

High prevalence of intimate partner violence among pregnant teenagers in Lira district, northern Uganda: a cross sectional study.

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Abstract

Background: Intimate partner violence (IPV) during pregnancy is associated with adverse health outcomes for the mother and her unborn baby. Whereas the literature on IPV in the general population is extensive, little is known about IPV among pregnant teenagers especially in resource limited settings. This study determined the prevalence and factors associated with IPV among pregnant teenagers attending antenatal care clinics (ANC) in Lira District, Northern Uganda.

Methods: This was a cross-sectional study of 310 pregnant teenagers attending ANC at Lira regional referral hospital and Ogur health center IV. Eligible teenagers were recruited consecutively until the required sample size was accrued. Data was collected using a structured questionnaire. IPV was determined using the Revised Conflict Tactile Scale (CTS2) screening tool. Logistic regression analysis was performed to identify factors associated with IPV during pregnancy while considering potential confounding factors.

Results: The overall prevalence of IPV among pregnant teenagers was 40.6% [95% CI: 35.13-46.34]. The prevalence of psychological violence was 37.1%, [95% CI: 31.70-42.74]; sexual assault 29%, [95% CI: 24.04-34.43] and physical violence was 24.8%, [95% CI: 20.13-30.04]. Partner alcohol intake (OR=5.00, 95%CI: 2.87-8.71, P=0.000); polygamy (OR=2.80, 95%CI: 1.49-5.23, p=0.001); and inability to make major decision in the home by the teenage mother (OR=2.42, 95%CI: 1.29-4.54; P=0.006); were independently associated with IPV during pregnancy.

Conclusion: About 4 in 10 of pregnant teenagers in Lira district, Northern Uganda experience IPV. This is higher than what has been reported in the general population of pregnant women in Uganda. Teenagers were more likely to experience IPV if they were in a polygamous relationship, were unable to make major decisions in the home and had an alcoholic partner. IPV screening and counselling should be part of the routine antenatal care package. **Key words;** Intimate partner violence, teenage pregnancy, factors associated.

Background

Intimate partner violence (IPV) is a pattern of behavior which involves **violence** or **abuse** by a person in an intimate relationship with or without sexual intimacy(1). The victims of IPV are overwhelmingly women who tend to experience more severe forms of violence (2). Violence against women especially IPV still remains a major public health concern with global estimates of one in three women experiencing either physical and/or sexual violence in their lifetime. In sub Saharan Africa, the prevalence of IPV during pregnancy still remains high(3) at 35% while in 2006 in Uganda, the prevalence of IPV among pregnant women was 28% (4).

IPV increases with younger maternal age especially among uneducated and economically disadvantaged women (5). Teenagers stand a higher chance of experiencing IPV because of their limited experience in relationships that hinders their power to bargain coupled with risk taking behaviors that expose them to violence (6). In addition, pregnancy makes teenagers more vulnerable due to the physical, social, emotional and economic demands. (7)

A number of factors such as previous exposure to violence, poverty, literacy levels, cross generational marriages, partner behavioral disorders (4, 8–10) are associated with IPV. In Uganda, studies have been conducted among the general population of pregnant women but there is a paucity of literature on IPV among pregnant teenagers in post conflict Northern Uganda. Therefore, the purpose of this study was to determine the prevalence and factors associated with IPV among pregnant teenagers attending antenatal clinics (ANC) in Lira District, Northern Uganda.

Methods

Study design and setting

This was a cross-sectional study that employed quantitative methods of data collection. It was conducted from December 2017 to March 2018 among 310 pregnant teenagers who were attending antenatal clinics at Lira regional referral hospital (LRRH) and Ogur Health Center IV. Lira regional referral is the largest hospital in Lango sub-region of Northern Uganda and it is a University teaching hospital. The hospital registers about 600 births monthly, with a daily average ANC attendance of 60 pregnant women. A high number of teenagers attend ANC at the facility. Ogur health Centre IV, one of the facilities that refers mothers to LRRH is also a high frequency facility with about 100 births registered monthly, and a daily average ANC attendance of 30 mothers.

