

## Assessing the Impact of Parents' Adolescent Reproductive and Sexual Health Knowledge on Sexual Health Education by Parents in the Asutifi (North and South) Districts of Ghana

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### Abstract

Parent's involvement in adolescent sexual health education has been identified as one of the effective ways of reducing sexual risk behaviour among adolescents. However, a number of factors may prevent parents from carrying out adolescent sexual health education. Four hundred and twenty-four (424) parents/guardians, including 180 males and 244 females were randomly selected from the Asutifi north and south districts of the Brong-Ahafo region of Ghana for the cross-sectional study. Self-administered and interviewer-administered questionnaires consisting of demographic characteristics, parent's knowledge on adolescent sexual health, socioeconomic factors, cultural factors and practice of sexual health education were the measures for the study. Literate respondents had self-administered questionnaire while illiterate respondents had interviewer administered questionnaires. Interviewers translated the questionnaire from the English language to the local language (Twi) for illiterate respondents to ensure better understanding of the questions. 86.1% of the surveyed parents practice adolescent sexual health education. Females as well as married parents were found to practice sexual health education (SHE) more than male and unmarried parents respectively. Two variables remained significant after controlling for relevant demographic and other factors. These included parent's knowledges on adolescent sexual health (OR=2.35; 95% CI 1.34-4.09) and parents' level of education (OR= 3.47; 95% CI 1.27-9.45). Government agencies in collaboration with stake holders should develop policies that will ensure that parents are given the necessary training that will boost both their level of education and knowledge on adolescent sexual health.

**Keywords:** Adolescents, Sexual health, Education, Knowledge, Parent.

### Introduction

The HIV/AIDS epidemic and many other sexually transmitted diseases (STDs), teenage pregnancy and crude abortions remain a global problem among adolescents. Statistics from WHO indicate that in Africa sixty percent (60%) of all new HIV infections occur in adolescents who are between fifteen (15) and nineteen (19) years old. About sixteen (16) million girls of the same age group and two million girls under age fifteen (15) give birth every year whilst an estimated three million girls of these adolescents undergo unsafe abortions every year (WHO, 2014).

Parent's reproductive and sexual health knowledge is essential for effective sexual and reproductive health education of adolescents. This is even crucial considering the fact that whatever young people are taught becomes part of them for life. It implies that wrong adolescent and reproductive health information given by parents to young people will be difficult to correct.

It is for this reason that a number of studies across the world recommend that parents themselves need sexuality education in order to address sexual matters more skillfully with their children (Jaruseviciene *et al.*, 2013, Miller *et al.*, 2009, Aspy *et al.*, 2007, Gallegos *et al.*, 2007, Mueller and Powers, 1990).

A randomized trial of parent intervention and knowledge by Stanton *et al.* (2004) found that for the success of any intervention targeted towards building the sexual health knowledge of adolescents it is important to educate, train and involve the parents from the beginning (Stanton *et al.*, 2004 cited in AlQuaiz *et al.*, 2013).

Parents with good sexual and reproductive health knowledge have also been found to have positive attitude towards sexual health education of their adolescents (Phetla *et al* 2008 cited by Bastien *et al.*, 2011). In a cross-sectional study in Harar, Eastern Ethiopia parents with good sexual health and reproductive health knowledge were almost six times higher in discussing sexual and reproductive health issues with their adolescents than parents who did not have good sexual health and reproductive knowledge (Yadeta *et al.*, 2014).

In spite of the positive correlation between good sexual health knowledge and sexual health education by parents or guardians, other researchers have established parents lack of knowledge related to sexual and reproductive health to be a serious barriers for sexual health education of adolescents by parent or guardians (Tesso *et al.*, 2012, Rob *et al.*, 2005). In a matched internal and external control experiment, Mellanby *et al.* (1995) compared control populations which received their own sex education programmes with populations which received a novel sex education intervention that included medical and peer led teaching, and found among other things that, even though parents want to talk to their children about topics related to sexual behaviours, they feel embarrassed, uncomfortable and have neither the skills nor the knowledge to do so. Again a qualitative study in Tanzania found that the sexual and reproductive health information parents do give is often confusing, fear-based, inadequate, and or only focused on daughters (Fehringer *et al.*, 2013)

