The Relationship Context of Adolescent Fertility in Southeastern Ghana

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BACKGROUND

Limiting unwanted adolescent fertility is a priority for health and development goals. A large body of literature has critically assessed a number of social, economic and behavioral determinants of adolescent fertility across different settings in sub-Saharan Africa including poverty, early age of marriage, low educational attainment(Mensch et al), limited access to sexual and reproductive health information and services (E.O. Tawiah, 2002), and unequal gender dynamics in relationships (Varga, 2003). While adolescent fertility still often occurs within marriage in sub-Saharan Africa, this is increasingly not the case. In many contexts, including Southeastern Ghana, the age of marriage is increasing while the age of sexual initiation is not, resulting increased risk of premarital adolescent fertility. Alongside these demographic changes are important social ones: While a few generations ago relationships were heavily guided and regulated by older kin; increasingly relationships are initiated and maintained by young men and women themselves (Smith, 2001). Within this changing environment it is important to understand the types of partners and characteristics of relationships that lead to adolescent fertility toward mitigating unwanted fertility in appropriate ways.

In this paper, we address several features of adolescent girls' romantic and sexual relationships that may influence the risk of adolescent fertility. We consider three *partner type* variables: age relative to the female respondent, school status, and employment status. We hypothesize that relationships with older, out-of-school, employed partners may be more likely to result in adolescent fertility than relationships with similar age, in-school, and unemployed partners. We also consider four *relationship process* variables: basic financial support and auxiliary support provided by the partner, the partner's power over the respondent, and the degree of emotional investment in the relationship. Research on age-disparate relationships (sometimes coined as 'sugar-daddies') suggests that young women have little negotiating power in relationships with older men of relatively greater wealth and social standing (Luke, 2003). It could also be argued that such partners are highly marriageable because of their ability to provide financial support and the possibility of a better life. Adolescent girls may therefore become more emotionally invested in relationships with older, financially secure partners (Mojola, 2014). And pregnancy and childbirth may be a means that either or both partners use to solidify the relationship (Ankomah, 1998). We therefore hypothesize not only that these relationship process variables may influence the likelihood of adolescent fertility, but also that they may mediate the effects on adolescent fertility of partner type variables.

METHODS

Sample and Data Collection Procedures. Data for this paper come from female participants in the Gendered Social Contexts in Ghana longitudinal study. In July and August 2010 (Wave 1), field teams interviewed a random sample of unmarried girls and boys aged 13, 14, 18, and 19 in two periurban communities in southeastern Ghana (75% response rate). Wave 2 interviews were conducted in March and April 2012, and Wave 3 interviews were conducted in July 2013. The bulk of the data presented here come from the relationships modules included in

the Wave 3 interviews. In these modules, respondents provided detailed information on up to three romantic or sexual relationships (their first, second, and third or most recent). Wave 3 interviews were completed with n=605 female respondents (86.4% of the original sample), of whom 298 provided detailed information on one or more relationships. Our analytical dataset includes 353 relationships which began when the respondent was a nulliparous adolescent.

Measures. Our dependent variable is *adolescent fertility* which we define as either having a live birth before age 20, or being currently pregnant and less than 20 years old. The relationship modules at Wave 3 included the questions, "Have you ever been pregnant by this partner?" and "Have you ever had any children with this partner?" Of the 353 eligible relationships, 62 resulted in adolescent fertility (57 teenage births and five current teenage pregnancies). Our independent variables include three partner type dummies. We derived the variable *older partner* from answers to the question, "Is that partner five or more years older than you?" We derived *in-school partner* from answers to the question, "When this relationship began, was that partner attending school?" And we derived *employed partner* from answers to the question, "When this relationship began, was that partner employed?" We also examine four relationship process varaibles. *Basic financial support* is a dummy variable derived from answers to the question, "To what extend did this partner provide money or support for your basic needs like food, simple clothing, or a place to live." *Auxiliary support* is a dummy variable derived from answers to the question, "To what extend did this partner ever give you gifts or money for things you wanted beyond your basic needs?" *Power disparity* is a scale score (Cronbach's α=0.76) derived from seven items from the Sexual Relationship Power Scale (Pulerwitz, Gortmaker, & DeJong, 2000). *Emotional investment* is a scale score (α=0.78) derived from answers to four questions about closeness, trust, and love in the relationship.

Analyses. Our analysis consists of three stages. In the first stage we obtain descriptive statistics on all seven independent variables, overall and by adolescent fertility status. We also examine the bivariate associations between each of these independent variables and adolescent fertility status using logistic regression. In the second stage we use (a) logistic regression to examine the effects of older partner, in-school partner, and employed partner on basic financial support and auxiliary support; and (b) linear regression to examine the effects of older partner, in-school partner, employed partner, basic financial support, and auxiliary support on power disparity and emotional investment. These analyses reflect our conceptual model in which partner type factors influence relationship process variables. In the third and final stage we use a series of logistic regression models to estimate the overall and direct (unmediated) effects of partner type and relationship process variables on the odds of adolescent fertility occurring within the relationship. All analysis use robust standard errors to adjust for possible autocorrelation between multiple relationships reported by the same respondent.