Study population and eligibility criteria

The study included all pregnant teenagers attending antenatal clinics during the study period irrespective of the gestational age, gravidity, or parity. Pregnant teenagers with serious illness like severe anemia and or severe malaria and those with labour pains were excluded from the study.

Sample size and sampling procedure

The Kish Leslie formula (11) was used to calculate the sample size. An IPV prevalence of 28% during pregnancy among women at Mulago National Referral Hospital as reported by Kaye et al (2006) was used for sample size estimation assuming 80% power and 95% confidence intervals. This gave a sample size of 310 women (4). Participants were consecutively enrolled until the desired sample size was realized.

Quality control

The data collection tools (Translated version) were pre-tested on 31 pregnant teenagers to ensure consistency and validity, and necessary modifications were made on the tool. The CTS2 tool has been validated with excellent validity and reliability ($r = 0.79-0.95$), and is widely used in Asian countries and in Africa. However, the translated version has never been used in Uganda. This study therefore used the translated version after pretesting.

Research assistants were trained on the data collection procedures, tools and ethical considerations of the study. At the end of every day of data collection the questionnaires were checked for accuracy, consistency and stored until they could be entered in a database.

Participants were provided a private space for interview to ensure audio visual privacy and confidentiality.

Study variables

The outcome variable was IPV during pregnancy while the independent variables included: individual, relational, and pregnancy factors as theorized in the ecological framework for IPV (12). These were considered as potential confounders.

Intimate partner violence was conceptualized as any physical, sexual, or emotional violence by a partner in an intimate relationship (WHO, 2011). The revised Conflict Tactic Scale (CTS2) was adapted and used to measure IPV among pregnant women (13). Physical violence was defined as an act of pushing, pulling, slapping or twisting the arm or hair, punching, kicking, and beating, choking, burning or attacking the woman with a knife, gun or any other weapon (13). Emotional violence was defined as a husband or an intimate partner who humiliated, insulted, shouted, and or threatened the woman with a knife, gun, or another weapon (13). Sexual violence was defined as an intimate partner who used verbal threats or physically forced the woman, and insisted on sex against the woman's will without the use of physical force (13). In this study, IPV during pregnancy was defined as experiencing at least one of the acts specified in the CTS2 exclusively while the woman was pregnant (13).

The exposure variable was childhood exposure to violence and was defined as any witness of a violent behavior in childhood or at the in-law's home; partner's age was considered to be an exposure (age of the partner in completed years from the date of birth) the older the partner, the less the bargaining power in a relationship.

Sociodemographic data, age of the teenager (in completed years from the date of birth), type of family (whether she was married to a nuclear family or extended family), marital status was defined as an act of living together as man and wife or traditionally recognized as being married, religion (any religious affiliation belonging), occupation of the participant, (any kind of activity she engages in to earn a living), monthly income of the participant in US dollar, (amount of money saved monthly). These were considered potential confounders and were controlled by regression analysis. Variables that had a P-value of 0.25 and below were chosen to be tested in the multivariable analysis.

Data collection procedure and data collection tool

Data were collected daily basis by identifying the pregnant teenager from the ANC register, unique identification numbers were given, informed consent obtained and a copy of the written consent retained by the participant. Eligible participants were directed to a private area for the interview.

An interviewer-administered pre-tested structured questionnaire was used to collect data. The CTS2 was adapted by the researcher for measuring IPV during pregnancy. The tool is an open access tool with good internal reliability ($r = 0.79 - 0.95$), and excellent validity, can be accessed at this link (https://www.researchgate.net/publication/240329416_The_Revised_Conflict_Tactics_Scales_CTS2_Development_and_Preliminary_Psychometric_Data) (14). This is the first study to use the Lango translated version of the tool.

