States, the evidence is decidedly weak on the impact of parent-child communication about sex on adolescent sexual behavior, though generally there is support that parent-child communication should happen (Kirby and Miller 2002). In Sub-Saharan Africa, existing evidence suggests that parent-child communication about sex-related matters is relatively uncommon, and is fraught with discomfort, especially communication with fathers (Ampofo 2001; Amuyunzu-Nyamongo et al. 2005; Kiragu et al. 1996; Tweedie and Witte 2000).

Several research studies from the United States suggest that it is parental monitoring—another dimension of the family environment—rather than communication per se that is associated with better adolescent sexual and reproductive health outcomes (Bettinger et al., 2004; DiClemente et al. 2001; Li, Feigelman and Stanton 2000). For example, a prospective cohort study of 14-19 year old African American adolescents examined acquisition of STIs and found that high levels of parental supervision were associated with reduced incidence of gonorrhea and chlamydia (after adjusting for age and baseline infection), yet there was no association between parental communication and reduced incidence of these STIs (Bettinger et al. 2004). Two studies of adolescents in low-income neighborhoods in the United States also found negative associations between parental monitoring and STIs (DiClemente et al. 2001) and sexual risk behaviors (such as not using a condom at last sex or having multiple sexual partners) (DiClemente et al. 2001; Li, Feigelman and Stanton 2000).

There is some evidence that parental monitoring holds the same negative relationship with adolescent risk behaviors in sub-Saharan African countries. One proxy measure for parental involvement is simply whether a mother and/or father live with their children in the same household. A survey-based study in a slum in Nairobi, Kenya showed that when the father lived in the household, his never-married 12-19 year old daughters were much

less likely to have ever had sex, to have had an unwanted pregnancy or to have been recently sexually-active than when neither parent or only the mother lived in the household (Ngom, Magadi and Owuor 2003). In Ghana, national survey data showed a protective effect of living with both parents compared to other kinds of living arrangements on ever having sex for adolescent females, but not for males and there was no association with number of sexual partners or contraceptive use (Karim et al. 2003). Another study in Cote d'Ivoire found that living in the same household as the father in childhood was associated with a delay in first sex for female adolescents (but not for males), and opposite effects of parent-child communication about abstinence on sexual initiation among daughters (delaying it) and sons (associated with earlier initiation of sex) (Babalola, Tambashe and Vondrasek 2005). Studies that test the relationship of both family communication and monitoring with adolescent sexual behavior in Sub-Saharan African countries are still few; thus, the evidence discussed in this paper will help programmatic efforts most effectively involve families in preventing HIV, STIs and unwanted pregnancy among adolescents.

This study focuses on unique, new survey data from Burkina Faso, Ghana, Malawi and Uganda. These four countries reflect different sub-regions of Sub-Saharan Africa and different HIV prevalence levels, thus enabling identification of common patterns that increase understanding of these issues for the region as a whole. Ghana and Burkina Faso (a Francophone African country) are in West Africa and have comparatively low HIV prevalence levels among young adults (0.2%-0.5% among male 15-24 year olds and 1.3%-1.4% among female 15-24-year-olds in Ghana and Burkina Faso, respectively) (Joint United Nations Programme on HIV/AIDS 2006). Uganda and Malawi are in East and South-East Africa and have been harder hit by the AIDS epidemic, with estimated HIV prevalence levels among young adults in 2005 ranging from 2.3%-3.4% among young men to 5.0%-9.6% among young women in Uganda and Malawi, respectively (Joint United Nations Programme on HIV/AIDS 2006).

Data and Methods

Data are from nationally-representative, household-based surveys of female and male 12-19-year-olds conducted in 2004 in each country.¹ The national surveys were designed to be as comparable as possible and to include a wide range of measures of family context. All 12-19 year old de facto residents in each sampled household were eligible for inclusion in the survey. Informed consent was sought from 18-19-year-olds. Consent from a parent or caretaker was first obtained for adolescents aged 12-17 years before the eligible minor adolescent was then approached for assent to participate in the survey. Interviews were completed with 5,955 12-19-year-olds in Burkina Faso, 4,430 in Ghana, 4,031 in Malawi and 5,112 in Uganda. The overall individual response rate ranged between 86.6% (Uganda) and 95.2% (Burkina Faso).

