Primary Health Care: Open Access

Research Article

Individual Risk Factors Contributing to the Prevalence of Teenage Pregnancy among Teenagers at Naguru Teenage Centre Kampala, Uganda

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Abstract

Introduction: Teenage pregnancy and its effects on teen motherhood are among the major societal challenges of the teenagers in the contemporary global community. In a 30 million population 25 percent pregnancy rate among adolescents is an issue of great concern to the government and the whole of Uganda.

Objective: This study identifies and analyses the individual factors contributing to the prevalence of teenage pregnancy among teenagers assessing Naguru teenage centre.

Methodology: A cross sectional study design was used employing both quantitative and qualitative approaches using 384 population sample size among teenagers assessing Naguru teenage centre. A consecutive sampling technique with structured questionnaire was used to identify the individual factors contributing to teenage pregnancy. Data were statistically analysed using SPSS for the relationship between the variables.

Results: The result shows that 4 in every 10 teenagers accessing Naguru teenage centre were pregnant. Individual risk factors found to be associated with teenage pregnancy were educational level (P=0.024, X^2=7.452), age at the start of contraceptives (P=0.049, X^2=7.852), siblings are sexually active (X^2=12.727, P=0.005) and siblings ever got pregnant (X^2=15.214, P<0.001). Teenagers that were not educated (OR=3.437, CI=6.906-1.711) were more likely to be pregnant. Teenagers who start the use of contraceptives at the age of 13years and above were more likely to get pregnant (OR=2.484, CI=4.938-1.25). Teenagers whose siblings were sexually active (OR=5.308, CI=11.295-2.494) were more likely to get pregnant. Teenagers whose siblings ever got pregnant were more likely to get pregnant (OR=2.575, CI=4.642-1.428).

Conclusion: The study concluded that the prevalence of teenage pregnancy among teenager accessing Naguru teenage centre is moderately high. Risk factors for teenage pregnancy were educational level, age at the start of contraceptives, sibling sexually active and siblings ever got pregnant.

Recommendation: Government, Stakeholders, community leaders, teachers and parents have more efforts such as sensitization, monitoring, counseling, etc to intensify on various means of reducing teenager's pregnancy.

Keywords: Teenage pregnancy; Contraceptives; Risk factors

Introduction

Teenage pregnancy remains a perturbing issue which requires urgent intervention worldwide [1]. Globally, the prevalence of teenage pregnancy was reported to be about 16 million girls aged 15 to 19 year and mostly one million girls fewer than 15 years yearly in low- and middle-income countries [2]. Also, childbirth complications during pregnancy are the second cause of death for 15-19 year old girls [2]. An approximate of 95% of teenage pregnancies occurs in developing countries with 36.4 million female becoming mothers before the age of 18years [1].

Sub-Saharan Africa recorded the highest prevalence of teenage pregnancy in the world in 2013 [1]. Teenage births accounted for more than half of all the births in this region: an estimated 101 births per 1000 women aged 15 to 19 (ibid). Sub-Saharan Africa consists of countries with prevalence of teenage pregnancy above 30% [3]. Government and non-governmental organizations (NGOs) have decided to address this issue through policies and other initiatives. In spite of the huge investments and modification of concerned policies and interventions, teenage pregnancy still persists to the extent of reaching crisis proportions in most African countries [4]. In a study conducted in Soweto South Africa, it was found that 23% of pregnancies were carried by 13—16 year old young women and 49% of which falls between 17-19 year ages ended in abortion [5].

In Uganda evidence suggests that the proportion of teenagers who have started childbearing has declined over time, from 43 per cent in the 1995 UDHS, to 31 per cent in the UDHS 2006 and finally, to 24 percent in 2011 [6]. The factors associated with childbearing in Uganda are intriguing and important for both health, economic and social concerns; Maternity registry statistics specifically reveal significantly high numbers of teenagers passing through Naguru Teenage Centre in Kampala. In a study by Matteo et al., Physicians, care managers, and patients displayed general agreement concerning the positive impacts on patient health and self-management, and attributed the outcomes to the strong "partnership" between the care manager and the patient [7]. This was a major thrust of this study which prompts the study to explore individual factors contributing to teenage pregnancy among teenagers assessing Naguru teenage centre in Kampala.

Methods and Materials

Study area

This study was carried out at Naguru teenage and information

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health centre. Naguru teenage information and health centre is a pioneer program which provides friendly Adolescent sexual reproductive health services.

Sample size and population

This study targeted teenagers in Kampala which was accessed at Naguru teenage centre only. The sample size used was 384, which was determined using Kishi and Leslie formula.

