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CLINICAL ARTICLE

Reproductive experiences of teenagers in the Ejisu-Juabeng district of Ghana

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ABSTRACT

Objective: To determine the proportions of male and female teenagers aged 15–19 years who have ever been involved in pregnancy, and to examine factors associated with involvement in teenage pregnancy in the Ejisu-Juabeng district of Ghana. *Methods:* In a household-based cross-sectional survey, 481 randomly selected male and female teenagers were enrolled between August 3 and September 17, 2009. Study variables included demographics; sexual exposure; contraceptive use; and involvement in pregnancy, childbirth, and induced abortion. Multivariable multinomial logistic regression analyses were used to examine the association between involvement in pregnancy, and the background and reproductive profiles of the respondents via SPSS version 16.0. *Results:* Both the mean and median ages of the respondents were 17.2 years. One-third of respondents lived with both parents, and one-third lived with single mothers. The median age of sexual debut was 16.0 years. Approximately 58% of sexually experienced females had been pregnant, and 37% had had an induced abortion. Age at sexual debut, gender, and being out of school were significantly associated with involvement in teenage pregnancy, whereas residential status, relationship with first partner, and contraceptive use were not. *Conclusion:* Keeping adolescents enrolled in school might reduce their risk of involvement in pregnancy in the Ejisu-Juabeng district of Ghana.

1. Introduction

Adolescent pregnancy is a recognized public health problem that has diverse consequences for the individual adolescent, the family, and society at large [1]. In resource-poor settings, adolescent pregnancy is commonly associated with high rates of unsafe abortion, maternal and child morbidity and mortality, early motherhood, and psycho-social problems [2]. Pregnant adolescents often experience social stigma, and domestic violence including psychologic abuse by parents, partners, and other members of the society in which they live [3,4].

Adolescent sexuality is also associated with an increased risk of acquiring sexually transmitted infections [5]. Also worrisome is the observation that complications of pregnancy are the leading contributors to death among young women aged 15–19 years in some low-resource countries [6,7].

Several factors contribute to pregnancy among adolescents. In a qualitative study in Odumasi in Ghana, Keller et al. [8] identified poverty, early sexual activity, and contraceptive non-use as the main risk factors for teenage pregnancy. Similarly, in a case–control study of teenage pregnancy in South Africa, Vundule et al. [9] found that low economic status, sexual frequency, contraceptive non-use, forced sexual initiation, and not living with the biologic father were risk factors [9].

Intervention programs to reduce the rate of adolescent pregnancy have been tried in many societies. Nevertheless, there is unconvincing evidence on the most effective way of addressing the problem [10–12]. A combination of keeping young people in school and promoting adolescent contraceptive use has been found to reduce the rate of unintended adolescent pregnancy [12]. Biddlecom et al. [13] also demonstrated that being in school was protective against involvement in premarital sex among both boys and girls in Ghana.

In Ghana, youth development programs, including the promotion of adolescent reproductive health and the Free Compulsory Universal Basic Education (FCUBE) program, do exist. Moreover, in the social studies program of basic schools, some sex education is given under the subject of "family life". Nevertheless, adolescent pregnancy remains a public health problem in the country [14].

In the 2008 annual report of the Ejisu-Juabeng municipality—a fast growing district near Kumasi, the second largest city in Ghana—it was contended that reporting of teenage pregnancy among the health facilities of the district was increasing (unpublished data). Assessing the magnitude of the problem, in addition to identifying modifiable local factors associated with it, is needed to adopt feasible and acceptable interventions.

The present study therefore sought to determine the proportions of male and female teenagers aged 15–19 years who had ever been involved in pregnancy, and to examine factors associated with involvement in teenage pregnancy in the Ejisu-Juabeng district of Ghana.

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2. Materials and methods

The present cross-sectional survey was carried out between August 3 and September 17, 2009, and involved male and female teenagers aged 15–19 years who had lived in Ejisu-Juabeng district for at least 6 months. Ethics approval was obtained from the Committee on Human Research, Publications and Ethics of the Kwame Nkrumah University of Science and Technology, School of Medical Sciences, and Komfo Anokye Teaching Hospital Kumasi, Ghana. Informed consent was obtained for each teenager before participation in the study.

Ejisu-Juabeng has 5 sub-districts, from which 12 communities were randomly selected. On the basis of the population, a proportionate allocation of 40–60 households per community was made. Household compounds or blocks were selected by systematic random sampling. A respondent per household per block was selected by simple random sampling. For gender balance, male and female respondents were recruited alternately.

On the basis of the estimated national rate of involvement of female teenagers in pregnancy (47.5%) and a confidence interval (CI) of 95%, a minimum sample size of 423 was determined via the StatCalc program of Epi Info version 6 (Centers for Disease Control and Prevention, Atlanta, GA, USA) [15].

Data collection was planned to coincide with the long vacation period of junior and senior high schools in order to capture both in-school and out-of-school teenagers in their homes. To improve information yield on sensitive issues such as sexual exposure, and involvement in pregnancy, childbirth, and induced abortion, same-gender interviews were conducted by young community health nurses and health education officers. To minimize interviewer bias and to improve the uniformity of obtaining information, particularly in translating questions into the local dialects, each research assistant was trained and participated in pretesting of the questionnaires.

After informed consent was obtained, each respondent was interviewed in privacy. As per review board requirement, verbal consent was obtained from a parent or person *in loco parentis* for respondents who were younger than 18 years before the interview was conducted.