The analytic sample is restricted to adolescents who are not in a marital or cohabiting union because married adolescents are assumed to be already sexually-active, getting pregnant is normative and married adolescents are more likely to be under the influence

¹ Four districts in the Northern region of Uganda had to be dropped from the sample due to security concerns during fieldwork.

of a spouse rather than parents or other guardians. The dependent variable is whether an adolescent reported having had sexual intercourse in the 12 months prior to the survey interview. The key independent variables are co-residence with biological parents or parent-figures, three measures of perceived parental monitoring and one measure of perceived parental communication about sex-related matters. For adolescents whose biological mother or father had died, separate questions were asked whether there was an adult the adolescent considered as a mother- or father-figure and whether that person lived with the adolescent. This information was incorporated into the measure of co-residence--distinguishing between co-residence with both parents/parent-figures, mother only, father only, or no parents/parent-figures—in order to have a more accurate representation of the proximate, physical presence of a caregiver in an adolescent's life.

The three parental monitoring measures are an adolescent's perception of parent/guardian knowledge of 1) where the adolescent goes at night, 2) what the adolescent does with free time, and 3) who the adolescent's friends are. Each question had three response categories: parent/guardian does not know, sometimes knows and always knows. The communication measure is based on an open-ended question about the types of people who have talked to the adolescent about sex-related matters. The phrase "sex-related matters" was purposefully kept vague because prior questions had been about specific areas of reproductive health, and there was need for an additional measure about general issues of an intimate nature. The question was preceded by a statement that the questions were going to be about people who may have talked to the respondent about personal things. A limitation of this measure is that the exact content and tone of these talks are unknown.

Bivariate analyses of sexual activity and co-residence, parental monitoring and communication were conducted separately by sex and using a Chi-square statistic to indicate a significant association between sexual activity and the family environment measures. Logistic regression analysis was used to examine the association between sexual activity and intercourse in the 12 months prior to survey interview and co-residence, parental monitoring and communication, controlling for the respondent's age and current school attendance.

Results

Unmarried adolescents in all four countries report very high levels of parental monitoring: for example, half or more of both female and male adolescents across all countries think their parents or guardians *always* know where they go at night. Stark gender differences emerge in that many more adolescent females report that their parents or guardians "always know" where they go at night, what they do with their free time and who their friends are compared to males. In contrast to monitoring, parental communication about sex-related matters is quite low—no more than about one in three adolescents say a parent has ever talked to them about sex-related matters—and this is particularly uncommon among adolescent males. Bivariate analyses with recent sexual activity show consistent, negative associations between the parental monitoring measures and recent sexual activity for both female and male adolescents. A much weaker and less consistent relationship exists between parental communication and recent sexual activity.

[Table 1 about here]

Multivariate analyses show a significant negative association between increased parental monitoring—especially how often parents/guardians know where their children are at night—and the likelihood of being sexually-active, net of age and current school attendance. Co-residence with two parents/parent-figures (versus none) lowers the likelihood of recent sexual activity, but living with a single parent (regardless of the parent being a mother or a father) is not associated with recent sexual activity compared to living with no parent. One exception is for adolescents in Ghana, where interestingly living with a mother lowers the likelihood of recent sexual activity for boys but increases it for girls. Parental communication with adolescents about sex-related matters was not consistently associated with recent sexual activity across countries, and where it was statistically significant, it had a positive association with recent sexual activity.

[Table 2 about here]

A limitation of this study is that the cross-sectional data do not allow for causally disentangling the relationship between family environment characteristics and adolescent sexual activity. A second limitation is that the measure of parent-child communication is about talk of sex-related matters and does not distinguish topics (e.g., abstinence or contraceptive use) or tone (e.g., supportive or disciplinary). A third limitation is that the measures of parental monitoring and communication are adolescents' perceptions of what is happening, which may not reflect the reality of what parents or guardians are actually doing. However, one could also argue that it is those very perceptions of what is happening that directly feed into the decisions (or lack thereof) that adolescents take in their lives.