In a review by Bastien *et al* in Sub-Saharan Africa, lack of parental knowledge was reported as a barrier to sexual health education of adolescents by both parents and young people alike (Bastien *et al.*, 2011). However the review showed that studies on adolescent sexual and reproductive health in Ghana is minimal, few areas such as risks of pregnancy and sexually transmitted by Karim *et al.* (2003), monitoring of unmarried adolescents by parents by Kumi-Kyereme *et al.* (2007), the influence of three dimensions of parenting-material support (co-residence), monitoring and communication on adolescent sexual behavior by Biddlecom, Awusabo-Asare and Bankole (2009), the relationship between family communication about HIV/ AIDS, sexual activity and condom use among secondary school students by Adu-Mireku (2003) were found (Bastien *et al.*, 2011). No study on parent's knowledge on adolescent sexual and reproductive health have been conducted. This study will add to existing knowledge on parents knowledge on adolescent sexual and reproductive health in the Asutifi district and Ghana as a whole.

The importance of parent's knowledge on adolescent sexual and reproductive health for sexual health education of adolescents cannot be overemphasized. This is because if the parent's lack the requisite knowledge for sexual health education, they will definitely lack the needed confidence and zeal to educate their adolescents on sexual and reproductive health.

### **Statement of the Problem**

In the past the rites of puberty had been the period for sexual health education of the adolescent by grandparents and aunts in Ghana and most African traditional societies. In recent times, overwhelming number of researchers supports the belief that parents have the ability to influence their children's decisions regarding sexual behaviour, to the extent that when parents talk to their adolescents about sexuality, they are more likely to delay intercourse and if they have intercourse, they use contraception and have fewer partners (Davis *et al.*, 2010, Diclement *et al.*, 2001). Nevertheless, it is observed that most parents do not feel comfortable talking about sexual health issues with their adolescents or they do not even recognize the need for it. It is against this background that the researcher wants to determine parents/guardians level of adolescent sexual health knowledge.

### **Conceptual Frame Work**

The study hypothesizes adolescent sexual health education among parents is affected by parents' knowledge on adolescent sexual health. It is believed that one cannot give what he/she does not have. Parents cannot educate their adolescent on sexual health if they do not know what adolescent sexual health is all about. For instance, if a parent does not know how menstruation occurs and the fact that adolescents who menstruate at age ten can become pregnant if she has sex, such parent will not be able educate their adolescents. Not knowing what to say about such issues may create barrier for sexual health education among parents.

### **The Purpose of the Study**

This study is designed to determine the level of knowledge that parents have in adolescent reproductive and sexual health.

## Research Question

The following research question was addressed in this study;

What level of knowledge do parents have in adolescent reproductive and sexual health.

## Methodology

The research designed used was cross-sectional community survey. This study was conducted in the Asutifi North and South Districts of the Brong Ahafo Region of Ghana. The twin district is located approximately 30 km south of Sunyani, the regional capital of the Brong Ahafo Region. It is estimated that the District's population in 2004 was 89,000. With a population growth rate of 2.8 percent per annum. Fifty-one percent of the population is female; 50 percent is of working age (18 to 64) and forty-nine percent male; 48 percent is of working age (18-64); with just two urban settlements (Kenyase 2, and Hwidem), the districts are largely rural. (GDHS, 2008)

Epi-info version 7.1.4 software was used to calculate the minimum sample size required with level of significance set at 5% and 95% confidence interval. Considering the sensitive nature of the topic (the fact that some parents or /guardians might not respond to the entire questionnaire) and the sample size required for effective analysis (385), the calculated sample size was extrapolated to four hundred and twenty-four (424) by a ten percent (10%) non-response rate. The sample was made up of 180 male and 244 female parents or guardians who had adolescent children aged 10–14 years. Participants were recruited into the study from six commercial towns which inhabits a cross-section of the major ethnic groups of the Asutifi north and south districts: 16% of the parents were selected from Acherensua, 22% from Hwidiem, 16% from Kenyase 1, 23% from Kenyase 2, 18% from Nkaseim and 5% from Ntotroso. The selection was done proportionate to the population size of the towns.

