Knowledge, Attitudes and Practices of Contraception Among Tertiary Students at the University Campus in Namibia

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Abstract

The purpose of the study was to investigate the knowledge, attitude and practices of female tertiary students at the University of Namibia regarding contraception. The objective of the study was to assess and describe the knowledge, attitudes and practices of University of Namibia Education students at Rundu campus, regarding contraception with a view to make recommendations based on the findings of the study. A quantitative, descriptive cross-sectional design was used and a total of 220 female tertiary students from Rundu Campus were selected using simple random sampling. Data was collected from participants by the use of a self-administered questionnaire. Findings from this study showed amongst other that majority (80%) 166 showed poor practices towards contraception. However, the study showed that (91%) 202 has positive attitude regarding contraceptives and that this greatly contributes to high rate of unintended pregnancies as well as Sexually Transmitted Infections among them. It is recommended that in order to prevent unintended pregnancies as well as high incidences of Sexually Transmitted Infections among tertiary students, the Ministry of Health and Social Services must introduce a regular reproductive health outreach programme on campus, or establish a clinic on campus. Neglecting youth's contraceptive needs contributes to high rate of unintended pregnancies, Sexually Transmitted Infections, HIV/AIDS and, indirectly; maternal mortality.

Keywords: knowledge, attitudes, practices, students, contraception

1. Introduction

Contraception is a human right, vital for improving women's health, lack of which exposes young women to Sexually Transmitted Infections, and unintended pregnancies. Worldwide, the use of modern contraceptions has improved somewhat from 54% in 1990 to 57.4% in 2015. In all regions of the world, the proportion of women aged 15 to 49 years who use modern contraceptive methods recorded a slow growth between 2008 and 2015 (WHO, 2018). In Africa, contraceptive use rose from 23.6% to 28.5%, in Asia it rose slightly from 60.9% to 61.8%, and in Latin America and the Caribbean it has remained stable at 66.7% of women in reproductive age (WHO, 2018). Although the use of contraception has improved in many parts of the world, especially in Asia and Latin America, it has continued to be low in sub-Saharan Africa (WHO, 2018).

The World Bank has revealed that Sub-Saharan Africa has the highest average fertility rate in the world. In 2009, the average number of births per woman was 5.1 which is more than double that in South Asia (2.8) or Latin America and the Caribbean (2.2). Also, the average contraceptive prevalence rate in Sub-Saharan Africa of 22% is less than half that of South Asia (53 percent) and less than a third that of East Asia (77 percent) (World Bank, 2009). The same report by the World Bank shows that 55.3% of women of the reproductive age in Namibia use modern methods of contraception (World Bank, 2009).

In 2018, there were 1532 students registered at the University of Namibia Rundu campus for full time studies in the Education faculty, with 804 of them being female. On average there have been 15 pregnancies reported in the faculty every year. The practices of these students relating to contraception were unknown but the high rate of pregnancy made femalestudents questionable. Insufficient knowledge of contraception may contribute to high rates of unwanted pregnancy. The rate of adolescent pregnancies in the Kavango region is 27% of all adolescent pregnancies in Namibia, and this is the highest rate nationwide. Moreover, Kavango region has the lowest average

age at first birth in Namibia, which stands at 19.3 years (Ministry of Health and Social Services, 2013). Unfortunately, unplanned pregnancy may result in interrupted schooling, mainly due to pregnancy related ailments and Ante-Natal Clinic visits that may take the whole day, and therefore may result in poor academic performance (Gyan, 2013). Unavailability of an on-site clinic on campus to cater for the students' reproductive health needs may have contributed to their practices towards family planning.

