Prevalence of Sexuality and The Use of Contraceptives among Female Students: Specific Case of the Adventist University of Goma

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ABSTRACT

Knowing that unwanted pregnancies can constitute an obstacle to the normal course of studies and that contraception is a means that can facilitate the avoidance of unplanned pregnancy, we initiated this study with the aim of determining the prevalence of sexuality and the contraceptives use amongst female students. A self-administered questionnaire was submitted to 94 female students out of a total of 823. At the end of the survey, the following results were obtained: The average age of the students is 22.1 ± 4.1; 100% have information on contraceptive methods, the main source of information is the radio (37%) but the information received on campus about contraceptive methods represents 26%. 67% of female students have a favorable opinion of contraception; 53% female students are currently using contraceptive methods [reflecting an active sexuality] against 47% who do not use any and 31% have opted for modern contraceptive methods. 100% are self-supported regarding the acquisition of contraceptives. Therefore, the study recommends the integration of sexual and reproductive education programs, and provide spaces for exchange to improve knowledge in the field of sexuality and contraception.

Keywords: Adventist, Contraceptives, Prevalence, Use.

I. INTRODUCTION

The whole world is currently facing the phenomenon of unwanted pregnancies. The statistics are alarming about this. The UNFPA reports that “Nearly half of pregnancies worldwide are unintended pregnancies, totaling 121 million every year [1].

The data made available through the study of Ayalew almost matches the UNFPA report. According to his study, “Each year, out of a total of 210 million pregnancies that occur worldwide, 38% are undesired and 22% terminate in abortion” [2].

Statistics reports that of the 100 million sexual relationships each year in the world, 3 million pregnancies are conceived, of which half or 50% are not planned and a quarter or 25% are quietly undesirable. young women who report an unwanted pregnancy and an unmet need for contraception have a higher rate in developing countries [3].

Unwanted pregnancies are prevalent in USA, Europe, Asian and African countries although at relatively different rates. The example of USA is somehow surprising where 45 unintended pregnancies for every 1,000 women aged 15–44 are reported, to mean that in other words, approximately 5% of women who are actively reproductive each year have an unwanted pregnancy. Note that according to the report at the time, it was revealed that among all other developed countries, the rate of unintended pregnancy was significantly higher in the United States [4].

Some years ago, were reported that among Iranian women, the prevalence of undesired pregnancy was 27.9% (95% CI: 24–32.1%). This is a very high rate of undesired pregnancies [5].

From 2015 -2019, there were approximately 6,370,000 pregnancies per year (in Eastern Europe) of which 3,290,000 undesired pregnancies and 2,170,000 terminated in abortion; 1,770,000 pregnancies (in Northern Europe). Of these, 823,000 pregnancies were unwanted and 299,000 terminated in abortion; 2,060,000 pregnancies per year (in Southern Europe), of which 843,000 undesired pregnancies and 464,000 terminated in abortion; 2,770,000 pregnancies (in Western Europe), including 990,000 unwanted pregnancies and 377,000 ended in abortion [6]. As for African countries, the sub-Saharan Africa statistics show that about one-third (29–33%) of pregnancies have been described as unintended: [...], more than half or 50% of undesired pregnancies terminate in abortions and 97% of these are unsafe [7].

Data from the Guttmacher and WHO survey in DRC (2021), show that “80% of pregnancies among young women aged 15-19 were unintended, versus 53%-67% among women aged 20-49. The study highlighted the high levels of
unmet need for modern contraception; that is, many sexually active adolescents would like to avoid pregnancy but did not use a modern method” [8].

We were concerned to know if among these reported unwanted pregnancies, some would occur among students but the current literature does not have updated data on this except information made public by the newspaper “Actualité.cd” that shows that "millions of young girls see their dreams shattered because, unfortunately, most girls who become pregnant no longer go back to school” [9].

