Knowledge and public awareness related to Sexually Transmitted Diseases among women of reproductive age living in Kamwokya slum, Kampala, Uganda.

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Abstract

Background

Sexually Transmitted Diseases (STDs) still stand as one of the commonest health problems affecting women of reproductive age. The knowledge and practices of STDs, among susceptible populations such as women of reproductive age, living in slums like Kamwokya in Kampala Uganda need to be established.

Methods

This was a cross-sectional study with 339 participants in Kamwokya slum. Data was collected using an interviewer administered questionnaire, entered and analysed using SPSS version 17.0. Data was summarized using frequencies for categorical data and medians for continuous data.

Results

Majority of the participants (71.9%) were ≥25years with a mean age of 28.0(SD ±7.0) years. The commonest symptoms known to the participants were genital itching (60%) and genital rash (14.5%). Most mentioned multiple partners (63.7%) and unprotected sex (50.7%) as predisposing factors to STDs. Knowledge on methods of prevention was high (92.3%) however, 18.8% were found positive for STDs using the syndromic approach and 82% mentioned having suffered from STDs in the past 6 months more than once.

Conclusion

Most participants did not know about the systemic effects of STDs to their health and did not follow the appropriate behavior patterns despite being knowledgeable about the various methods of prevention of STDs.

Keywords: STD-Sexually Transmitted Diseases, Kamwokya slum

Introduction

Sexually Transmitted Diseases (STDs) are a group of diseases that are spread through sexual intercourse and mainly affect the human reproductive tract. STDs are a common public health problem worldwide, with developing countries accounting for majority of cases. In 2008, the World Health Organization estimated that up to 499 million cases of curable STDs occurred that year, majority occurring in low income countries1. In Uganda, the prevalence of STD among sexually active adolescents attending a health care clinic was found to be as high as 20.6% among females and 13.2% among males 2. More recently, the national prevalence of syphilis was found to be 2%3.

Infectious agents that cause STD can be classified as either viral, bacterial, protozoal or fungal4–5. STDs can result in serious long-term complications including pregnancy complications, fetal and neonatal demise, cancer, infertility, sexual dysfunction, and enhanced HIV transmission6–8. In addition, STDs have been shown to have serious physical, psychological and social consequence, negatively impacting on social and economic well-being of affected persons9–10. Populations at risk include adolescents, sex workers and their clients, men who have sex with men, prisoners, truck drivers, fishing communities. Additionally, compared to men, women are at an increased risk of acquiring STD, a fact attributed to gender inequity and biological predisposition11.

Despite efforts to control the spread of STDs, reports indicate an upward surge in the incidence of new cases1. This situation is explained by a number of factors including, growing resistance to the common treatment regimens, lack of prioritization of management of STDs with the exception of HIV, STD surveillance, prevention and treatment programmes are generally under staffed and poorly resourced undermining the quality of services rendered by most National programs14–15.

In-addition to biomedical primary prevention strategies such as vaccines, circumcisions, behavioral interventions are a major component of Uganda's strategy towards STD control in the country16. Persistent high levels of STD prevalence suggest that uptake of these interventions remains sub-optimal. To inform the design of effective behavioural preventive strategies, we conducted a cross sectional study to determine knowledge and practices related to Sexually Transmitted Diseases (STDs) among a high risk population, comprised of women of reproductive age living in Kamwokya slum, Kampala Uganda.

Study area

This study was conducted in Kamwokya, an urban slum located in Kampala, the capital city of Uganda. Kamwokya is one of the biggest slums in Kampala, with a population of over 20,000 people, of which more than 50% are children of very low socio-economic status. The slum has a large number of sex workers, vendors, and brewers of local alcoholic drinks.

Study design

This was a cross sectional study design.

Sample size

Our sample size estimate was determined based on the results of a survey conducted in Kampala, that found the prevalence of STDs among women prostitutes to be 33%12. Using Kish, Leslie formula we required a sample size of 335 women to detect an STD prevalence of 33% at a level of significance equal to or less than 0.05 and with power 0.80.

Eligibility criteria

Women aged 18 to 45 years, and who were permanent residents of the Kamwokya slum in Kampala Uganda, were eligible for inclusion in the study. Critically ill women were excluded from the study. Eligible participants who provided written informed consent were enrolled into the study.