The 39-item tool is the original version and includes scales to measure physical assault, psychological aggression and sexual coercion, physical injury and negotiation (14). This study measured psychological aggression, physical assault and sexual coercion only which comprise of 27 items. The items were reduced to 16 items to fit only the aspects being measured and the study population.

The 16 items were scored according to response on how often violence occurred, midpoint score of 2 for response of often, 1 for sometimes and 0 for never, any score of 1 or more in any of the items on the tool represented experience of IPV.

Scoring of the items: A total score for prevalence of IPV was done by adding up the scores per item reported: a score of 0 represented absence of IPV, and a score of 1 and above meant the teenager was experiencing IPV.

Intimate partner violence was then measured by asking pregnant teenagers whether they experienced any form of violence, whether it occurred during pregnancy and how often it occurred during this pregnancy. The tool was tested for internal consistency and validity, it had a good performance of 0.87-0.91 Cronbach's alpha coefficient.

This tool was liable to information bias because of the nature of information being collected; very sensitive and participants were liable to hold back information. This was mitigated by clearly explaining the reason for collecting the information and providing both audio and visual privacy.

Ethical considerations

Approval was given by Makerere University School of Health Sciences Research and Ethics Committee (SHSREC): reference number SHSREC REF: 2017-059. Clearance was obtained from the District Health Officer and the office of the Hospital Director of Lira regional referral hospital. The study participants were informed about the purpose, benefits, and risk of participating in the study and written informed consent was obtained from the

participants. Confidentiality and privacy were maintained by using codes instead of participants' names and interviewing participants one at a time in a private space. Pregnant teenagers below 18 years of age were treated as emancipated minors. Pregnant teenagers who were found to be violated were referred to a social counselor for psycho-social support.

Data analysis

Data were entered, cleaned and analyzed using SPSS version 23.0. Prevalence of IPV was determined using univariable analysis as a proportion. Continuous variables were analyzed using mean and standard deviation if normally distributed and frequencies for categorical variables.

Bivariable analysis was done to find associations with the outcome variable (IPV). Odds ratios and its 95% confidence intervals were used to measure association between IPV and predictor variables, and a p -value < 0.05 indicated statistical significance. Some of the continuous variables at univariable analysis were categorized and included in the bivariable level analysis. All variables with p -values < 0.25 at bivariable analysis were entered into a multivariable logistic regression model to determine independent associations with IPV, a p -value of ≤ 0.05 was considered statistically significant.

Results

The mean age of the participants was 17.37 (SD ± 1.07). A third (33.9%) of the teenagers were 19 years old and the partners were older with a mean age of 24.26 (SD ± 3.74) years. The socio-demographic characteristics of participants and their partners are shown in (Table 1)

[Insert Table 1 here]

Prevalence and forms of IPV among study participants

Overall prevalence of IPV among study participants was 126/310 (40.6%) [CI: 35.13–46.34] and most (89%) had experienced IPV during current pregnancy.

Psychological aggression, a form of IPV was the most prevalent 37.1% [CI: 31.70–42.74], sexual coercion was found in 29.0% [CI: 24.04–34.43] of participants; while physical assault occurred in 24.8% [CI: 20.13–30.04] of the teenage mothers.

Obstetric characteristics of study participants

Most study participants (69.4%) were primigravidae, and more than half (74.2%) attended their first antenatal clinic in the second trimester. Nearly half of the participants intended to be pregnant (44.5%), and only 13.2% had used contraceptives prior to this current pregnancy (Table 2).

[Insert Table 2 here]

Relational/social characteristics of study participants

More than half (58.7%) of the study participants reported witnessing violence in childhood. Most (69.4%) respondents reported that their husbands made major decisions in the home. Very few (9.0%) of the participants reported taking alcohol, however, half (52.9%) the participants' partners were reported to take alcohol (Table 3).