Beatrice A. cared about the causes of abandonment among Female students of Secondary Schools in Nigeria. She led to the results according to which among the reasons for dropping out of school are unwanted pregnancies [10].

Given that the university environment is a space where the student has a certain freedom, some manage it badly by doing all sorts of possible experiments, even the most dangerous and which are of no interest. Some of his experiments lead to disastrous consequences. One of its consequences is pregnancy.

Ayalew’s survey shows for example that “the majority of undergraduate Female students at Woldia University have experienced an undesired pregnancy on campus but unfortunately the university did not pay too much attention to the problem” [2].

According to Phiri and al, from South Africa, “In universities, young women can experience an undesired pregnancy as a result of risky sexual behavior in their academic environment marked by the lack of utilization of condoms and/or contraceptives and duress” [11].

School pregnancies have academic, social, economic, physical and psychological consequences.

Considering the dimensional varieties of these effects on student life, effective means to stem this situation must be put in place. So, as suggests UNFPA, “Strategies for preventing pregnancies in school are essentially the following elements: improving access to education/information for young people and pupils, in particular on reproductive and sexual health, access to services adapted to the wishes of young people ... [12].

A. Statement of the Problem

Insofar as socio-cultural and religious barriers would hinder the implementation of sex education and reproduction, as well as the access to kits for this issue, this would constitute an obstacle to the strategies envisaged and would increase the prevalence of unwanted pregnancies occurring during student life. However, globally, it is accepted that nearly a quarter of all women are unable to say no to sex [1], to signify that it is possible for active sexuality to be experienced among single female students even though church norms are against this practice. it should be taken into account that not all students attending Adventist universities are necessarily members of the Adventist Church or necessarily adhere to their faith. it should also be noticed that among the female students, some are single and others are married and for this last category, no restriction about sex.

Another important indicator is that among the causes of school dropout, are part of unwanted pregnancies, pushing to suspend studies as underlined by an academic report in the field of health sciences where at the end of the academic year 2021- 2022, 3 cases have been recorded [13].

Given that in the current context, sexuality implies on the one hand contraception, and on the other hand, the effective knowledge on how to make this, we were interested in determining the prevalence of contraception use among active sexual students.

B. Study Objectives

The main objective is of determining the prevalence rate of sexuality and contraceptive use amongst female students. Specifically, the study aims to reassure itself of the availability of information relating to contraception by female students and of their sources- determine the proportion of female students using a contraceptive method- assess the overall opinions of female students on contraception - determine the means of financing for the acquisition of the contraceptives used.

C. Review Literature

In order to clearly clarify the problem of sexuality and its consequences on academic student's life, it is appropriate to review the existing literature. Note that this review of the literature is essentially empirical.

We are not the first to think about sexuality and its consequences in universities. a study conducted among Chinese students by Masako found that although the prevalence of sexuality remains low, it still exists. “the survey conducted in various regions revealed that those who are sexually active [8.6%] are in the range of 5 and 20% [...] and that the sexual attitudes and behaviors of the Chinese people are changing very quickly, and become more liberal and active. young people are increasingly having sex in low age, generally without protecting themselves [14].

We could have been interested in knowing the direct consequences related to sexuality in this environment, given this risky behavior, underlined by the fact that some sexual relations are not protected, surely the consequences must follow, in particular unwanted pregnancies. This was not reported by the study.

A study was conducted in Tanzania with the main objective of evaluating contraceptive knowledge. Sexual behavior and utilization of contraceptives amongst undergraduate’s female students. The results of that study showed that “70.4% of students were sexually active. All participants have information about contraception and 74.7% of those who had had sex started sexual activity in the age range of 19-24 years” [15]. Indeed, the study entered in-depth revealing much information namely: “58.5% of sexually active women declare having used contraception before; 41.5% were current users of contraceptives. Condoms and pills are used (24.3%) and (16.8%) respectively and were the most known contraceptive methods. condoms, withdrawal and periodic abstinence are the most used methods. Information about contraception was received either from friends (39.5%), from the radio (36%) and from school (24%). Forty women had pregnancies of which 27% had unwanted pregnancies and in this last category, 54.6% had an induced abortion.