Insufficient knowledge of contraception coupled with negative attitude and poor practices towards the same, can also contribute to the risk of contracting HIV. UNAIDS has revealed that HIV/AIDS remains the number one killer in Namibia causing up to 3,900 deaths for the year 2018. National prevalence of HIV in the reproductive age (15–49 years) is 13.3% of all those who are infected (UNAIDS, 2018). An estimated of about 200 000 are said to be living with HIV in Namibia (range 200,059–236,933). It is further stated that 17% of the total population of people with HIV in Namibia is found in Kavango East region where Rundu is located (UNAIDS, 2018). The rate of infection in the country and the region remains unacceptably high, despite having many measures in place to combat the scourge of HIV/AIDS. Amongst others, these measures include the Prevention of Mother to Child Transmission (PMTCT), Provider Initiated Testing and Counselling (PITC), free adult and pediatric treatment, male circumcision (UNAIDS 2018).

The above phenomenon brought about the central question: What is the knowledge, attitude and aractices of female tertiary education students at the University of Namibia Rundu campus regarding contraception? This was significant because they are ambassadors who can influence the knowledge and attitude of their future learners. Research in the field of contraceptive knowledge and attitude in Namibia is relatively limited and thus there are no known studies on the topic that have been conducted at any institute of higher learning in Namibia.

2. Goals and Objectives

The goal of the study was to investigate the knowledge, attitude and practices of female tertiary students at the University of Namibia Rundu campus regarding contraception. The study objective was to assess and describe the knowledge, attitudes and practices of tertiary female students at the University of Namibia regarding contraception.

3. Methods

3.1 Design

The study utilized a cross-sectional, quantitative and descriptive design as this is a relatively efficient and inexpensive design for collecting data from a huge number of participants in a survey, (Brink, van Rensburg, & van der Walt, 2018).

3.2 Setting

This study was conducted in Namibia at one of the satellite campuses of the University of Namibia, located in Kavango East Region (Rundu Campus) in the Faculty of Education, , . The University of Namibia is a premier institution of higher learning in Namibia that has 12 satellite campuses nationwide. The University of Namibia, at its Rundu Campus, hasthree faculties, , namely: Faculty of Health Sciences, Faculty of Economics and Management Sciences and Faculty of Education respectively.

3.3 Study Population

The study population included all female students studying Education at the University of Namibia, Rundu Campus who were enrolled in full time study mode.

3.4 Inclusion and Exclusion Criteria

All female students studying Education on a full-time basis at the time of the study, who were willing to participate, were included in the study. Female students from other faculties namely: Faculty of Health Sciences and Faculty of Economics and Management Sciences; as well as female students studying Education, that were unwilling to participate in the study were excluded from the exercise.

3.5 Sampling and Sample Size

Participants were selected using simple random sampling from the list of 804 female students. This sampling technique was preferred because it promotes representation of the total population (Brink et al., 2018). A total of 267 data collection instruments were prepared and distributed to female students.

3.6 Data Collection Tool

In this study, the primary tool for data collection was a self-developed questionnaire. This data collection method

was employed, as it is considered to be a relevant tool to use when the researcher seeks to collect data from large sample (Maree, 2016). The questionnaire was pre-tested on 10 respondents and had four sections with closed-ended questions and open-ended questions. To ensure validity the data collection instrument was pre-tested to respondents who were homogenous to the sampled population while the statistician's approval and offering respondents similar questions ensured reliability.

3.7 Data Collection Methods

An amount of 267 questionnaires were distributed to potential participants, and a total number of 220 questionnaires were completed and returned. Appointments with respondents were made on voluntary basis with the mentally fit respondents and data was collected after ethical clearance was obtained from the University of Namibia. The researchers distributed questionnaires which were completed in a designated room on campus in order to ensure anonymity. The assigning of codes to the questionnaires guaranteed confidentiality. Data was collected from September 2018 and October 2018 with respondents taking 20 to 30 minutes to complete the questionnaire.

3.8 Data Analysis

Data analysis from the questionnaires was presented as descriptive statistics and evaluated with quantitative, computerised statistical techniques, using SPSS version 24.

4. Ethical Considerations

Ethical principles were adhered to in accordance with the Helsinki Declaration and this study was granted an ethical clearance by Ethics Committee of the Faculty of Health Sciences at the University of Namibia (SoNEC 03/2018).

