

FACTORS ASSOCIATED WITH CHOICE OF CONTRACEPTIVE METHODS AMONG STUDENTS AT SOKOINE UNIVERSITY OF AGRICULTURE, MOROGORO

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Abstract: The use of contraceptives among students is influenced by various socio-economic factors, including age, awareness, and income, the cost of contraceptives, partner contributions, and access to contraceptives on the student's campus. This study evaluated the impact of these factors on contraceptive use and identified the most commonly used contraceptives among students at Sokoine University in Morogoro.

The study employed a cross-sectional design and was conducted from May to June 2024 among 384 undergraduate students from the Edward Moringe and Solomon Mahlangu campuses. Participants were selected through random sampling, and data was collected using a pre-tested structured questionnaire that included both open and closed-ended questions. The data were analyzed using descriptive statistics and logistic regression.

The factors influencing contraceptive utilization were assessed using logistic regression analysis. A P-value of less than 0.05 was considered statistically significant. This study showed that the partner's contribution ($P < 0.04$), religion ($P < 0.05$), contraceptive use with partner approval ($P < 0.03$), and contraceptive costs ($P < 0.03$) are significant predictors of the utilization of modern family planning methods among students at Sokoine University of Agriculture.

The common method used more by male (72%) students than females (28%) followed by hormonal pills which is more common in females (76%) than in male (24%) students.

The findings of this study suggest that socio-economic factors play an important role in influencing students' decisions about using contraceptives. Interventions that target these factors, such as providing educational programs and increasing access to modern family planning methods, could help improve contraceptive utilization among students and reduce unintended pregnancies.

Keywords: *Contraceptive methods, Side effects and impacts, Fertility awareness, Family planning, Morogoro.*

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1. INTRODUCTION

1.1 BACKGROUND

Family planning is the information, means, and methods that allow individuals to decide if and when to have children. Family planning provides information about how to become pregnant when it is desirable as well as treatment for fertility (United Nations, Department of Economic and Social Affairs, Population Division, 2019). Family planning enables individuals and couples to determine the number of children they would like to have through the spacing and timing of their births (National Family Planning Guidelines and Standards, 2013). These methods are contraceptives including pills, implants, intrauterine devices, surgical procedures that limit fertility to both female and male partners, barrier methods such as condoms as well as non-invasive methods such as periodic abstinence, withdrawal, and calendar (WHO *et al.*, 2018)

Family planning methods are information, means, methods, and technologies that are further developed on deciding if and when to have children, (Conley *et al.*, 2004). These methods include female and male sterilization, the pill, intrauterine device, injectables, implants, male and female condoms, the diaphragm, vaginal methods (spermicides, foams, and jellies), emergency contraception, the lactational amenorrhea method (LAM), and the standard days' methods so popularly known as the "beads" (United Nations Department of Economic and Social Affairs, Population Division, 2020)

Globally, women are having fewer babies but fertility rates remain high in some parts of the world; 3.2 million live births were recorded in 1990 to 2.5 million live births recorded in 2019, 49% of women in their reproductive age (15 - 49 years) use some form of contraception, thus the fertility level is expected to decline (United Nations Department of Economic and Social Affairs, Population Division, 2020)

In Tanzania mainland, the modern family planning services were initiated by a non-governmental organization, the Family planning association of Tanzania popularly known as UMATI in 1954, in 1974, the government started providing the services by integrating them with existing maternal and child health services (Kessy and Rwabudungo, 2006).

1.2 PROBLEM STATEMENT AND STUDY JUSTIFICATION

Some Family planning methods have the short time and long-term time-acting reversible side effects to the users such as Pelvic Inflammatory Disease, secondary amenorrhea, mood swings complications due to misuse/improper use. (WHO, 2021). 57.9% of women who reported having been using pills experienced irregularity of the luteal phase and menstrual cycles, this is alerting us to the extent of what is happening to the younger generation (Red Rock infertility, 2021)

The most concern on these methods is the tendency of many women at reproductive age, especially naive youth, most students have no correct information or no clue at all of the proper use of modern family planning methods thus misuse or overuse the contraceptive (Verma *et al.*, 2020).