Table 1 shows the outline of the dependent and independent variables for the study and their corresponding scales of measure and instruments used for measurement

**Table 1: variables table**

Variable	Operational definitions of study variables	Scale of measurement	Instrument
<b>Dependent variable</b>			
Practice of adolescent sexual health education	parents –adolescent communication on sexual health issues or not	Nominal	Questionnaire
<b>Independent Variables</b>			
Parents' Level of education	The highest level of education the respondent has attained at the time of the study	Nominal	Questionnaire
Parity	Number of children of respondent	Numeric	Questionnaire
Age	The age of the respondent at the time of the study	Numeric	Questionnaire
Puberty rites	Any form of initiation done to mark the onset of puberty.	Nominal	Questionnaire
Knowledge of adolescent sexual health	Ability to identify: the female and male physiological signs at puberty, STIs, condom as a method of contraception etc.	Ordinal	Questionnaire
Gender	The respondent being male or female.	Nominal	Questionnaire
Concern that adolescents will practice sex	Parents reasoning that their adolescents will engage in sexual activity if they teach them sexual health education,	Nominal	Questionnaire
Marital status	Being married or not married	Ordinal	Questionnaire

Twenty parents of adolescents from one of the towns in the district were purposefully selected for pre-testing of the questionnaire before using it for the main study. Options obtained for the questionnaires were used to re-structure unclear and ambiguous items in the questionnaire and to prompt respondents during the main stream study. The pretesting also enabled trained interviewers to practice what they have been taught and for the necessary adjustments for the main study.

Structured interview questionnaire was used to collect the data. The participants completed a 10 items questionnaire on demographic characteristics and level of adolescent sexual health knowledge. The questionnaire consisted of two sections. The first section collected data on parent's demographics. The second contained questions measuring their knowledge in sexual health education of their adolescents. Questions related to demographic characteristics included age, gender, and current marital status, parity, level of education and number of adolescents in the care of a parent/guardian. Five items to measure the parents' sexual health knowledge included adolescent period, common signs of puberty in adolescents, menstruation, contraception and STIs. The field data collection procedure was closely supervised by three trained supervisors and the principal investigator to ensure the interviewers did the right things in order to reduce data collection errors as much as possible.

### Data Analysis

The analysis focuses on the determination of the level of knowledge parents/guardians have in adolescence reproductive and sexual health. The data for the analysis was obtained from a cross-sectional community survey. The data was entered into Microsoft excel 2013 (Version 15.0.4551.1011) and then transferred into Stata (Version 12) computer statistical Software package for analysis. Chi square ( $\chi^2$ ) analyses were performed to determine the association between dependent and independent variables under the study. Logistic regression was used to determine the simple relationship between the outcome variable and each of independent variable. The strengths of the associations were determined with multiple logistic regression. Socio demographic characteristics were included into regression model to control confounding. Inferences were made with 95% confidence interval with 5% error margin and p value <0.05. The results were presented in frequency, cross tabulation tables and bar charts.

### Ethical clearance

Ethical clearance for the study was obtained from the Committee on Human Research, Publication and Ethics (CHRPE) of the Kwame Nkrumah University of Science and Technology/ Komfo Anokye Teaching Hospital. Written consent was obtained from respondents to ensure their willingness to participate in the study.

### Results/Discussion

#### Demography

**Table 4.1 Distribution of respondents by demographic characteristics and parent's adolescent sexual health knowledge**

Variable	N= 424	%
<b>Age</b>		
27-39	79	18.6
40-59	219	51.7
≥ 60	126	29.7
<b>Gender</b>		
female	244	57.5
Male	180	42.5

<b>Marital status</b>		
<i>Not married</i>	160	37.7
<i>Married</i>	264	62.3
<b>Parity</b>		
<i>&lt; 5 children</i>	266	62.7
<i>≥ 5 children</i>	158	37.3
<b>Level of education</b>		
<i>No formal education</i>	79	18.6
<i>Basic education</i>	190	44.8
<i>Secondary education</i>	63	14.9
<i>Tertiary education</i>	92	21.7
<b>Sexual health knowledge</b>		
<i>Inadequate</i>	58	13.7
<i>Moderate</i>	120	28.3
<i>Adequate</i>	246	58
<b>Practice SHE</b>	365	86.1

Older parents/guardians were found to practice SHE compared to younger parents (Adj. OR, 2.06 CI 0.78-5.45) while female parents practice SHE a little more than male parents (57.5%: 42.5%).