5. Results

5.1 Socio Demographic Description of Study Participants

5.1.1 Age of Participants (N=220)

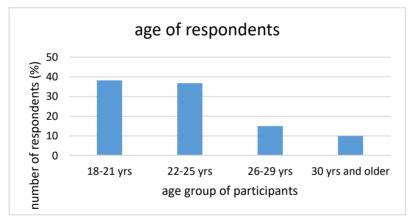


Figure 1. Age distribution of participants

Figure 1 above shows the age of participants. Majority of the participants 38.2% (84), were in the 18–21 year age group, whereas 36.8% (81) of the participants were from the 22–25 year age group. In addition, 15% (33) of the respondents were in the age range of 26–29 years old and 10% (22) of the participants belonged to the 30 years and older age group.

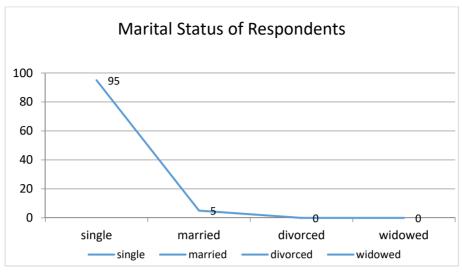


Figure 2. Marital statuses of respondents

5.1.2 Marital Status of Participants (N = 220)

Figure 5.1.2 above shows the marital status of respondents. According to the results of this study; of the respondents, 95% (209) were single, and 5% (11) were married. There were no divorcees or widows among the participants. With the majority of the respondents being single, respondents were likely to experience major challenges of dropping off from school, role conflict, mental distress and lack of support (Mangeli, Rayyani, Cheraghi, & Tirgari, 2017).

5.1.3 Respondents Year of Study (N = 220)

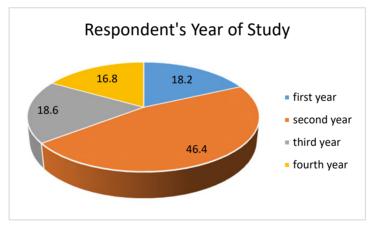


Figure 3. Respondents year of Study

Figure 3 above shows the level of study of the participants. First year students made up 18.2% (40) of those who took part in the study, while the greater number of the participants (46.4%) (102), was composed of second year students, third year students were 18.6% (41) of the respondents and 16.3% (36) of the participants were final year (fourth year) students. The researchers wanted to establish if level of studies could have an influence on knowledge, attitude and practices towards contraception.

5.1.4 Respondent's Religious affiliation (N = 220)

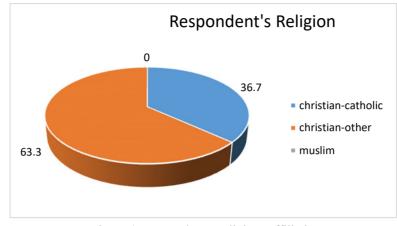


Figure 4. Respondents' religious affiliation

Figure 4 above shows the respondent's religious affiliation. Participants were asked to specify their religious affiliation. According to the study results, 36.7% (81) of the respondents reported that they were Roman Catholic and 63.3% (139) were from other Christian denominations. There were no Muslim participants or respondents from other religions denominations. Researchers wanted to find out if religion had any influence on participant's knowledge, attitude and practices with regards to contraception.

5.2 Knowledge of Participants With Regards to Sex and Contraception

5.2.1 Knowledge of Respondents on the Consequences of Unprotected Sex (N=220)

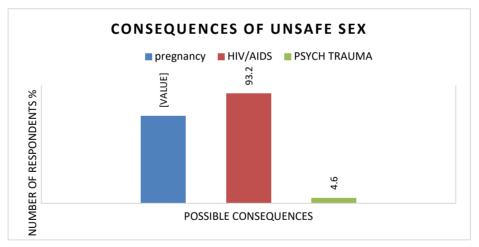


Figure 5. Knowledge of respondents on the consequences of unprotected

Figure 5 above shows the respondents' perceptions with regards to the likely after effects of unprotected sex. A massive 93.2% (205) of the participants acknowledged that unprotected sex can lead to HIV infection and other Sexually Transmitted Infections whereas, 74.1% (163) of the participants recognized pregnancy as a consequence of unprotected sex. Surprisingly, only 4.5% (10) of the respondents regarded psychological trauma as a negative result of unprotected sex.