[Insert Table 3 here]

Factors associated with IPV at bivariable analysis

Age of the participant ($p = 0.02$, OR 0.41 [95% CI 0.19–0.81]) and that of the partner, the older the partner, the more the chances of experiencing IPV ($p = 0.02$, OR 4.45 [95% CI 1.28–15.43]); duration of marriage, the longer the duration of marriage the more the risk of experiencing IPV ($P < 0.001$ OR 2.42 [95% CI 1.49–3.91]); major decision making in the home, the more the partner makes decision in the home, the more the chances of experiencing IPV ($p < 0.001$, OR 3.65 [95% CI 2.08–6.39]); nature of relationship, participants in polygamous relationships were more likely to experience IPV ($p < 0.001$, OR 3.615 [95% CI 2.09–6.27]); partner intake of alcohol, partners taking alcohol were more likely to perpetrate IPV ($p < 0.001$, OR 6.71 [95% CI 3.89–11.31]) (Table 4).

[Insert Table 4 here]

Factors associated with IPV at multivariable analysis

The factors that remained statistically significant at multivariable analysis were included: major decision making in the home by the partner, partners dominating major decision making in the home were twice more likely to perpetrate IPV ($p = 0.006$, aOR 2.42 [95% CI 1.29–4.54]); nature of relationship, (polygamous relationship) these teenagers were almost thrice more likely to experience IPV ($P = 0.001$, aOR 2.80 [95% CI 1.50–5.23]), and alcohol consumption by the partner, participants whose partners were taking alcohol were almost 5 times more likely to experience IPV ($p < 0.001$, aOR 4.99 [95% CI 2.87–8.71]). (Table 5)

Teenagers unable to make major decisions in the home, alcohol consumption and teenagers involved in a polygamous relationship were independently associated with IPV occurrences.

[Insert Table 5 here]

Discussion

The prevalence of IPV (40.6%) among pregnant teenagers in Lira district health units is high, This is higher than the national prevalence (28%) in pregnant women and the global prevalence of 30% among women in the general population (15).

This finding is consistent with findings reported by studies elsewhere in Africa and Asia. A cross-sectional study by Silverman (2009) in Bangladesh among 1592 pregnant women aged between 13–20 years reported a 42% prevalence of physical abuse (16). A cross sectional study in Jordan reported a 41% prevalence of IPV (17). In Africa, a 41% prevalence was reported among pregnant women in the reproductive age in Tanzania and in south Africa (18); (19).

The prevalence of IPV in this study was lower (40.6%) compared to findings reported by several other studies. A previous study in Uganda among adolescent women with induced abortion in central Uganda reported a prevalence of 57% (4). Recent studies from sub Saharan Africa among pregnant women in reproductive age found higher prevalence of IPV: 63% in Zimbabwe, 45% in Nigeria, and 51% in South Africa (3, 19, 20). Similarly, a study in Peru reported a prevalence of 52.2% (21). The finding of the current study may be related to the differences in population characteristics since the study was done exclusively among teenage women who may have disclosure issues. The study used an interviewer administered data collection tool which is liable to information bias. (22).

Psychological aggression was the most prevalent form of violence (23). A number of studies in South Africa have reported a similar sequence of occurrence of the forms of violence. A meta-analysis of 92 independent studies, reported psychological aggression being the most prevalent, followed by physical and sexual abuse.(24). Similarly a study by Modiba in South Africa reported psychological violence to be more prevalent, followed by physical violence (19).

This could be related to the complexity of making a diagnosis of emotional violence by different tools. It might as well, be related to the laws and legislation attached to evidence of physical violence which may cause fear in the perpetrators. So psychological aggression is commonly inflicted because it is not evident on the victim (25).

Contrary to the findings of the current study, a study in Mumbai among 2139 pregnant women in the reproductive age, reported physical violence as more prevalent, with emotional aggression and sexual coercion less prevalent (26). The findings of the current study could be related to modalities of administration of the screening tools. For example, this study used an interviewer administered tool while the study in Mumbai used a self-administered tool.