The available data from respondents also revealed that married parents had higher frequency for SHE than unmarried parents and parents with lower family size practiced SHE than those with larger family size (Table 4.1). Association between some demographic characteristics and practice of adolescent SHE among parents/guardians such as gender, age, family size were consistent with other findings (Biddlecom *et al.*, 2009, cited in Bastien *et al.*, 2011, Wamoyi *et al.*, 2010, Musa *et al.*, 2008 Amoran *et al.*, 2005). These findings are to be expected in the sense that, older age groups of parent may have acquired more life experiences to share with their adolescents than younger age groups thus, the difference in SHE practice. Also, mothers for instance are closer to their children from infancy in many cases than their fathers due to the biological and social roles mothers play. Two-parent family may have more time for SHE than single parents who may be burdened with their work in order to support their children single handedly. However, further, statistical analysis did not show any association between two parent family and single parents and SHE. Some researchers have concluded that there are inconsistencies across studies as far as association between socio-demographic characteristics and SHE in Sub-Saharan Africa is concerned (Bastien *et al.*, 2011; Gallegos *et al.*, 2007).

**Research Question:** What level of knowledge do parents have in adolescent reproductive and sexual health?

**Table 2.2 Effects of parents' level of education and knowledge on SHE**

Variables	Practice SHE		Unadjusted		Adjusted			P=value <sup>1</sup>
	No	Yes	OR	95% CI	P=value	OR	95% CI	
	N	N						
<b>Level of education</b>								0.010
<i>No formal education</i>	18	61	1.00			1.00		
<i>Basic education</i>	20	170	2.51	1.24-5.05	0.01	3.22	1.43-7.25	
<i>Secondary education</i>	12	51	1.25	0.55-2.85	0.59	1.3	0.51-3.31	
<i>Tertiary</i>	10	82	2.41	1.04-5.61	0.04	3.47	1.27-9.45	
<b>Sexual health knowledge</b>								0.002
<i>Inadequate</i>	9	49	1.00			1.00		
<i>Moderate</i>	27	93	0.63	0.28-1.45	0.28	0.75	0.31-1.82	
<i>Adequate</i>	24	222	1.7	0.74-3.88	0.21	2.34	1.34-4.09	

From the results in table 2, more than half (58.0%) of the parents/guardians had adequate adolescent sexual health knowledge. Parents who have adequate adolescent sexual health knowledge are more likely to practice SHE. (Adj. OR 2.34, CI 1.34-4.09).

The criteria for assessing parents level of sexual health knowledge was based on the percentage of correctly marked items of all the questions under the section(Including: adolescent period, Physiological changes in both boys and girls, contraception , STIs and reproduction). Parents who marked correctly 70% or more of the composite questions were considered as having adequate adolescent sexual health knowledge; those with 50% to 69% had moderate knowledge and below 50% were considered as having poor sexual health knowledge. Similar criteria were used by Alquiz *et al.* (2013) to measure sexual health knowledge. However, their study focused only on physiological changes occurring during puberty separately in boys and girls and sexually transmitted infections.

According to the available data, parents' level of knowledge was related to practice of adolescent SHE. After controlling for demographic and other characteristics, parent's knowledge on adolescent sexual health was still highly significant. Several other studies support this finding (Bastien *et al.*, 2011, Walker, 2011, Bearinger *et al.*, 2007, Mathew *et al.*, 2006).

Specifically, parents with adequate adolescent sexual health knowledge may practice sexual health education than those with inadequate knowledge. In effect parents cannot give to their adolescents, what they do not have. For instance, if a parent does not know the signs of adolescence, it will very difficult for such a parent to appreciate the physiological changes that occur during adolescence in order to offer the necessary education.

