

Title:

Impact of Attitudes Toward Premarital Sex and Adolescent Pregnancy on Contraceptive Knowledge and Utilization: Do Families and Neighborhoods' Characteristics Work?

EXTENDED ABSTRACT

Background and objectives

Recent data in Sub-Saharan Africa show that age at sexual debut declined (Kuate-Defo 1998). Conversely, age at first marriage is increasing, then leaving an important gap for premarital sex and attached negative outcomes such as unintended pregnancies and STD/HIV/AIDS. In all societies around the world, it is well established that attitudes toward sexuality shape contraceptive knowledge and use. In that vein, a series of KABP-surveys around the world aimed to measure the levels of contraceptive knowledge and determine attitudes toward contraception. Unfortunately, attitudes have been addressed as a whole and unique concept focusing on contraception. In this study, we address specifically attitudes toward premarital sex and adolescent pregnancy which assumed to influence contraceptive knowledge and use. The typology that we use to address this issue is illustrated in the following chart.

ADOLESCENT
PREGNANCY

	Costs	Benefits	
PREMARITAL SEXUALITY	Costs	A	B
	Benefits	C	D

We assume that the interests of young people about contraceptive knowledge and use vary considerably with respect to their attitudes toward premarital sexuality and adolescent pregnancy. For instance, using optimistic bias, youth who perceive costs for both premarital sexuality and adolescent pregnancy will be less knowledgeable of contraceptive methods because they thought they are less exposed to adolescent pregnancy. Consequently, knowledge contraceptive as a way of pregnancy prevention may be of less importance for them: "pregnancy cannot happen to us". On the other hand, those who are sexually active will be more prompt to use contraceptive methods due to a high level of awareness of negative social and health consequences attached to adolescent pregnancy. Furthermore, attitudes had been associated with safe behavior such as condom use.

Theoretically, attitudes had been identified in the Health Belief Model and the Theory of Reasoned Action, among others, as a crucial component in the process of decision-making (Deptula et al. 2006; Gage 1998). Notwithstanding the contribution of such theories, their individualistic approaches constitute a major limit because they implicitly assume that young people act in isolation. This study extends previous studies and assumes that beyond individual's attitudes toward sexuality, family structure and family processes on the one hand, and neighborhoods' characteristics on the other hand are potential factors in determining contraceptive knowledge and use as suggested elsewhere (Brewster 1994; Brewster et al. 1993; Kauffmann et al. 2004; Stephenson et al. 2007). In brief, we argue that contraceptive knowledge and use is shaped by multiple factors of various levels because values and practices at the community level present to youth a set of ideologies and behaviors which they may subsequently reproduce as individual's choices, attitudes and behaviors.

Data sources and analytical plan

Using data collected in 2002 by the Population Observatory in Social Epidemiology (POSE) in Bandjoun (West Cameroon), we describe contraceptive knowledge and use with respect to attitudes toward premarital sexuality and adolescent sexuality. Data are from a representative sample of 10-years and over in which a sub-sample (2,207) of 10-29 years old never married, clustered in 1765 households and 45 neighborhoods is considered for analyses. As regard to statistical techniques, we use multilevel modelling (OLS and Logit) to capture the effects of individual/household and neighborhood's variables on the variable of interest, using the following equations:

$$\text{Level-1 model: } y_{ij} = \beta_{0j} + \beta_{1j}x_{ij} + e_{ij} \quad (1)$$

and level-2 model: $\beta_{0j} = \beta_0 + u_j$ (2) for OLS estimation in which u_{0j} and e_{ij} are assumed to be normally distributed with mean zero and variance σ^2_{u0} and σ^2_{e0} respectively while y_{ij} is the total knowledge of any method or that of modern methods. For the binary outcome (use of contraception to prevent pregnancy), we used a multilevel logistic equation in the general form: $\text{logit}(\pi_{ij}) = \beta_{00} + \beta_{p0}X_{p ij} + \beta_{0q}Z_{qj} + \mu_{0j}$ (3)

where μ_{0j} is normally distributed and Y_{ij} is assumed to be independent Bernoulli random variables with the probability of contraceptive use $\pi_{ij} = \Pr(Y_{ij}=1)$.

Preliminary results

Figure 1 describes attitudes of young people toward sexuality. Overall, 40 % of young people perceive costs for both premarital sexuality and adolescent pregnancy, and results indicate gender differences (43 % of females vs. 36 %). Surprisingly, females are also more likely to perceive benefits of both premarital sexuality and adolescent pregnancy (9 % of females vs. 8 % of males). Other young people had mixed attitudes toward premarital sexuality and adolescent pregnancy, perceiving simultaneously costs and benefits. Another interesting question which arises from figure 1 is whether young people perceive threat of adolescent pregnancy with respect to their attitudes about premarital sexuality. One would expect a consistent awareness of premarital sexuality and adolescent pregnancy but results indicate that young people view differently premarital sexuality and adolescent pregnancy. Of those who perceived costs of premarital sexuality (results not shown), more than half (55.1 %) thought that adolescent pregnancy may be avoided. More than two-third (68 %) of those who perceived benefits of premarital sexuality thought that there are rationales to prevent adolescent pregnancy.