This study can provide evidence-based recommendations to improve contraceptive services and enhance outcomes among SUA students Understanding the utilization of contraceptives plays

a crucial role in developing and implementing targeted interventions and educational programs among students (Mekonnen and Worku, 2018)

This study addresses the research gap and understanding of how socio-economic disparities affect reproductive outcomes and provides valuable insights into the contraceptive context of the university. (Mekonnen and Worku, 2018)

1.4 STUDY RATIONALE

The study provides the gain of insights into the utilization of contraceptives and contributes towards improving overall reproductive health outcomes and reducing unintended pregnancies among students which is enhanced by the understanding of the factors influencing family planning decisions among students of Sokoine University of Agriculture.

1.5 OBJECTIVES

1.5.1 GENERAL OBJECTIVE

- i. To assess the understanding and utilization of contraceptive methods among students at Sokoine University of Agriculture, Morogoro.

1.5.2 SPECIFIC OBJECTIVE

- i. To find out the common contraceptives used by Students at Sokoine University of Agriculture, Morogoro
- ii. To evaluate socio-economic factors and impacts in utilization of the contraceptives among students at Sokoine University of Agriculture, Morogoro.
- iii. To assess the knowledge and awareness of the use of contraceptives among students at Sokoine University of Agriculture, Morogoro

2.0 LITERATURE REVIEW

2.1 THE CONCEPT AND GLOBAL OVERVIEW OF THE FAMILY PLANNING METHODS

The available family planning methods are subdivided into two major categories, the reversible methods and irreversible methods (Jones *et al.*, 2022). Reversible methods involve those procedures and processes that when implied, later in life an individual can revive and be able to conceive a child or impregnate the significant other, Examples of such methods include, hormonal contraceptive methods which provide oral contraceptive pills, injectable, and contraceptive implants, the barrier methods include spermicides, and females and males condoms, fertility awareness methods these methods involve using the menstrual cycle beads, and Lactational Amenorrhea Method (LAM) which involves contraception by constant and adequate breastfeeding for consecutive six months after delivery and most of these methods are relying on women (United Nations, Department of Economic and Social Affairs, Population Division, 2019)

The irreversible methods of family planning involve and include all processes and procedures that render an individual's permanent infertility, such methods include female and male sterilization methods which involve simple surgical procedures for both men and women who are certain they do not need more children. (WHO, 2018)

The prevalence of use of contraceptives is higher about 75% in developed countries with access wide variety of

contraceptives, compared to 58% of access to available contraceptives in developing countries, the choice of prior contraceptives among a variety of contraceptive offerings is yet to be attained in many countries (Bongaarts *et al.*, 2021).

2.2 CONTRACEPTIVE POLICIES AND FRAMEWORKS IN DEVELOPED AND DEVELOPING COUNTRIES UTILIZATION.

In South Africa, teens experience a birth rate of 54 per 1000 teen women aged 15 – 19 years, this twice several teen pregnancies in the United States, with a revised contraception policy resulting in two documents, national contraception and fertility planning policy and service delivery and Complementary National Contraception Clinical Guidelines which were launched in 2014 (Hoopes *et al.*, 2015).

These policies align with World Health Organization recommendations aimed at ensuring human rights in the provision of contraceptive information and services (WHO, 2014). Due to early involvement in sexual activities by South African teens, due to peer pressure, poverty, and misinformation about family planning the policy targets most teens (Hoopes *et al.*, 2015)

In Developing countries, the proportion of married women using a method of contraception increased from 10% in the 1970s to 60% in the 1990s, though there is a slight gap between literate and illiterate women in utilizing the available contraceptives (Fotso *et al.*, 2013). In Paraguay, with a population of about 6.5 million as of 2017 data, 20% of them are adolescents aged 15-19 years old. There is a decline in childbirths by 37% compared to other South American Countries. Despite the policies Paraguay has a substantial level of adolescent fertility with 12% of pregnant adolescent teens with 45.5% of pregnant women aged 20-22 years old having at least one child (Cordova-Pozo *et al.*, 2017)

2.3 CONTRACEPTIVES USE IN TANZANIA

Family planning methods in Tanzania have been widely spread and in use for decades, according to the Population Reference Bureau, 24% or nearly a quarter of the pregnancies among women aged 15 and 24 years in Tanzania are unplanned inclusively to both married and unmarried women. Most of these unwanted pregnancies are due to lack of contraceptive use, rape, lack of adequate knowledge on proper and effective use of contraceptives, and misuse or improper use of the contraceptives (Mushy *et al.*, 2020). More than 90% of men worldwide are reported to know about family planning despite the success Tanzania is one among the countries whose men have low acceptance and gap difference in knowledge of the use of contraceptives, this is associated with improved use of these contraceptives (Msovela and Tengia-Kessy, 2016).