RESULTS

Of the 605 female respondents in our Wave 3 sample, 71 (11.7%) were categorized as having experienced adolescent fertility. This included 28 (7.4%) of the 380 respondents who were still in their teens at the time of the interview, and 43 (19.1%) of those who were no longer in their teens. Of these instances of adolescent fertility, respondents described 51 (71.8%) as events that "just happened," whereas in 9 cases (12.7%) the respondent said that she wanted to get pregnant, and in 6 cases (8.5%) the respondent attributed the pregnancy to rape. And 32 (45.1%) of the girls reporting adolescent fertility also reported that getting pregnant was the primary reason for their leaving school. Nine of the respondents who experienced adolescent

fertility provided no information about any romantic or sexual relationship, and thus are not included in subsequent analyses.

Table 1 presents the distributions of the seven independent variables, overall and by adolescent fertility status. The slight majority of adolescent fertility occurred in relationships with older partners, and having an older partner was associated with an increased risk of adolescent fertility. Many instances of adolescent fertility occurred in relationships with in-school partners, but having an in-school partner was associated with a decreased risk of adolescent fertility. Respondents reported receiving basic financial and auxiliary support from the vast majority of their partners, and basic support was associated with a large increase in the risk of adolescent fertility. Greater power disparity was associated with in increased risk of adolescent fertility.

Table 2 examines relationships among the independent variables. Results in the first two columns show that older and employed partners are more likely to provide basic financial support and auxiliary support. Figures in the third and fourth columns indicate that greater power disparities occur in relationships with older partners, and that power disparity is positively associated with auxiliary support. Data in columns five and six suggest that the following factors are associated with higher levels of emotional investment in relationships: the partner being in school, the partner being employed, and receiving basic and auxiliary support from the partner.

Results from logistic regression models predicting of adolescent fertility are presented in Table 3. Across specifications, the strongest and most consistent findings are that basic financial support and power disparities are associated with an increased risk of adolescent fertility. Additionally, relationships with in-school partners appear to be less likely than relationships with out-of-school partners to result in adolescent fertility.

DISCUSSION

Our findings confirm the importance of power dynamics in predicting fertility; critically address the importance of age difference in relationships, and raise new considerations regarding the role, meaning and significance of relationships characterized by financial support. We will discuss the interpretation of these findings in light of literature suggesting the inextricable nature of love and money in romantic relationships in sub-Saharan Africa (Mojola, 2014; Poulin, 2007); and in addition consider the protective effect of in-school partners. Finally, we will examine how these different relationship dimensions map on to other related fertility outcomes including whether the respondent suggests a pregnancy 'just happened,' or was desired, or whether it meant she had to leave school to further examine the implications of these relationship dimensions on fertility outcomes.

Table 1. Distribution of Independent Variables, Overall and by Occurrence Adolescent Fertility

		Overall (n=373)	No Fertility (n=291)	Fertility (n=62)	OR
Block 1:	Older Partner (%)	44.3	41.7	56.5	1.81 *
	In School Partner (%)	59.1	62.1	45.2	0.50 *
	Employed Partner (%)	42.4	41.0	49.2	1.39
Block 2:	Basic Financial Support (%)	83.5	81.0	95.2	4.60 *
	Auxiliary Support (%)	86.4	85.5	90.3	1.58
Block 3:	Power Disparity (Mean)	0.00	-0.06	0.31	1.48 **
	Emotional Investment (Mean)	0.00	0.00	0.01	1.01

Note: The Power Disparity and Emotional Investment scales are standardized (mean=0.0, SD=1.0). Odds ratios (ORs) measure the association between each independent variable and the risk of adolescent fertility. $^{***}p<.001$, $^{**}p<.01$, $^{*}p<.05$, $^{\dagger}p<0.10$.

Table 2. Relationships between Blocks of Independent Variables

	Dependent Variables From Block 2		Dependent Variables from Block 3			
	Basic	Auxiliary	Power Disparity		Emotional Investment	
Older Partner	2.14*	2.59*	0.40**	0.31**	-0.16	-0.17
In-School Partner	1.07	1.55	0.27†	0.25†	0.33†	0.31†
Employed Partner	3.67*	2.97†	0.25†	0.16	0.35*	0.23
Basic Financial Support				0.21		0.57**
Auxiliary Support				0.62**		0.19

Notes: Logistic regression was used for models predicting Basic Financial Support and Auxiliary Support; tabulated numbers adjusted odds ratios. Linear regression was used for models predicting Power Disparity and Emotional Investment; tabulated numbers are mean differences. $^{***}p<.001$, $^{**}p<.01$, $^{*}p<.05$, $^{\dagger}p<0.10$.

Table 3. Adjusted ORs from Models Predicting Adolescent Fertility within the Relationship

	Model 1	Model 2	Model 3	Model 4	Model 5
Older Partner	1.52	1.46	1.27	1.25	1.19
In-School Partner	0.42*	0.39*	0.36*	0.37*	0.42†
Employed Partner	0.67	0.56	0.60	0.54	0.61
Basic Financial Support		5.73**		5.51**	5.22**
Auxiliary Support		0.62		0.52	0.51
Power Disparity			1.58**	1.52**	1.48*
Emotional Investment			0.91	0.85	0.86

Note: With the exception of Model 5, each model includes only the independent variables for which adjusted odds ratios are displayed. Model 5 includes additionally five dummy indicators representing different categories of relationship duration. $^{***}p<.001$, $^{**}p<.01$, $^{*}p<.05$, $^{\dagger}p<0.10$.

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