### Conclusions

Findings from this study indicate the parent's sexual health knowledge in adolescence reproductive and sexual health. Parents' with adequate adolescent sexual health knowledge are likely to practice SHE than those with inadequate adolescent sexual health knowledge. The adolescents of such parents may be protected from the dangers associated with early sexual debut. It is imperative that parents improve upon their adolescent sexual health knowledge from time to time. The educational level of parents is significantly associated with their practice of adolescent sexual health education. Formal education empowers

<sup>1</sup> Results from likelihood test

parents/guardians to read and use different sources of information which may facilitate SHE. Formal education for parents/guardian is essential to guarantee SHE among parents/guardians.

## References

- [1.] Ali Mehryar Karim, Robert J. Magnani, Gwendolyn T. Morgan and Katherine C. Bond (2003): Reproductive Health Risk and Protective Factors among Unmarried Youth in Ghana. *International Family Planning Perspectives*:Vol. 29, No. 1, pp. 14-20. DOI: 10.2307/3180997
- [2.] AlQuaiz, A.M., Kazi, A., Muneef, M.A.(2013). Determinants of sexual health knowledge in adolescent girls in schools of Riyadh-Saudi Arabia: a cross sectional study. *BMC Womens Health* 13, 19. doi:10.1186/1472-6874-13-19
- [3.] Amoran OE, Onadeko MO, Adeniyi JD (2005):Parental influence on adolescent sexual initiation practices in Ibadan, Nigeria.*Int Q Community Health Educ*, 23(1):73-81
- [4.] Aspy, C.B., Vesely, S.K., Oman, R.F., Rodine, S., Marshall, L., McLeroy, K. (2007). Parental communication and youth sexual behaviour. *J. Adolesc.* 30, 449–466. doi:10.1016/j.adolescence.2006.04.007.
- [5.] Bastien, S., Kajula, L.J., Muhwezi, W.W. (2011). A review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. *Reprod. Health* 8, 25. Doi: 10.1186/1742-4755-8-25
- [6.] Bearinger, L.H., Sieving, R.E., Ferguson, J., Sharma, V., 2007. Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *The Lancet* 369, 1220–1231. Doi: 10.1016/S0140-6736(07)60367-5
- [7.] Biddlecom A, Awusabo-Asare K, Akinrinola B(2009): Role of Parents in Adolescent Sexual Activity and Contraceptive Use in Four African Countries. *International Perspectives on Sexual and Reproductive Health*:Vol. 35, No. 2 , pp. 72-81. 10.1363/3507209.
- [8.] Davis, K.C., Blitstein, J.L., Evans, W.D., Kamyab, K., (2010). Impact of a parent-child sexual communication campaign: results from a controlled efficacy trial of parents. *Reprod. Health* 7, 17. Doi: 10.1186/1742-4755-7-17
- [9.] DiClemente, R.J., Wingood, G.M., Crosby, R., Cobb, B.K., Harrington, K., Davies, S.L. (2001). Parent-adolescent communication and sexual risk behaviors among African American adolescent females. *J. Pediatr.* 139, 407–412. doi:10.1067/mpd.2001.117075
- [10.] Fehringer, J.A., Babalola, S., Kennedy, C.E., Kajula, L.J., Mbwambo, J.K., Kerrigan, D. (2013). Community perspectives on parental influence on engagement in multiple concurrent sexual partnerships among youth in Tanzania: implications for HIV prevention programming. *AIDS Care* 25, 207–214. doi:10.1080/09540121.2012.699666
- [11.] Gallegos, E.C., Villarruel, A.M., Gómez, M.V., Onofre, D.J., Zhou, Y. (2007). Research Brief: Sexual Communication and Knowledge Among Mexican Parents and Their Adolescent Children. *J. Assoc. Nurses AIDS Care, Special Issue: Cultural Dynamics in HIV Prevention among Young People* 18, 28–34. doi:10.1016/j.jana.2007.01.007
- [12.] Godfrey Phetla, Joanna Busza, James R. Hargreaves, Paul M. Pronyk, Julia C. Kim, Linda A. Morison, Charlotte Watts, and John D.H. Porter (2008). “They Have Opened Our Mouths”: Increasing Women's Skills and Motivation for Sexual Communication With Young People in Rural South Africa. *AIDS Education and Prevention*: Vol. 20, No. 6, pp. 504-518.
- [13.] Jaruseviciene, L., Orozco, M., Ibarra, M., Cordova Ossio, F., Vega, B., Auquilla, N., Medina, J., Gorter, A.C., Decat, P., De Meyer, S., Temmerman, M., Edmonds, A.B., Valius, L., Lazarus, J.V. (2013). Primary healthcare providers’ views on improving sexual and reproductive healthcare for adolescents in Bolivia, Ecuador, and Nicaragua. *Glob. Health Action* 6. doi:10.3402/gha.v6i0.20444
- [14.] Kumi-Kyereme A, Awusabo-Asare K, Biddlecom A, Tanle A (2007): Influence of social connectedness, communication and monitoring on adolescent sexual activity in Ghana. *J. Reprod Health*, 11(3):133-49.
- [15.] Mathew RM, Shugaba AI, Ogala WN: Parents-adolescents Communication and HIV/AIDS in Jos North Local Government Area, Plateau State, Nigeria. *Journal of Medical Sciences* 2006, 6:537-45
- [16.] Mellanby R.A, Phelps F. A, Crichton N. J., Tripp H. J (1995). School sex education: an experimental programme with educational and medical benefit: *British Medical Journal* , vol. 311,