Sampling technique and selection of households

Households with eligible participants where stratified into four zones, and consecutively approached within each zone. With the help of local leaders, one of 4 interview teams approached households, where eligible women would then be identified, screened and enrolled. If a woman of reproductive age was not present at home at the time of being approached, that household was excluded.

Data collection

A pre-tested interviewer administered questionnaire designed based on the WHO simplified tool for diagnosis and treatment of STDs was used to collect information from enrolled study participants13. Information collected included; demographic characteristics, socio-economic status, education level, knowledge of types, causes and symptoms of STDs, and prevention methods. Diagnosis of STDs was based on a syndrome approach applied to information captured using the questionnaire. Participants were asked to report only one symptom that they considered to be most associated with an STD.

Data management

All forms for data collection were serialized for proper data management and recording. Data collected was checked for completeness and double entered with EPI data 3.1.

Qualitative data was coded, transcribed and double checked respectively. All data entered was analyzed using SPSS 17.0. Descriptive statistics such as mean, median and standard deviations (SD) were done for continuous variables. Frequency distribution and percentages were done for categorical variables. The analyzed data was then presented in the form of tables, figures and texts.

Ethical consideration and confidentiality issues

Ethical clearance to conduct the study was sought from the Makerere University School of Biomedical Sciences Research and Ethics Committee. Approval was also sought from the Uganda National council of science and technology (UNSCT). Questionnaires were anonymised, and records kept confidentially. Only study investigators had access to patient information. This study was conducted in accordance with guidelines of conduct of research as stipulated by the WHA. Written consent was sought from all participants before enrollment into the study and privacy was ensured during data collection.

Limitation of the study

The study was dependent on the number of people who were willing to consent and take part in the study and the trustworthiness of the participants for the information given.

Quality control

A pilot study was conducted among 10 resident women of reproductive age in Kyebando, a suburb slum prior to the rollout of the main study. During this period knowledge about STDs was assessed. This was to aid in development of a good data collection tool, observe reactions of the respondents to the research procedure such that adjustments are made where necessary.

Results

Social demographic characteristics of participants

Between September and November 2013, we approached 339 women of reproductive age living in Kamwokya slum, and all agreed to participate in the study. Majority of study participants (71.9%) were aged 25 years and above with a mean age of 28.0 (SD ±7.0) years (Table 1). The youngest study participant was 18 years of age while the oldest was 48 years. Majority of participants were married (58%) and nearly half had attained secondary level of education (49%). More than a quarter 112(33%) of the participants had four or more children with a mean number of 3.0 (SD ± 2) children.

Social demographic characteristics of study participants

Knowledge about STDs among study participants

Most participants were aware of types of STDs, with 88% of respondents mentioning at least one of the following STDs, syphilis, candida, HIV, and gonorrhea. The commonest symptoms of STDs reported were genital itching (60%) and genital rash (14.5%; Table 2). In terms of how STDs are transmitted, 63.7% and 50.7 % of participants mentioned multiple sexual partners and unprotected sex as predisposing factors for STDs respectively. However, only 8.6% knew that STDs were caused by micro organisms like bacteria and viruses.

Frequency of the most important symptom of an STD as reported by study participants

Only 169 (51%) could identify specific types of STDs based on signs and symptoms with 71.9% knowing that they are treatable and curable. Half of the participants 169(50%) lacked knowledge on the complications of STDs. Knowledge on methods of prevention of spread of STDs were high (92.3%), with condom use (49%) being the most frequently reported methods of prevention of spread of STDs .

Distribution of participants by knowledge on methods of STD prevention.

Using the syndromic approach, 18.8% of respondents were found positive for STDs, and 82% mentioned having suffered from STDs in the past 6 months prior to the date of interview. Among those who were found positive for STDs using the syndromic approach, 76.6% accessed formal health care services at a hospital or clinic, 7.8% used herbal medicine while 15.6% had not yet sought any medical attention. The main source of information about STDs was from Mulago National referral hospital, which neighbors the slum .

Distribution of participants by the sources of information on STDs.