Utilization of the family planning methods is unwavering among youth, particularly students, such that neglect and lack of awareness of the prior method of choice hinder so much its adequate utilization, hence resulting in either unwanted pregnancies or fatal adverse side effects (Verma *et al.*, 2020)

This study will serve as one of the baselines of information for further studies and public health programs that advocate the issue of modern family planning methods to youth, so known as contraceptives utilization to the important primary level of planning on extension of family or having babies

3.0 MATERIAL AND METHODS

3.1 STUDY AREA DESCRIPTION

The study was conducted at two campuses of Sokoine University of Agriculture, Morogoro. The Edward Moringe campus, located in Magadu Ward, is situated 3.0 km from the center of Morogoro Municipality and about 200 km west of Dar—es—Salaam. The Solomon Mahlangu campus, located in the Mazimbu Area, is located about 10 km North of the SUA main campus, 4 km off Dar—es—Salaam-Tunduma (Zambia) Highway.

The Sokoine University of Agriculture is amassed many students from several places with different backgrounds, ethnicities, and experiences and most of the students experience the peer pressure of the slight change in the environment increasing the curiosity of trying out “trends” and trying to fit in groups of the other significance fellows with new experiences, This makes these students to be part of the pattern of many women who improperly use the modern family planning methods knowingly or unknowingly to avoid unwanted pregnancies.

3.2 STUDY DESIGN

The study was a cross-sectional study. A cross-sectional study is an analytical type of study where the measurements of effects and exposures are made at the same time. This study was cross-sectional because data was collected at a single point in time assessing the utilization, how socio-economic factors influence the utilization of the modern family planning methods, and the common methods of modern family planning utilized by the students (Creswell, 2017)

3.3 SAMPLING TECHNIQUE

Simple random sampling selection of the participants was done, whereas each study participant has an equal chance of being selected in the sample from the available sample frame, characterized by unbiasedness and fairness of participant selection (Acharya *et al.*, 2013).

3.4 TARGET POPULATION

The male and female participants of this study were drawn from undergraduate students in accordance to reproductive age (18 - 45 years of age for males) and (ranging from 18 – 40 years of age for females), this range of reproductive age was used because the respective age range attitudes and concerns about conceiving and repercussions of unplanned conceptions arise, this was from both campuses of Sokoine University of Agriculture in Morogoro (Lundberg *et al.*, 2013).

3.5 SAMPLE SIZE

A total of 384 students from SUA, Morogoro participated in the study, with an equal proportion of participants (with regards to the number of courses which reflects the number of students in the prior campus), such that 45% which is 171 students from Edward Moringe campus participated and 55% which is 213 students from Solomon Mahlangu campus participated (Smith *et al.*, 2022)

$$n = Z^2 P (1 - P) / d^2$$

Whereas

n is the sample size

Z is the statistic corresponding level of confidence of 95%

d is the precision (if the precision is 5% then d is 0.05)

P is the expected Prevalence

Irrespectively the proportion of students, from both campuses with regards to the number of courses

3.6 DATA COLLECTION

Data was collected using a structured questionnaire with either both (open-ended questionnaire and closed-ended questionnaire) or open-ended questionnaire. With a stand to ethical grounds, data was collected from students on both campuses of Sokoine University of Agriculture in Morogoro (Appendix 1)

4.0 ETHICAL DECLARATION

The study received ethical approval from the Sokoine University of Agriculture research committee and the College of Veterinary Medicine and Biomedical Sciences to conduct the study among students. The consent process involved appropriately and clearly explaining the purpose of the study, and the benefits of participating in the study, participants were allowed to withdraw from the study at any time or stage of the study.