As for Arowojolu in Nigerian undergraduates led to the results according to which “87% were sexually active and 66% had at least one sexual companion, 17.5% had secret abortions; 34.2% were current users of contraceptives; about 58% recognized pharmacies as a source of contraceptives; -
According to him, sites specially designed for the provision of services offering the appropriate contraceptives to student learners by trained agents are essential in establishments to alleviate their reproductive health problems” [16].

Regarding the study of Devika Merha [17] among Ugandan university students, the results are as follows: “60.3% of respondents had had sexual intercourse, of which 18.6% did not use contraceptive methods during the last coitus. It is quite normal that non-sexually active individuals have a very low score in relation to the use of contraceptives because contraception always goes with sexuality.

At Madawalabu University, a study showed that “the survey participants had an average age of 20.74 years with a range varying between 19.27-22.21. The proportion of unwanted pregnancies among those who are sexually active was 8.1% [...] Having received information on family planning, regular use of family planning in the last twelve months and consumption of alcohol during past week were significantly associated with undesired pregnancy” [18]. It should be noted that the multiplicity of sexual partners is significant in terms of the incidence of unwanted pregnancies (p = 0.003). The unfortunate thing is that the majority of those who have undesired pregnancies end up resorting to induced abortion [19].

Aras and his co-authors were in interested in sexuality in both genders at Turkey university. The results are such that “among male students, the prevalence of sexual intercourse was higher than among female students (61.2%) versus (18.3%). The men had their first sexual intercourse at a younger age than the women surveyed. The proportion of condom utilization at first sexual intercourse was 47.4%” [20].

Olaitan meanwhile, has been interested in the causes of unwanted pregnancies in universities. According to him even if ignorance on behalf of the parents on sex education, poverty and lack of teenager interest on sexuality and reproductive in the school were not significant, the following recommendations should be taken into consideration: “Parents must provide their children with sufficient financial means; the implementation of sex education as an element to be included in the school curriculum; operation of family planning programs/clinics should be established in schools” [21]. It is important to know that “poor practices towards contraception and neglecting youth’s contraceptive needs contributes greatly to high rate of unintended pregnancies” [22].

After going through these various studies which have revolved around sexuality and the use of contraceptive methods by students, gaps emerge which are not of a methodological nature but which relate to the population concerned and the time lag. While many studies have focused on overall students (boys or girls) of any religion, the present study focuses on female Adventist students. Note that no study of this kind has been found (conducted) in the Democratic Republic of the Congo and even less so in the city of Goma.

D. Scope of the Study

The study was carried out at the Adventist University of Goma, located in Salamabila avenue, Katindo Quarter, Karisimbi Commune, Province of North Kivu, in the Democratic Republic of Congo and covers a period of 2 months from September 1 to October 31, 2022.

II. METHODS

A. Study Design and Sampling

This study is a cross-sectional descriptive covering a period from March 01 to September 30, 2022. The study population is made up of female students from the Adventist University of Goma, whose total number is 249 out of 791 students representing 31.5%. The sample size is determined by the Lynch's formula [23] which is:

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n = \frac{N \cdot [Z' / x] ^2 \cdot P \cdot (1 - P)}{N(d)^2 + (Z')^2 \cdot P \cdot (1 - P)}
\]

with:

*P* = Proportion of individuals who have the characteristic to be studied (as it is not known, the proportion to use is 50% = 0.5); *Q* = Proportion of individuals who do not have the characteristic to be studied (as it is not known the proportion to be used is 50% = 0.5); *Z* = value of the confidence coefficient relating to the precision sought with the degree of error (α) = 0.05, the z value is 1.96; *d* = degree of precision in estimating the proposal of people with the characteristic, it is 0.05.