5.2.2 Participants Knowledge of Different Contraceptives (N=220)

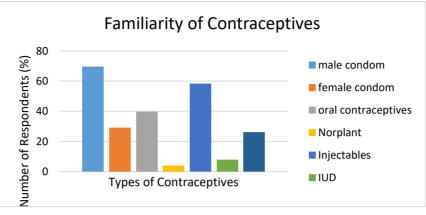


Figure 6. Participants knowledge of different contraceptive methods

Figure 6 above shows respondents' familiarity with different family planning methods. The majority of respondents (69.6%) (153) were accustomed to the male condom while, 58.2% (128) were familiar with the injectable contraceptives, such as Nuristerate and Depo-provera. Quite a number of participants (39.6%) (87), also recognized the oral contraceptives, 29.1% (64) acknowledged the female condom, whilst 25.9% (57) knew about withdrawal. The least known were intra-uterine devices (7.7%) (17) and Norplant (3.64%) (8). This implied that the majority of respondents had an idea on the form of contraceptive available with the male condom being the well-known method. According to Nsubuga, Sekandi, Sempeera, & Makumbi (2016) about 88.4% had knowledge of the male condom as a common form of contraceptives used by university students in Uganda.

5.2.3 Participants Knowledge of Possible Side Effects of (N=220)

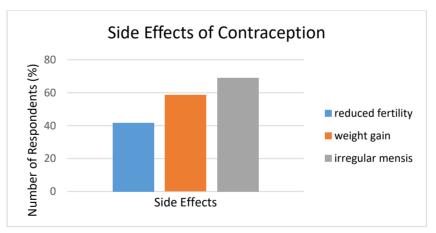


Figure 7. Participants knowledge of possible side effects of contraception

Figure 7 above shows the knowledge of participants regarding the possible side effects of contraception. Majority of participants 69.1%, identified irregular menstruation as a possible side effect associated with the use of contraceptives. Weight gain was another popular side effect chosen by 58.6% of the respondents. 41.8% of the respondents were aware that contraception causes reduced fertility. This study did not determine how many females had weight gain as the result of contraception use, but it could imply that adolescents are careful of their body images and appearance (Voelker, Reel, & Greenleaf, 2015).

5.2.4 Source of Information (N=220)

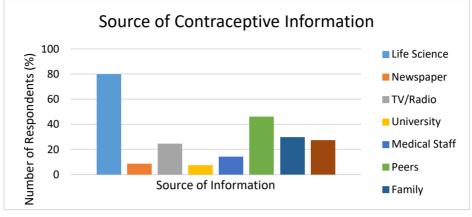


Figure 8. Source of information about sex and contraceptive methods

Figure 8 above illustrates the common sources of information. Majority of participants 79.6 % (175) of the respondents had learnt about sex and family planning through Life Science class in High School whereas, 45.9% (101) had learnt through their peers, 29.5% (65) through family, and 27.3% (60) learnt through internet. Accordingly 24.5% (54) claimed to have attained information through television and radio, while another 14.1% (32) were informed by medical staff, 8.6% (19) through the newspaper and the least likely source of information was the university lectures.

5.2.5 Relevance of Sex Education for University Students (N = 220)

Majority of the students acknowledged that university students have poor knowledge regarding sex and contraceptives and therefore require sex education (93.6%) (206). Interestingly, 6.4% (14) of the respondents felt that sex education was not essential for university students. The low number of respondents against sex education at university level may be associated with personal beliefs, culture or religion. Figure 9 below shows the views of the respondents regarding sex education.