no. 7002, pp. 414-417, 1995. Available from  
<<http://academic.research.microsoft.com/Publication/59340528/> Accessed on 1/1/14.

- [17.] Mueller, K.E. and Powers, W.G. (1990). Parent-child sexual discussion: perceived communicator style and subsequent behavior. *Adolescence*.
- [18.] Musa OI, Akande TM, Salaudeen AG, Soladoye OM (2008): Family communication on HIV/AIDS among secondary school students in a northern state of Nigeria. *African Journal of Infectious Diseases*, 2(1):1-5.
- [19.] Rob, U., Ghafur, T., Bhuiya, I., Talukder, N. (2005). Reproductive and sexual health education for adolescents in Bangladesh: parents' view and opinion. *Int. Q. Community Health. Educ.* 25, 351–365. Doi: 10.2190/G52U-1301-2444-0138 Stanton B, Cole M, Galbraith J, Li X, Pendleton S, Cottrel L, Marshall S, Wu Y, Kaljee L (2004): Randomized trial of a parent intervention: parents can make a difference in long-term adolescent risk behaviors, perceptions, and knowledge. 158(10):947-55.
- [20.] Tesso, D.W., Fantahun, M.A., Enquselassie, F. (2012). Parent-young people communication about sexual and reproductive health in E/Wollega zone, West Ethiopia: Implications for interventions. *Reprod. Health* 9, 13. Doi: 10.1186/1742-4755-9-13
- [21.] Walker, J. (2004). Parents and sex education - looking beyond 'the birds and the bees'. *Sex Education*, 4, 239-254. doi: 10.1080/1468181042000243330.
- [22.] Wamoyi, J., Fenwick, A., Urassa, M., Zaba, B., Stones, W. (2010). Parent-child communication about sexual and reproductive health in rural Tanzania: Implications for young people's sexual health interventions. *Reprod. Health* 7, 6. Doi: 10.1186/1742-4755-7-6
- [23.] WHO (2014). Reproductive health. WHO. URL. [Internet] available from <[http://www.who.int/topics/reproductive\\_health/en/](http://www.who.int/topics/reproductive_health/en/)> (accessed 4.1.14).
- [24.] Yadeta, T.A., Bedane, H.K., Tura, (A.K., 2014). Factors Affecting Parent-Adolescent Discussion on Reproductive Health Issues in Harar, Eastern Ethiopia: A Cross-Sectional Study. *J. Environ. Public Health* 2014, e102579. doi:10.1155/2014/102579.