Sampling procedure

A consecutive sampling method was adopted. Teenagers were enrolled consecutively into this study at Naguru teenage centre until the desired sample size was achieved

Procedure for data collection

Questionnaire: Data were collected using structured questionnaire which was administered to the respondents. The questionnaires contain questions to determine individual risk factors and prevalence of teenage pregnancy.

Pre testing: Pre-testing was done using 10 respondents at Kisugu health centre in Namuwongo Kampala district. This was done to ensure clarity and to make necessary adjustment based on the outcome of the results.

Research assistant: Research assistants were trained on the objectives of the study and the research assistants selected were nurses working at Naguru health centers.

Data analysis

The coded data were double entered in Statistical Package for Social Sciences (SPSS). The same Statistical Package for Social Sciences (SPSS) was used for data processing, analysis and manipulation. Descriptive analysis of background variables was used to analyse the proportion of exposed and unexposed teenagers. The teenage pregnancy risk associated with the exposure was estimated using the chi-square method, i.e., checking the strength of association between suspected predisposing factor to sex (exposure) and pregnancy with the p value as the guide. Multivariate regression analysis was done to determine the role of confounding factors on final results.

Ethical considerations

Permission was obtained from the director of Medical Services (DMS) in Naguru Health canters to carry out this study. The purpose of the study was explained to participants by means of information sheet. The participants were assured of strict confidentiality of any information they will provide. Each participant was required to fill an informed written consent letter. The entire participants were treated with dignity and respect. Anonymity was assured to the participant by using codes for identification instead of their names. The participants were informed that taking part in this study is completely of your own choice; any attempts to opt out of this exercise will not stop you from receiving all services that you normally get from this canter.

Study limitations

The study design cannot be used to analyse behaviour over a period to time. The data were collected at once; we are unable to study the respondent for a long period of time which may limit the information extracted.

The use of questionnaire only as the tool for data collection limit

the exploration in this study, as qualitative data were not captured to validate the quantitative data collected.

Considering the sampling techniques used (convenience sampling) which is the best means that can be used to get the data from the centre because the teenagers were only visiting the hospital not hospitalized, the degree of generalizability is questionable. Respondents were interviewed based on the availability not randomized.

Results

Socio-demographic characteristics

The study captured the demographic characteristics of the teenagers attending Naguru teenage centre. The key background characteristics here explained in the Table 1 below;

From the table above, the study found the majority of the respondents to be within the age range of 17-18 years with total number 132 (42%) out of 315 respondent. The least age range of the respondent were those that falls between 13-14 years with 31 (9.9%) out of 315 respondents. The majority of the respondents practiced catholic religion with a total number of 119 (37.8%) respondents while the least religion group that responded falls under other religion such as Seventh day, born-again and so on with 32 (10.2%) respondents out of 315 respondents.

The respondents with no formal education are 25 in number accounting for 8% of the respondent with the least number of respondents, primary education have 93 respondents (29.6%) and secondary education have the highest number of the respondents with 196 (62.4%) out of 315 respondents.

Prevalence of teenage pregnancy

The chart below shows the prevalence of teenage pregnancy among teenagers attending Naguru teenage centre with almost 39.7% of the respondents were pregnant before and the remaining 60.30% of the respondents were not pregnant.

Individual factors influencing the prevalence of teenage pregnancy

The individual factors found to be associated with teenage pregnancy among teenagers attending Naguru teenage centre were educational level (P=0.024, X^2=7.452), age at the start of contraceptives (P=0.049, X^2=7.852), sibling who are sexually active (X^2=12.727, P=0.005) and siblings ever got pregnant (X^2=15.214, P<0.001) as indicated in Table 2 below.

Teenagers that were not educated (OR=3.437, CI=6.906-1.711)

Variable	Category	N	Percent
Age	13-14	31	9.9
	15-16	91	29.1
	17-18	132	42.2
	19-20	59	18.8
Religion	Moslem	88	27.9
	Protestant	76	24.1
	Catholic	119	37.8
	Others	32	10.2
Education level	None	25	8
	Primary	93	29.6
	Secondary	196	62.4

Table 1: Socio-demographic characteristics of Adolescents in Naguru Teenager centre.