Conclusion

This new national evidence for four African countries shows that the family environment has a positive influence on the sexual health and development of unmarried adolescents via parental monitoring. The more involved parents or guardians are—especially with respect to how often they know where their adolescent daughters and sons are—the less likely unmarried adolescents are to be sexually-active. Parent-child communication about sexual issues in these four African countries is less relevant to adolescent sexual activity than interventions to increase parental supervision and involvement in their children's lives. Given the relatively low-level of parent-child communication about sex-related matters that currently exists and other studies that highlight the difficulties adolescents (and parents) have with open communication about sexuality and its weak influence on actual adolescent sexual and reproductive health outcomes, focusing efforts on parental involvement instead of communication may also be more promising.

References

- Ampofo AA, When men speak women listen: Gender socialization and young adolescents' attitudes to sexual and reproductive health issues, *African Journal of Reproductive Health*, 2001, 5(3):196-212.
- Amunyunzu-Nyamongo M, Biddlecom AE, Ouedraogo C and Woog V, *Qualitative Evidence on Adolescents' Views of Sexual and Reproductive Health in Sub-Saharan Africa*, Occasional Report, New York: The Alan Guttmacher Institute, 2005, No. 16.
- Babalola S, Tambashe BO and Vondrasek C, Parental factors and sexual risk-taking among young people in Cote d'Ivoire, *African Journal of Reproductive Health*, 2005, 9(1):49-65.
- Bettinger JA, Celentano DD, Curriero FC, Adler NE, Millstein SG and Ellen JM, Does parental involvement predict new sexually transmitted diseases in female adolescents?, *Archives of Pediatrics and Adolescent Medicine*, 2004, 158:666-670.
- DiClemente RJ, Wingood GM, Crosby R, Sionean C, Cobb BK, Harrington K, Davies S, Hook III EW and Oh MK, Parental monitoring: Association with adolescents' risk behaviors, *Pediatrics*, 2001, 107(6): 1363-1368.
- Joint United Nations Programme on HIV/AIDS (UNAIDS), *2006 Report on the Global AIDS Epidemic*, Geneva, 2006.
- Karim AM, Magnani RJ, Morgan GT and Bond KC, Reproductive health risk and protective factors among unmarried youth in Ghana, *International Family Planning Perspectives*, 2003, 29(1):14-24.
- Kiragu K, Obwaka E, Odallo D and Van Hulzen C, Communicating about sex: Adolescents and parents in Kenya, *AIDS/STD Health Promotion Exchange*, 1996, 3:11-3.
- Kirby D and Miller BC, Interventions designed to promote parent-teen communication about sexuality, *New Directions for Child and Adolescent Development*, 2002, 97:93-110.
- Li X, Feigelman S and Stanton B. Perceived parental monitoring and health risk behavior among urban low-income African American children and adolescents, *Journal of Adolescent Health*, 2000, 21:43-48.
- Ngom P, Magadi MA and Owuor T, Parental presence and adolescent reproductive health among the Nairobi urban poor, *Journal of Adolescent Health*, 2003, 33(5):369-77.
- Tweedie I and Witte K, *Ghana Youth Reproductive Health Survey Report*, Accra, Ghana: Ghana Social Marketing Foundation, 2000.

Table 1. Percentage distribution of unmarried 12-19-year-olds and percentage who had sexual intercourse in the last 12 months, all by categories of background characteristics, according to sex and country, National Survey of Adolescents, 2004