So, \( n = \frac{249(1.96)^2 \cdot 0.5 \cdot 0.5}{249(0.05)^2 + (1.96)^2 \cdot 0.5 \cdot 0.5} = 151 \) female students,

According to Le Maux Bénoin, when the size of population is <100,000, it is necessary to use a correction factor that is:

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nf = \frac{n}{\frac{N}{n}} = \frac{151}{1 + \left(\frac{151}{249}\right)} = 94 \text{ female students [24].}
\]

The stratified random sampling allowed to make a distribution according to the proportion of students in each field of study. The strata and their respective numbers are as follows: Economy: 15, Community Development: 6, Psychology: 12, Educational sciences: 5, Business informatics: 8, Medical techniques: 42, Building and public works: 6.

B. Inclusion Criteria for the Study

Is included in the study: *Being effective female student of University of Goma, *being present during the interviews, *having a free will to answer to the survey questionnaire.

C. Variables

The study looked at the age of the students, the marital status, domain followed at the university, the state of information about contraceptive methods, the source of information, the opinions of the students on the use of contraception, current use of contraceptive methods, types of contraceptive methods as well as financing with regard to the purchase of contraceptives.

D. Ethical Principles of the Research

The study has respected ethical principles of research such as requirement of signing free and informed consent by female students. The study was approved by the ethical board of Adventist University of Goma referenced under the
number UAGO-CE-2022-30-03. All participating female students had been reassured that the data provided would be kept confidential.

E. Instruments of Data Collection

To collect data from our respondents, the study used a self-administered questionnaire either in hard copy or in soft copy through google forms.

F. Statistical Analysis

After having collected the data which were entered and encoded using SPSS, the data were imported into the R software for analysis and interpretation.

III. FINDINGS

The results of this study are grouped into four tables. The first takes up the Socio-demographic characteristics including age, marital status and area followed at the University. The second includes the state of information on contraception and the source of information on contraceptive methods. The third focused on the current use of contraceptive methods as well as the methods chosen. Finally, the fourth table provides information on funding for the acquisition of contraceptive methods. All results are in simple tables that show the proportion of respondents as a percentage of the sample size except age to which was calculated the mean and standard deviation.

The average age of the students is 22.1 with the standard deviation of 4.1; single female students were predominant with 94% while the field of medical techniques alone accounted for 45%.

All the students (100%) say they have information on contraceptive methods, the main source of information being the radio (37%). Note that the information received on campus about contraceptive methods represents 26%.

IV. DISCUSSION

The sociodemographic features of the respondents are such as the mean age of the students is 22.1 with the range of 18-26.1; single female students were predominant with 94% while the field of medical techniques alone accounted for 45%. According to research done in many university institutions, the mean age of female students is around 20 years old [18], [19].

Usually, secondary school in the region ends at the age of 18, many candidates go directly to university. Therefore, the concentration of female students in the interval of 18 to 22 years is quite normal because the student who started on time, can easily finish his master's degree at the age of 23. Also, single people attend university than married people, since the latter are preoccupied with finding ways to provide for their family members. The high frequency of respondents in medical techniques, is due to the fact that at the Adventist University of Goma, they are the girls who attend the field of medical techniques more. Concerning the possession of information on contraceptive methods and its sources, it turns out that all the students have the information (100%) and that the main source of information is the radio (37%). The information received on campus about contraceptive methods represents 26%. A study from Woldia University undergraduate students showed the results almost similar to these. According to that survey, “students receive information relative to contraception from friends (39.5%), radio (36%), school (24%) and (24%)” [2].

Note that information in the university environment has a very low rate whereas, students should normally have access...
to reliable and regular information in relation to the contraceptive methods to be used, especially since they are scouts for other members of the community.