Prevalence of pregnancy					
Variable	Yes (%)	No (%)	χ^2	p-value	Odd ratio
Age					
13-14	8 (6.5)	23 (12.1)	4.221	0.239	
15-16	34 (27.6)	57 (30.0)			
17-18	59 (48.0)	73 (38.4)			
19-20	22 (17.9)	37 (19.5)			
Religion					
Moslem	37 (29.6)	51 (26.8)	0.949	0.814	
Protestant	28 (22.4)	48 (25.3)			
Catholic	49 (39.2)	70 (36.8)			
Others	11 (8.8)	21 (11.1)			
Education level					
None	4 (3.2)	21 (11.1)	7.452	**0.024**	3.437 (6.906-0.711)
Primary	35 (28.0)	58 (30.7)			2.468 (5.180-1.176)
Secondary	86 (68.8)	110 (58.2)			1
Age of menarche					
≤ 9 years	1 (0.8)	2 (1.1)	0.051	0.975	
10-13 years	45 (36.0)	68 (35.8)			
>13 years	79 (63.2)	120 (63.2)			
Age at 1st sexual intercourse					
≤ 9 years	2 (1.7)	11 (6.2)	3.871	0.144	
10-13 years	32 (26.4)	40 (22.5)			
>13 years	87 (71.9)	127 (71.3)			
Ever used contraceptives					
Yes	62 (49.6)	100 (53.8)	3.115	0.211	
No	58 (46.4)	84 (45.2)			
Aware of safe sex					
Yes	98 (87.5)	150 (79.4)	5.413	0.067	
No	12 (10.7)	38 (20.1)			
Age at start of contraceptives					
≤ 9 years	7 (8.0)	6 (4.7)	7.852	**0.049**	0.738 (1.717-0.317)
10-13 years	17 (19.3)	45 (34.9)			1
>13 years	63 (71.6)	78 (60.5)			2.484 (4.938-1.250)
Sibling sexually active					
Yes	69 (56.1)	65 (35.7)			5.308 (11.295-2.494)
No	13 (10.6)	25 (13.7)			1
I don't know/NA	41 (33.3)	92 (50.5)			1.210 (2.299-0.637)
Receive sexual education					
Yes	87 (69.6)	126 (68.1)	1.751	0.417	
No	37 (29.6)	57 (30.8)			
Drink alcohol					
Yes	54 (43.9)	75 (39.7)	15.214	**<0.001**	
No	69 (56.1)	112 (59.3)			
Sibling ever pregnant					
Yes	91 (75.2)	97 (53.0)			2.575 (4.642-1.428)
No	30 (24.8)	86 (47.0)			1

Table 2: Individual factors associated with teenage pregnancy among teenagers in Naguru centre.

were more likely to be pregnant followed by those with primary school education level (OR=2.468, CI=5.180-1.178). Teenagers who started the use of contraceptives at the age of 13 years and above were more likely to get pregnant (OR=2.484, CI=4.938-1.25). Teenagers whose siblings were sexually active (OR=5.308, CI=11.295-2.494) were more likely to get pregnant followed by teenagers who didn't know maybe their siblings were sexually active (OR=1.210, CI=2.299-0.637). Teenagers whose siblings ever got pregnant were more likely to get pregnant (OR=2.575, CI=4.642-1.428).

Discussion

Prevalence of pregnancy

The prevalence of teenage pregnancy at Naguru teenage centre shows that four in every ten teenagers attending Naguru teenage center were pregnant. The prevalence is moderately high; this may be due to early sexual exposure, poverty, family background, traditional and cultural norms etc. Considering the socio-economic situation of Uganda, it is obvious that the poverty rate is high which has been a long time predictor of teenage pregnancy; so also several studies have discovered the impact of early exposure to sex, family influences and cultural norms as contributing factors to the high prevalence of teenage pregnancy. This result is in close conformity with a study that found eight in every ten pregnant women attending antenatal care in Butaleja district were teenagers [8]. This observation peculiarly exposed the high prevalence of teenage pregnancy, for the population of pregnant teenagers to outweigh the population of the pregnant adults at the antenatal care. According to the figures from Uganda demographic health survey 2011, 24% of all female teenagers are either pregnant or have given birth already [9,10]. More so, a close proximity in the results obtained was observed with the regional demographic and health survey that shows that in central Uganda, 3 out of every 10 teenagers are pregnant [11]. This confirmed and validates the study because Naguru teenage centre is located at the central Uganda. The implications of high prevalence of teenage pregnancy are overpopulation, economic burden, increase in poverty rate, increase in maternal and child health challenges etc. If teenage pregnancy persists the population will grow in multitudes till it get beyond the normal growth rate which will posed a great burden to the economic development of the country resulting into high crime rate, ecology imbalance, severity of health challenges etc. High poverty rate which has been a revolving predictor for teenage pregnancy will continue to increase as the population grows, increase in population and high poverty rate are two factors that accompany each other all around. So also, the psychosocial trauma teenagers go through after pregnancy is indescribable, teenagers who got pregnant by accident or unwanted pregnancy in most cases have the probability

Figure 1: Distribution of adolescents according to history of pregnancy in Naguru Teenager centre.

of marriage instability. Clinically, high prevalence of teenage pregnancy may result into various cases of birth complications such as still birth, miscarriage, cervical cancer etc. All these complications have a great burden on the economical situation of the country as high financial expenditure is required to overcome them.