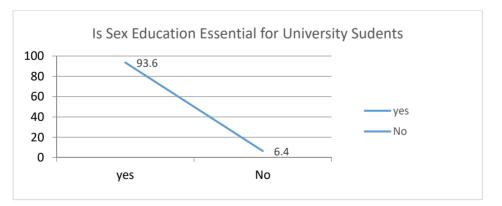


Figure 9. Relevance of sex education for University students

5.3 Attitudes of Participants With Regards to Contraception

5.3.1 Views on Sexual Abstinence (N=220)

Figure 10 below illustrates participants' views on abstinence. Majority of the respondents, (90.7%) (200) were convinced that it is important for both males and females to abstain from sex. However, 5.1% (11) of the participants felt it is not important for either male or female to abstain, whilst 4.2% (9) felt it is more important for females to abstain than it is for males. The results could suggest that more than before female and male students have an equal role to play with regard to abstinence.

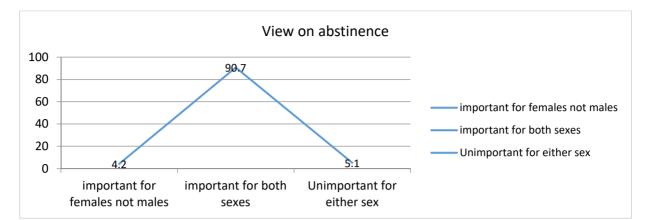


Figure 10. View on abstinence from sex

5.3.2 Opinion on Premarital Sex (N=220)

Figure 11 below shows the participants' view point, with regards to premarital sex. 27.4% (60) of the respondents stated that they did not agree with premarital sex. This was similar to the proportion of participants (27.4%) (60), who felt that if a couple was about to marry, it would be fine for them to engage in sexual intercourse. 24.1% (53) asserted that as long as two people were in a relationship it was alright for them to be sexually involved, whilst 21.2% (47) said if two people like each other it was reason enough for them to be sexually intimate. In contrary to this, Farahani & Cleland (2015) study has pointed out that premarital sex is unacceptable and socially prohibited.

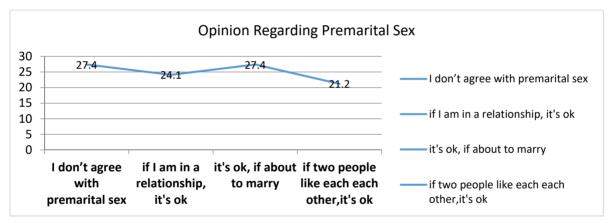


Figure 11. Opinion regarding premarital sex

5.3.3 Likelihood of Future Contraceptive Use (N = 220)

Participants were asked whether they would consider using contraceptions in future. Most of the respondents (91.7%) (202) specified that they would, but 8.3% (18) indicated that they would not. Figure 12 below shows this information.

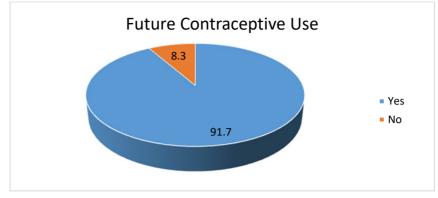


Figure 12. Choice regarding future contraceptive use

5.4 Participants' Practices With Regards to Sex and Contraceptives

5.4.1 Engagement in Sexual Intercourse (N=220)

The respondents were asked if they had ever engaged in sexual intercourse. The greater number (70.5%) (155) had been sexually active in the last six months, whilst 22.7% (50) had been sexually active more than half a year before. Minority (6.8%) (15), had never engaged in sexual intercourse. From the responses given, it is clear that the majority of female students had engaged in sexual activities in recent months. Figure 13 below shows how many participants' have engaged in sexual intercourse.

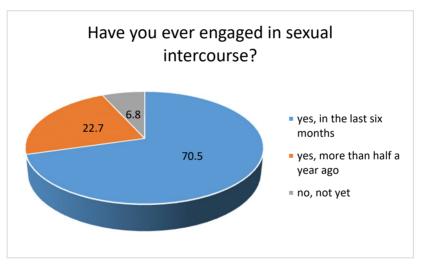


Figure 13. Participation in sexual intercourse

5.4.2 Frequency of Contraceptive Use (N=208)

The sexually active respondents were asked how often they used contraceptives. They had four options to choose from; always, often, occasionally, and never. Of the total, 44.3% (92) stated that they always use contraceptives, followed by 28.1% (58) who mentioned that they occasionally made use of contraceptives. 20.0% (42) said they often used contraceptives, whilst 7.6% (16) admitted that they had never used family planning. Students who have never used family planning talk volume in relation to the number of pregnancy cases recorded on campus per year. These findings are illustrated in Figure 14 below.