As Winston Churchill said, "it is better to give information than to receive it" [25]. As intellectual people, female students should not only receive information on radios, rather, programs of sexual and reproductive education should be included in the academic curricula or even a space for exchange sessions organized regularly should improve the knowledge of students in this area. Noël Mamère also said "Too much information kills information" [25]. Much information came to the community with many gray areas that need clarification. Also remember that some of the non-concise information, without feedback has been the basis of rumors and confusion to individuals supposed to use the services. Therefore, female students should have the correct information on sexual and reproductive health.

At Adventist University of Goma, 67% of female students have a favorable opinion of contraception; 53% or 1 out of 2 female students declare the current use of contraceptive methods against 47% who do not use any and 31% have opted for modern contraceptive methods as the methods of their choice. Considering the religious teachings of the Adventist Church which advocate total sexual abstinence among unmarried young, it is surprising to find a high prevalence of sexuality among female students, which was covered up indirectly by the declaration of the use of contraceptives. It should be noted that no married women had been questioned, all the answers came from single people. Female students have a favorable view of contraception and they use it. We should also point out that not all sexually active people necessarily use contraceptive methods. Therefore, the prevalence of sexuality would be higher among female students.

Reference [17], who made survey in Ugandan university students, found results that support mine by showing a high prevalence of 60.3% active sexuality and, of these, only 18.6% did not use any contraceptive method the last time they had sex.

Contrary to these findings, in the United States and Canada, "lower proportions (16.3%) of sexual encounters among students attending SDA schools were reported compared to those attending other schools (53.1%) and respondents were more likely to have sex, substance use if at least one parent used tobacco, alcohol or marijuana [26]. From 1998 to 2000, i.e. 24 years, people's habits are changing. Society exerts its influence on the behavior of individuals, this is what we think of this difference in results. For [27] "religious institutions need to focus on factors that influence levels of self-efficacy, rather than emphasizing a sexually abstinent lifestyle."

For other nonreligious universities, overall rates of sexuality and contraceptive use were reported: "87% of respondents who were sexually active, 66% of them had more than one sexual companion, 17.5% had clandestine abortions; 34.2% were current users of contraceptives in Nigerian students" [16]; "Condom are the commonest contraceptive used (37.4%)" [19]; withdrawal and periodic abstinence [15].

The enormous consequences linked to this active sexuality have been noted in most universities: for example, unwanted pregnancies, (18), resulting from the non-use of contraceptives as condoms by feeling embarrassed or ashamed to use or purchase condom/contraceptives“ [16].

V. CONCLUSION

In the face of documentary silence on sexuality and contraception in university arias, especially Adventist institutions in the DRC, the study revealed for the first time a high prevalence of sexuality and use of contraceptives (53%); female students face difficulties access to safe and regular information on campus but also the acquisition of contraceptives because the financing is personal. In view of the above, the study awakens the minds of university leaders to consider female students as social and global individuals susceptible to any eventuality. Therefore, the study recommends the integration of sexual and reproductive education programs, offering space for exchange to improve knowledge in the field of sexuality and contraception.

LIMITATIONS

The study was much more limited to establish the prevalence of sexuality and the contraceptives’ use amongst female students. It has not address all aspects of sexuality and its direct consequences such as undesired pregnancies. It has not been interested in young men and what they think about sexuality and contraception. Also the study did not go in depth to seek to know the details on the modern contraceptive methods used.

AUTHOR CONTRIBUTIONS

AIA and CAM contributed to the conception and design of the study. They carried out the survey by administering the questionnaire to the respondents. The collected data was entered, encoded by ESS before being imported into the R software by AIA for analysis, interpretation and presentation. All authors have read and approved the final report.

DIRECTION FOR THE FUTURE RESEARCH

Future researchers following in our footsteps can expand the study by involving male students, staffs, and university leaders in strategies that can help students meet their sexual and reproductive health needs.

DATA AND MATERIAL AVAILABILITY

Data and materials are available upon request to the corresponding author.

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CONFLICT OF INTEREST

Authors declare that they do not have any conflict of interest.

REFERENCES