The study variables included demographics; sexual and reproductive experiences, including sexual debut, circumstances surrounding sexual debut and contraceptive use; and involvement in pregnancy, childbirth and induced abortion.

Involvement in pregnancy referred to ever having been pregnant for females, or ever making a girl pregnant for males. Similarly, involvement in abortion referred to ever having an induced abortion for females, or ever causing a pregnancy that ended in induced abortion for males. Modern contraceptives included natural methods and recognized medication or devices that are used for pregnancy prevention.

Data analysis was performed via SPSS version 16.0 (IBM, Armonk, NY, USA). The data were summarized by descriptive statistics. Bivariate and multivariable multinomial logistic regression analyses of the association between involvement in pregnancy, and the background characteristics and reproductive experiences of sexually exposed teenagers were done together and separately for male and female respondents. Odds ratios (ORs) were estimated at 95% CI; a P value of 0.05 or less was considered statistically significant.

3. Results

The study recruited 481 teenagers. Of these, 54.9% were females, the mean ± SD age was 17.2 ± 1.4 years, and the median age was 17.2 years. The mean age of male and female respondents was similar. 52.2% of the respondents were enrolled in school. Although similar proportions of male and female respondents were in school, more females than males were out of school. Most (87.3%) of the respondents had completed at least middle or basic school education. One-third of the respondents lived with both parents, and one-third lived with single mothers. The residential status of male and female respondents was similar. Regarding care and support, however, one-third of the respondents depended on both parents, and 9.4% were self-supporting.

At the time of the survey, 25 respondents were married and 5 were divorced. Among the 30 who had ever been married, 80%

Table 1
Background characteristics of the study respondents.[a]

Variable	Female (n = 264)	Male (n = 217)	Total (n = 481)
Out of school			
Yes	140 (53.0)	90 (41.5)	230 (47.8)
No	124 (47.0)	127 (58.5)	251 (52.2)
Age, years	17.2 ± 1.3	17.3 ± 1.4	17.2 ± 1.4
Residential status			
Both parents	90 (34.1)	76 (35.0)	166 (34.5)
Mother only	92 (34.8)	66 (30.4)	158 (32.8)
Father only	10 (3.8)	15 (6.9)	26 (5.2)
Other relatives	72 (27.3)	60 (27.6)	132 (27.4)
Care and support status			
Both parents	92 (34.8)	75 (34.6)	167 (34.7)
Mother only	72 (27.3)	59 (27.2)	131 (27.2)
Father only	27 (10.2)	27 (12.4)	54 (11.2)
Other relatives	54 (20.5)	30 (13.8)	84 (17.5)
Level of education completed			
None	17 (6.4)	16 (7.4)	33 (6.9)
Primary	21 (8.0)	7 (3.2)	28 (5.8)
Junior high school	163 (61.7)	145 (66.8)	308 (64.0)
Senior high school	63 (23.9)	49 (22.6)	112 (23.3)
Marital status			
Not married	240 (90.9)	211 (97.2)	451 (93.8)
Married	24 (9.1)	6(2.8)	30 (6.2)
Ever had sexual intercourse			
Yes	166 (62.9)	112 (51.6)	278 (57.8)
No	98 (37.1)	105 (48.4)	203 (42.2)

[a] Values are given as number (percentage) or mean ± SD.

Table 2
Reproductive exposure of sexually experienced respondents.[a]

Variable	Female (n = 166)	Male (n = 112)	Total (n = 278)
Mean age at sexual debut, years	16.0 ± 1.5	16.1 ± 1.8	16.0 ± 1.6
Median age at sexual debut, years	16.0	16.0	16.0
Sexual debut in courtship			
Yes	109 (65.7)	71 (63.4)	180 (64.7)
No	57 (34.3)	41 (36.6)	98 (35.2)
Circumstances of first sexual intercourse			
Planned	96 (57.8)	67 (59.8)	163 (58.6)
Unplanned but consensual	35 (21.1)	26 (23.2)	61 (21.9)
Forced	28 (16.9)	11 (9.8)	39 (14.0)
No comment	7 (4.2)	8 (7.1)	15 (5.4)
Ever used any type of contraception			
Yes	82 (49.4)	73 (62.2)	155 (55.8)
No	84 (50.6)	39 (34.8)	123 (44.2)
Currently using modern contraceptive method			
Yes	49 (29.5)	55 (49.1)	104 (37.4)
No	117 (70.5)	57 (50.9)	174 (62.6)
Modern methods currently using			
Male condom	19 (38.8)	51 (92.7)	70 (67.3)
Injectable contraceptives	10 (20.4)	1 (1.8)	11 (10.6)
Oral contraceptive pill	12 (24.5)	2 (3.6)	14 (13.5)
Others	8 (16.3)	1 (1.8)	9 (8.6)
Number of pregnancies involved in			
0	70 (42.2)	76 (67.9)	146 (52.5)
1	48 (28.9)	24 (21.4)	72 (25.9)
2	33 (19.9)	9 (8.0)	42 (15.1)
≥3	15 (9.0)	3 (2.7)	18 (6.5)
Ever had a child			
No	102 (61.4)	92 (82.1)	194 (69.8)
Yes	64 (38.6)	20 (17.9)	84 (30.2)
Number of abortions involved in			
0	105 (63.3)	90 (80.4)	195 (70.1)
1	51 (30.7)	18 (16.1)	69 (24.8)
≥2	10 (6.0)	4 (3.6)	14 (5.0)

[a] Values are given as mean ± SD or number (percentage).