Table 1 describes the knowledge contraceptive and use, and in some extent sexual behavior among young people with respect to their attitudes toward premarital sexuality and adolescent pregnancy. Results indicate that whatever the contraceptive method, young people who perceive benefits of premarital sexuality are more knowledgeable than others. For instance, respectively 24 % and 38 % know the pill in costs and benefits strata according to premarital sexuality. More often, females are more knowledgeable than males with some exceptions. Conversely, attitudes toward adolescent pregnancy show that those who perceived costs are less knowledgeable than their counterparts. Other results indicate that young people who perceive costs of premarital sexuality and benefits of adolescent pregnancy are less knowledgeable of contraceptive methods, but tend to be more sexually inexperienced. They are also less likely to use contraception explicitly to prevent pregnancies. Indeed, 6 % (vs. 26 %) of those who perceive costs of premarital sexuality used recently a contraceptive method in the purpose to prevent pregnancy.

These preliminary results suggest that young people in some extent view differently consequences attached to premarital sexuality than adolescent pregnancy. It is also possible that premarital sexuality which allows generally more peer's influences is a different stage of decision-making than is adolescent pregnancy. Indeed, benefits attached to premarital sexuality are easily rationale among peers than in the whole society. For instance, showing sexual capacity, needing for love and affection, and keeping his/her relationship are among others reasons cited to justify premarital sexuality. While adolescent pregnancy is attached to some events which can jeopardize life expectations such as school disruption, breaking religious norms and illness (STD/HIV/AIDS). Then attitudes on adolescent pregnancy may be seen at a glance more costly than

premarital sexuality although it has been shown that sexual initiation can also have many negative outcomes per se.

Future analysis and expected findings

The next step considers our analytical framework assuming that young people build their attitudes, and contraceptive knowledge and use according to social norms, family structure and processes and neighborhoods' characteristics. To achieve this goal, we use multilevel analysis with MLWin (Goldstein 2003).

We expected to observe strong associations with family structure and family processes (parent-child communication, parental supervision, and parent-child closeness), and neighborhoods' characteristics (community socioeconomic index, access to the nearest health center, counselling on contraceptive methods at the center, delivery of contraceptive methods) beyond other individual's socio-demographic characteristics (age, gender, religious affiliation, religiosity, peer-adolescent communication, religiosity). The study also assumes that family processes vary across the lifetime. Thus, communication, supervision and closeness with parents are important lifetime indicators which take into account for the variation which may be observed.

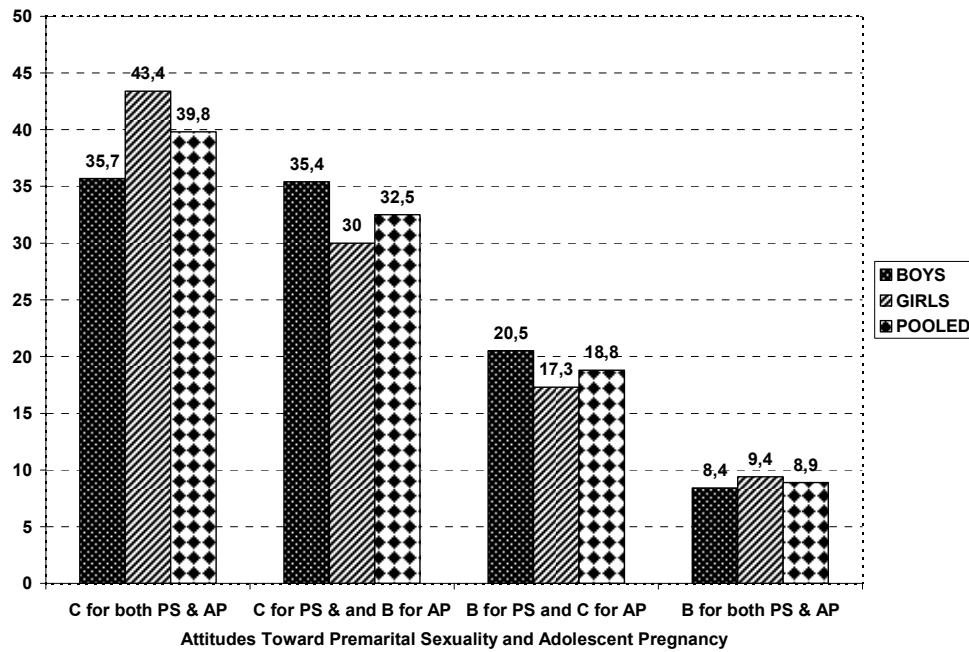
Conclusions

Contraceptive knowledge and use had been widely documented. Further, family's and community's influences had been documented with respect to sexual behaviour. To date, little is known on their influences on contraceptive knowledge in presence of attitudes toward premarital sexuality and adolescent pregnancy. Results of the study will be an important starting point for more effective health reproductive programs in Sub-Saharan Africa by highlighting the role of families and communities in African settings on the construction of contraceptive knowledge and use.