Characteristic	Burkina Faso				Ghana				Malawi				Uganda			
	Female		Male		Female		Male		Female		Male		Female		Male	
	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex	% dist.	% had sex
Living arrangements																
Lives with both parents/parent-figures	59.3	10.7*	63.5	14.1*	41.5	7.1**	44.7	4.1***	43.9	8.9	47.8	23.7	43.7	9.1***	44.1	17.5
Lives with mother	8.2	16.7	8.4	19.4	24.1	12.5	22.2	4.1	21.0	10.3	19.8	29.6	18.3	15.2	19.4	20.4
Lives with father	5.3	13.0	7.9	18.0	4.8	11.9	9.0	10.1	4.6	5.9	4.8	29.2	9.2	16.3	10.5	19.2
Lives with no parents/parent-figures	27.2	14.5	20.3	17.9	29.6	11.6	24.1	9.6	30.5	11.9	27.7	28.1	28.8	15.9	26.0	21.9
Parents/guardians know where adolescent goes out at night																
No	6.1	38.8***	15.3	34.0***	5.2	34.9***	9.2	15.8***	21.1	11.8	27.5	39.1***	9.7	28.2***	19.0	38.0***
Sometimes	12.6	31.2	25.5	23.0	17.9	20.1	29.7	9.0	20.3	10.4	21.8	33.7	13.0	31.3	23.6	26.3
Always	81.2	7.5	59.1	7.7	76.9	5.7	61.1	3.0	58.6	9.2	50.7	16.3	77.3	7.8	57.4	10.3
Parents/guardians know what adolescent does with free time																
No	9.9	17.3***	14.4	26.6***	5.8	22.8***	9.9	10.5***	19.0	9.1	18.7	36.3***	10.2	25.4***	16.5	34.7***
Sometimes	32.9	20.1	47.4	17.6	21.3	19.6	35.3	8.0	23.8	10.0	32.1	29.7	20.6	22.8	32.0	24.7
Always	57.2	7.1	38.1	9.0	72.8	6.0	54.8	3.6	57.2	10.2	49.2	20.4	69.1	8.0	51.5	11.2
Parents/guardians know who adolescent's friends are																
No	8.1	18.0***	8.2	23.7***	8.4	19.3***	8.7	7.8***	15.3	10.3	12.8	30.4***	14.7	24.7***	16.1	27.9***
Sometimes	20.2	21.3	26.0	22.0	20.8	14.9	34.9	8.3	17.0	10.2	38.9	30.3	19.8	19.9	40.0	21.7
Always	71.8	9.2	65.8	12.1	70.9	7.2	56.4	4.1	67.8	9.9	48.3	22.1	65.5	8.0	43.9	14.2
Mother or father has ever talked to adolescent about sex-related matters																
No	89.6	11.5***	94.2	15.0***	65.6	9.0	80.1	5.8	75.8	9.6	78.9	24.6***	66.7	10.9***	80.9	19.1
Yes	10.4	19.9	5.8	25.4	34.4	11.5	19.9	6.6	24.2	11.2	21.1	33.2	33.3	16.5	19.1	20.3
N (unweighted)	2,547		3,002		2,111		2,213		1,830		2,040		2,354		2,479	

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

Table 2. Odds ratios from multivariate analyses of full logistic regression models showing likelihood of having sex in the last 12 months among unmarried 12-19-year-olds, by sex and country, 2004 National Survey of Adolescents

Variable	Burkina Faso		Ghana		Malawi		Uganda	
	Females	Males	Females	Males	Females	Males	Females	Males
Age (in years)	4.90 ***	3.49 ***	3.79 ***	3.51 ***	3.32 ***	2.13 ***	2.68 ***	2.38 ***
Currently in school (ref=not in school)	0.62 **	0.59 ***	0.33 ***	0.50 **	0.36 ***	0.51 ***	0.33 ***	0.55 ***
Living arrangements								
Lives with both parents/parent-figures (ref=lives with no parents/parent-figures)	0.72 *	0.73 *	0.81 *	0.61 *	0.80	0.94	0.68 *	1.05
Lives with mother	1.00	0.91	1.55 *	0.50 *	0.71	1.10	1.08	1.18
Lives with father	0.65	0.92	1.28	1.44	0.46	1.26	1.38	1.27
Parental/guardian monitoring								
Parents/guardians know where adolescent goes out at night (1=no, 2=sometimes, 3=always)	0.37 ***	0.48 ***	0.38 ***	0.49 ***	0.73 **	0.63 ***	0.60 ***	0.59 ***
Parents/guardians know what adolescent does with free time (1=no, 2=sometimes, 3=always)	0.74 **	0.89	0.75 *	0.92	1.20	0.85 *	0.81	0.77 **
Parents/guardians know who adolescent's friends are (1=no, 2=sometimes, 3=always)	0.92	0.75 **	0.78	0.88	0.94	0.95	0.66 ***	0.95
Parent ever talked about sex-related matters	1.32	1.74 *	1.39	1.14	1.00	1.53 **	1.77 ***	1.06
Intercept	1.45	0.99	1.98 **	0.26 **	0.14 ***	1.22	1.94 *	1.04
N (unweighted)	2,546	2,996	2,049	2,207	1,829	2,036	2,348	2,474

Notes: Adjusted odds ratios (Exp[β]) are presented.

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