Discussion

We carried out a cross sectional study to determine the knowledge, practices and prevalence of STDs in a high risk population of women of reproductive age living in an urban slum in Uganda. Consistent with previous studies, we found a high prevalence of STDs in this population. Levels of knowledge in terms of methods of transmission of STDs were high, however levels of knowledge in terms of methods of prevention of spread of STD were modest, particularly so with respect to the current strategies being promoted by the Uganda National health programmes. The high prevalence of STDs in this high risk population amidst relatively high levels of knowledge of STD highlights the challenges of translating knowledge into practice, particularly in vulnerable populations, like the one we studied.

Interestingly, we found that many respondents in this population were not aware of the common predisposing factors of STDs in Uganda with nearly all mentioning at least one of the common predisposing factors. These findings are in contrast to those of a study conducted in a similar set up in Bangladesh which found only 31% of the participants were aware of types of STDs17. Difference in findings may be attributed to the higher level of education noted in our study population. In addition, the close proximity of the slum to a National Referral hospital may have positively impacted on knowledge gain in our study population.

The most frequently reported symptoms included genital itching, burning and genital rash which may be reflective of the commonest form of STDs in Uganda including candidiasis, trichomas vaginalis, gonoccal infection and chlamydia trachomatis.

A small proportion of participants did not know anything regarding predisposing factors for STDs with most mentioning multiple partners (63.7%) and unprotected sex (50.7%) as the major predisposing factors. Despite being the most frequently reported forms of prevention of spread of STDs; these levels are relatively low considering that condom use and avoidance of multiple sexual partners are key messages in Uganda's strategy to control spread of STDs and HIV16. Indeed, these findings suggest that campaign effort by the health sector through government and non-governmental organizations has to an extent played an impactful role to sensitize the population on STDs through mass media and health talks at the various health centers. However, despite resulting in increased levels of awareness, desired target levels are yet to be realized16.

There was a significant knowledge gap with close to half of the participants (40%) having no clue on the effects and complications of STDs on their health and body, and only 8.6% knowing that STDs were caused by microorganisms like bacteria and viruses. This simply means that much of the health education talks address signs and symptoms, predisposing factors and prevention with less emphasis being put on the negative impact of STDs on one's health and body system and causative microorganisms.

Although knowledge on the various methods of prevention as shown in Table 3 was high (92.3%), it was not followed by appropriate behavioral patterns. This can be evidenced from the results were 18.8% were found positive for STDs using the syndromic approach and 82% mentioned having suffered from STDs in the past 6 months more than once. These findings are similar to a study done by Sekirime et al18 which also found that the level of knowledge about STDs and their prevention is not matched by sexual behavioural patterns; most participants still practiced risky sexual behaviour and had contracted STDs.

Among those who were found positive for STDs using the syndromic approach, majority (76.6%) followed the appropriate health seeking behavior. This involved using authentic medication prescribed from the hospital or from a local health clinic in the community. This is different from a study done by Elahee et al17 which found 70% of the women did not seek any treatment for the STDs from any healthcare provider. Most of the respondents (66.6%) utilized home remedies to treat the infections and only, 23% of the respondents consulted specialists or a health center.

The cross sectional study design is prone to validity issues which include information bias, selection bias and confounding19.However we minimized these biases by developing our questionnaire based on the WHO simplified tool for diagnosis and treatment of STDs using the syndrome approach, training of the four teams of interviewers, carrying out a pilot testing for its appropriateness before commencement of the whole research project. We also divided the slum into four zones during data collection. Confounding by extraneous variables in the data was minimized by restriction of study participants according to the eligibility criteria.

Conclusion

Most of the participants knew about types, symptoms, predisposing factors and means of prevention of STDs, although majority did not know about the systemic effects or consequences of STDs to their body and the causative micro organisms.

Majority of the participants didn't follow the appropriate behavior patterns despite being knowledgeable about the various methods of prevention of STDs.

Recommendations

There is need for further investigation in other slums in Uganda to establish the extent to which the slum populations contribute to the total country wide prevalence of STDs which is still high. This will enable priotization of interventions and probably establish which populations need more attention.

There is need to understand the barriers to healthy practices despite being knowledgeable about them so as to enable proper interventions for sexual health among young women.

A similar study should be done among men living in slums as they are also vulnerable to STDs.