Individual factors influencing the prevalence of teenage pregnancy

The individual factors associated with teenage pregnancy among teenagers attending Naguru teenage centre shows educational level to be significantly associated with the prevalence of teenage pregnancy. Teenagers that were not educated and those with primary school education were more likely to be pregnant. The result from this study is in line with the findings of Uganda bureau of statistics which said 2 out of every 10 adolescents who are able to complete secondary school were pregnant, this tend to reflect low pregnancy rates among secondary school students compared to the proportion among adolescents who dropped out or have no secondary education which is 5 out of every 10 adolescence [12]. The findings maybe as a result of exposure and peer influences, because at secondary school level most females have their prime exposure to sex and several factors will be attracting them to it such as poverty, hormonal development, peer group influences etc. So also, teenagers who dropped out or have no secondary education are susceptible to teenage pregnancy too due to poverty level, idleness, social strives etc. High school dropout rate may be the resulting effects of teenage pregnancy which will increase poverty, truancy, reduced productivity of the community and country etc. Several births complications will be recorded as well.

Age at the start of contraceptives use have a meaningful relationship with teenage pregnancy. Teenagers who started the use of contraceptives at the age of 13years and above were more likely to get pregnant. This study indicated that the use of contraceptives is high but still yet teenage pregnancy is high, this shows that teenagers may sometimes be feed up of using the common contraceptives such as condom and tends to explore sexual activities more which placed them at higher risk of pregnancy. This is in line with a study which stated that conscious use of contraceptives appeared to be the main difference between pregnant and never pregnant among teenagers in Uganda; however there was a lack of knowledge and/or misconception about family planning methods other than condoms in Uganda [13]. Obviously, this will place the community at risk of overpopulation and associated effects. Several cases of births complications will be recorded as well.

Siblings are sexually active has a strong relationship with prevalence of teenage pregnancy. Teenagers whose siblings were sexually active and teenagers who didn't know maybe their siblings were sexually active were more likely to get pregnant. Sexual activities of siblings will surely influence each other, as most siblings see their elderly ones as role model and follow their steps always. This is in line with a study that said sexual behavior of younger siblings is affected by exposure to a sibling teen pregnancy [14]. This will leads to a recurrent of teenage pregnancy within the same households which can lead to overpopulation couple with poverty. Several cases of births complications can be recorded as well.

Siblings ever got pregnant have significant relationship with prevalence of teenage pregnancy. Teenagers whose siblings ever got pregnant were more likely to get pregnant. The pregnancy of a siblings will definitely influences others because the entire family may see as a norms and careless about the implication, which will be reoccurring within the household. Which is in line with a study which stated
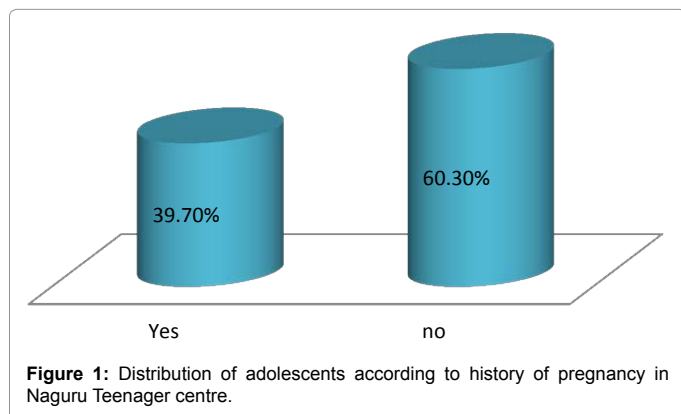
that after an older siblings teen pregnancy, younger siblings are more sexually active, have more sexual partners and are more likely to have a teen pregnancy themselves [14,15]. Increases in poverty rate, school dropout, frustrations are the likely implication of consistence teenage pregnancy in the community and entire country.

Conclusion

The prevalence of teenage pregnancy was found to be moderately high accounting for four in every ten teenagers attending Naguru teenage center. Educational level, age at the start of contraceptives, siblings sexually active and siblings ever got pregnant were Individual factors found to have influence on prevalence of teenage pregnancy.

Recommendation

Government should channel an effective law enforcing agent to properly cater for teenage pregnancy, because it is a criminal offence to impregnate a girl under the age of 18 but the major shortcomings of Uganda's health policies is the lack of full and proper implementation of the laws.

Much effort should be intensified on sex education in various institute of learning, sex education should be regarded as a core course to learn, so as to make sex education easy for teenagers to acquire.

Teenager's empowerment model or framework should be designed which will considers the teenager as one of the most important member of the community. The model should give teenagers the power as a major not minor, in order for them to see the need for personal protection, advancement and advocacy. This will enhance and support services to the teenagers provided by primary health care system.

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