Findings of this study are consistent with a study in Jordan which reported partners taking alcohol being four times more likely to perpetrate violence compared to partners who did not take alcohol (27).

Similarly studies in Zimbabwe, Rwanda and Thailand reported a similar finding (3, 28, 29). Findings of these studies could be explained by the effects of alcohol on the individual behaviors (30). Alcohol intoxication contributes to psychological distress by altering biochemical substances in the body which results into constricted thinking, impaired problem solving abilities, and impulsivity which in turn might precipitate aggression and violent behavior (30).

Major decision in the home dominated by the partner was significantly associated with IPV in this study: pregnant teenagers who were unable to make decisions in the home were twice more likely to experience IPV compared to their counterparts. The findings of this study are consistent with findings of a study from Nigeria, reported decision making domination by the husband being associated with IPV (31). Another study in Bangladesh, reported an increased likelihood of perpetration of violence by partners dominating major decision making in the home(32). Violence against women is more common in communities where there are marked gender inequalities and inequities reinforced by cultural, social, and religious factors have important associations with power relations and violence (33).

The nature of relationship in this study examined whether the participant was involved in either monogamous or polygamous relationship. Participants in a polygamous relationship were four times more likely to experience IPV compared to those in a monogamous relationship. The findings may be related to competition between co-wives for limited resources including attention of the husband (3).

The findings of this study are consistent with a study in Kenya by Makayoto who reported an association between polygamous relationships and IPV (34). Studies in Nigeria, South Africa, Tanzania and Japan have reported similar findings (18–20). This finding may be related to the role of conflict resolution strategies in marital relationships. When multiple individuals are involved in an intimate relationship, tension develops in the relationship creating conflict; conflict in a marriage may take on many forms of conflict resolution which include violence with the woman commonly being the victim (35)

Study Limitation

This was a clinic and hospital-based study and so certain findings of the study may not give the true picture of IPV during pregnancy among women in the community who do not attend antenatal care clinics. This was a cross sectional study which is unable to give causal relationship. Therefore, the findings of this study should be interpreted within this limitation.

Conclusions

About 4 in 10 of pregnant teenagers in Lira district, Northern Uganda experience IPV. This is higher than what has been reported in the general population of pregnant women in Uganda. Teenagers were more likely to experience IPV if they were in a polygamous relationship, were unable to make major decisions in the home and had an alcoholic partner.

Recommendations

IPV screening and counselling should be part of the routine antenatal care package that includes the IPV cycle and prevention mechanisms.

A study of the lived experiences and coping mechanisms of these young girls is recommended.

Declarations

List of abbreviations

AOR: Adjusted odds ratio; COR: Crude odds ratio; IPV: Intimate Partner Violence; MAK-SIDA: Makerere - Swedish International Development Agency; SHSREC: School of health science research and ethics committee

Ethics approval and consent to participate

The study was approved by the Makerere University School of Health Sciences Research and Ethics Committee (SHSREC): reference number SHSREC REF: 2017–059. Clearance was obtained from the District Health Officer and office of the Hospital Director of Lira regional referral hospital. The study participants were informed about the purpose, benefits, and risk of participating in the study and written informed consent for participating in the study was obtained. Confidentiality and privacy were maintained by using codes instead of participants' names and interviewing participants one at a time in a private space. Pregnant teenagers below 18 years of age were treated as emancipated minors. Pregnant teenagers who were found to be severely violated were referred to a social counselor for psycho-social support.

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interest

The author(s) declare that they have no competing interests.

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Author's Contributions

AGA conceptualized the study, wrote the first draft and contributed in the study entirely, JKT, EA, CO & GN were involved in conceptualization, design and implementation of the study including financial contributions. VN contributed in the manuscript writing. All authors read and approved the final manuscript.

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Tables

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