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Figure 1: Attitudes Toward Premarital Sexuality and adolescent Pregnancy by Gender



Source: CFHS-2002

Table 1: Attitudes toward premarital sexuality and adolescent pregnancy, and contraceptive knowledge and use by Gender (Bandjoun, 2002)

Contraceptive Methods (% YES)	COSTS AND BENEFITS OF PREMARITAL SEX								COSTS AND BENEFITS OF ADOLESCENT PREGNANCY							
	COSTS				BENEFITS				BENEFITS				COSTS			
	M	F	T	χ^2	M	F	T	χ^2	M	F	T	χ^2	M	F	T	χ^2
Pill	16.3	30.2	23.9	42.1 ***	34.8	41.3	38.1	2.7 ns	10.9	22.8	17.0	22.9 ***	30.0	39.9	35.5	13.5 ***
UID	2.2	3.6	2.9	2.6 ns	6.1	9.8	8.0	2.9 *	2.2	2.2	2.2	0.0 ns	4.2	7.3	5.9	5.5 **
Injection	5.4	7.0	6.3	1.9 ns	10.8	13.7	12.3	1.1 ns	5.8	6.7	6.2	0.3 ns	7.8	10.2	9.1	2.2 ns
Diaphragm	4.9	8.5	6.9	7.9 ***	12.5	12.1	12.3	0.0 ns	3.6	6.2	4.9	3.5 *	9.9	11.6	10.8	0.9 ns
Condom	56.8	60.9	59.0	2.7 *	85.1	76.8	80.9	6.8 ***	50.1	49.3	49.7	0.1 ns	76.6	75.5	75.9	0.2 ns
Norplant	4.5	7.0	5.9	4.5 **	7.8	9.2	8.5	0.4 ns	4.0	5.0	4.5	0.5 ns	6.6	9.3	8.1	3.2 *
Rythm	11.5	28.0	20.5	66.2 ***	29.1	49.8	39.8	27.5 ***	10.5	23.4	17.1	27.2 ***	21.4	40.6	32.0	54.2 ***
Abstinence	35.7	44.8	40.6	13.5 ***	56.4	60.0	58.3	0.8 ns	29.4	35.5	32.5	3.9 **	51.2	57.5	54.7	5.1 **
Withdrawal	4.5	7.4	6.1	5.7 **	16.2	14.3	15.2	0.4 ns	4.7	6.2	5.5	1.1 ns	10.4	11.2	10.8	0.2 ns
Male sterilisation	4.7	5.4	5.1	0.5 ns	11.5	10.8	11.1	0.1 ns	3.3	3.4	3.4	0.0 ns	9.2	9.1	9.1	0.0 ns
Female sterilisation	4.0	7.4	5.8	8.4 ***	10.8	13.3	12.1	0.9 ns	3.3	5.6	4.5	2.7 ns	8	11.2	9.7	3.7 *
Vaginal douche	1.5	3.9	2.8	8.4 ***	3.0	8.3	5.7	7.7 ***	1.3	3.4	2.4	4.3 **	2.4	6.1	4.5	10.2 ***
>=2 sexual partners (last 12 months)	2.9	4.0	3.5	1.6 ns	28.4	14.9	21.3	15.7 ***	6.0	7.1	6.6	0.4 ns	13.4	6.8	9.7	15.5 ***
Contraceptive Use for Pregnancy Prevention	24.9 ***				22.0 ***				15.0 ***				31.7 ***			
Not sexually experienced	86.0	79.5	82.5		37.8	36.2	37.0		84.4	75.7	80.0		62.5	62.9	62.7	
Sexually experienced																
No method	4.5	8.1	6.5		13.5	23.5	18.7		5.1	11.4	8.3		8.7	12.7	10.9	
Use a method for IST	5.9	4.4	5.1		24.3	12.1	18.0		6.0	6.2	6.1		15.2	6.6	10.4	
Use a method for pregnancy	3.4	8.1	6.0		24.3	28.3	26.4		4.5	6.7	5.6		13.5	17.9	15.9	
Total	100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N° of cases	729	867	1,596		296	315	6111		449	465	914		576	717	1,293	

Legend : M = Males; F = Females; T = Total