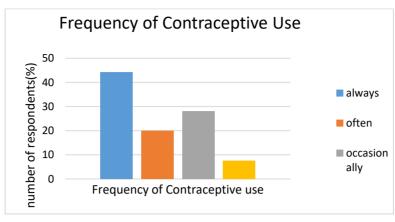


Figure 14. Frequency of contraceptive use

5.5 Validity and Reliability

The questionnaire was administered in a language understood by both respondents and the researchers. Data quality checks were done in the field as well as before and after data processing to ensure completeness and consistency. To address reliability in this study, the same questionnaire was used to collect data from all the participants. Data collection was done by the researchers only. In order to ensure reliability, a pilot study (inter-rater reliability) was undertaken in this study to determine the accuracy and consistency of the research instrument. The instrument was also checked by a supervisor who is an expert in quantitative research.

6. Discussion

6.1 Knowledge and Source of Information on Contraception

Respondents in this study demonstrated overall poor knowledge of contraceptives for their level of education. However, the figures demonstrate that the participants had better knowledge about short term methods than long term methods. Majority of respondents (69.6%) (153) were accustomed to the male condom, whilst the least known were intra-uterine devices (7.7%) 17 and norplant (3.6%) 8. This is in line with a study conducted by (Renjhen, Kumar, Pattanshetty, Sagir, Minoli, & Samarasinghe, 2010). Results of the study showed that 85% of the respondents knew about condoms whilst 40% knew of contraceptive pills. However, knowledge of long-term methods and intra-uterine devices was poor, averaging 12% (Renjhan et al, 2010). In this study, 24.5% 54 claimed to have attained information through the television and radio. These findings are similar to a study done in South Africa, which reported major sources of information as family as well as the media, (Ramathuba, Khoza, & Netshikweta, 2012).

6. 2 Attitude towards Contraceptives

Participants were asked whether they would consider using contraceptives in future. Most of the respondents (91.7%) (202) specified that they would, showing that majority of the participants had a positive attitude towards contraceptives. However, 8.3% (18) indicated that they would not consider contraceptive use even in the future. This generally indicates a positive attitude with regards to contraception. These results concur with a similar study done by Renjhan et al. (2010) in which 78% of students wanted to adopt family planning in the future (Renjhan et al., 2010). Majority of respondents, 69.1% (152), in this study identified irregular menstruation as a possible side effect of the use of contraceptives. Some pointed out weight gain as another popular side effect reported by 58.6% (129) of the respondents. Accordingly, 41.8% (92) of the respondents were aware that contraception causes reduced fertility. These are factors that affect attitude towards contraception which were similar to a study by Ramathuba et al. (2012 which similarly found that some participants were worried they might gain weight or they may fail to conceive in future (Ramathuba et al., 2012).

6.3 Practices With Regards to Family Planning

In this study, 28.1% (58) of participants mentioned that they occasionally made use of contraceptives. This is similar to the findings of Idowu, Aremu, Fehintola, & Popoola, (2017) in Nigeria, who found that, 64% of the sexually active participants had used family planning at some stage, but only 37.5% were currently making use of contraception (Idowu et al, 2017). In the current study, the greater number of participants (60%) (125) professed that they use the male or female condom. This finding is in line with a study conducted in Nigeria by Idowu et al. (2017) which found that the condom was the most commonly used family planning method, having been utilized

by 65.2% of the sexually active respondents. The study findings further revealed that 94.5% (208) of the respondents had engaged in sexual intercourse within the year. Sexual activity among young females contributes to high unintended pregnancies. In this study, 17.8% (37) of the participants had their first sexual encounter between the ages of 13 to 16 years old, whereas 60.1% (125), first engaged in sexual activity between the ages of 16 to 20 and 22.1% (46) had their first sexual experience between the ages of 20 to 25 years old. Similar levels of sexual activity were revealed by Nsubuga, Sekandi, Sempeera, & Makumbi, (2016). In a study conducted in Uganda in 2016. In that study, nearly 70% of the students had been sexually active in the past 12 months. Their findings were further in line with results from the Uganda demographic health survey showing that premarital sex is common, with at least one in five young females aged 15–24 being sexually active, (Nsubuga et al., 2016)

Of the sexually active students, only 60% (125) had ever used the condom; male or female. This suggests that 40% (83) of the respondents engage in unsafe sex and are therefore at higher risk of unintended pregnancies and sexually transmitted infections that include HIV. These findings are similar to the findings of Nsubuga et al. (2016) study found that one in five of the participants were engaging in unsafe sex. Religion did not seem to affect contraceptive use in this study as anticipated. Of the 81 Roman Catholic respondents, 85.2% (69) admitted to have utilized contraception at some point in time. This is contrary to the Catholic teachings which oppose the use of the family planning. However, a study by Nsabagu et al. (2016) found that there was an overlap between religious beliefs and contraceptive use as evidenced by lower use of contraceptives by evangelicals or Seventh Day Adventist in line with the religious teachings (Nsabagu et al., 2016).

7. Conclusion

High rate of pregnancy, STIs, HIV and AIDS are all possible consequences of ill-informed youth recklessly engaging in sexual intercourse. Reproductive health services should be available, affordable, accessible and friendly. Students must be educated about sex, its consequences, as well as on availability of contraceptives, so that they can make mature and responsible decisions. Based on the findings of the study, one can conclude that the female Education students at UNAM Rundu campus have poor knowledge, and practices with regards to contraceptions. However they seem to have a positive attitude towards family planning which must be taken advantage of through sex education to encourage safe and responsible sexual practices. This calls for aggressive awareness campaigns to raise the level of knowledge of students on family planning. In today's world, youth are so caught up on social media and this platform can be exploited for dissemination of information on sex and family planning.

7.1 Recommendations

Based on the study findings, the following recommendations are made:

- Information on human sexuality, conception and contraception should be made available to university students, in their first year of their studies to eliminate any misconceptions they may have about contraceptives earlier in their studies. Students (both male and female) must be educated about sex and family planning.
- It was also noted that the female students at UNAM Rundu campus have poor practices as concerns family planning. This could be because of their busy schedules and the inaccessibility of health facilities. It is therefore essential that the university management contemplate establishing a mobile clinic on the campus to take care of the students' contraceptive needs.
- To encourage healthy practices with regards to contraceptive use, contraceptives must be made available at the campus. Condoms can be provided on campus, for example in the toilets, where students can easily get some. It is crucial that the university authorities organise that condoms be made available on campus.
- Sexuality was noted to be a very sensitive subject; therefore students may be more comfortable to interact if the education is provided by their peers. University of Namibia School of Nursing can organize peer education programs to promote safe sex. Nursing students who have covered the family planning module in their studies can offer peer education to students in other faculties.
- The Ministry of Health and Social Services may also arrange that nursing staff visit the University of Namibia Rundu Campus to take care of the students' reproductive needs on a monthly outreach program, to encourage contraceptive use, by making it available.

7.2 Study Delimitations and Limitations

The study was delimited to the knowledge, attitude, and practices of female Education students studying at the University of Namibia, Rundu Campus with regards to contraception. The subject on contraception is very

sensitive in an African context; therefore, although the respondents were anonymous, there might have been information bias because some students were hesitant to report on sensitive information regarding the issue. To minimize this type of bias, confidentiality was emphasized and ensured. Application of the findings of this study is limited to populations with similar characteristics, that is, female university students and may therefore not reflect the views of their male counterparts. Concerning the research instrument, the questionnaire contained closed and open-ended questions. By implication, this meant limited response options by respondents.

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Competing Interests Statement

No potential conflicts were reported by authors.

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