5.0 RESULTS.

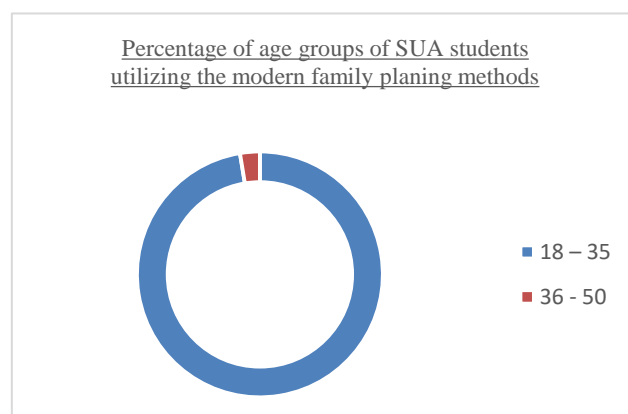
A total of 384 students from the Edward Moringe campus (44.5%) and Solomon Mahlangu campus (55.5%) with informed consent participated. Table 1 summarizes the demographic data of the respondents. Ages of the study participants were virtually distributed into three age groups such that (0.3%) were aged between 0 – 17 years, (97.1%) were aged between 18- 35 years of age and (2.6%) were between 36-50 years of age, whereas (34.9%) were females and (65.1%) were males, (0.5%) were divorced, (10.4%) were married and (89.1%) were single. About (71.4%) were Christians, (2.6%) were Muslims and there were no participants with other beliefs. (76.8%) were unemployed and (23.2%) were employed, (10.9%) from the first year of study students, (18.0%) from the second year of study students, (68.5%) from the third year of study students, (2.6%) from the fourth year of study students and none from the fifth year of study students. The study had (2.6%) of non-Tanzanian respondent's students and (97.4%) of Tanzanian student's respondents.

Table 1; Socio-demographic data of Sokoine University of Agriculture in Morogoro

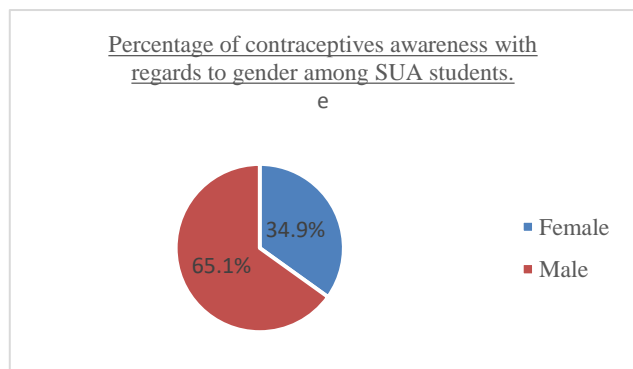
VARIABLES		PERCENTAGE (%)
Campus	Edward Moringe Campus	44.5
	Solomon Mahlangu Campus	55.5
Gender	Female	34.9
	Male	65.1
Marital status	Divorced	0.5
	Married	10.4
	Single	89.1
Age (years)	0 – 17	0
	18 – 35	97.4
	36 – 50	2.6
Religion	Christian	71.4
	Muslim	2.6
	Others	0
Nationality	Non-Tanzanian	2.6
	Tanzanian	97.4
Study year	1	10.9
	2	18
	3	68.5
	4	2.6
	5	0
Employment status	Unemployed	76.8
	Employed	23.2

The socio-economic factors influencing Students' use of contraception (Appendix 2)

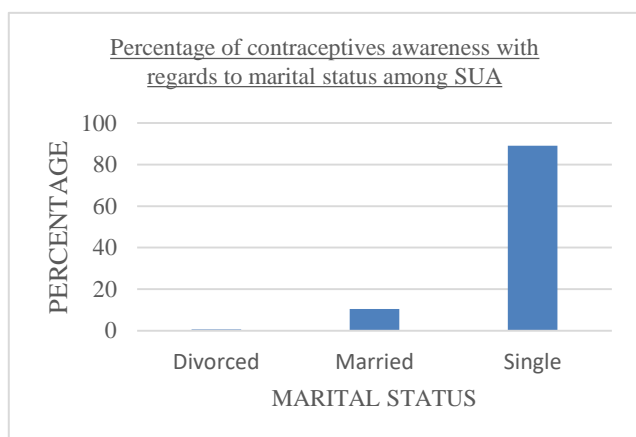
Age: At Sokoine University of Agriculture, the majority of students (97.1%) aged between 18 – 35 years are using contraceptives, followed by (2.6%) aged 36-50 years which is the minority group in terms of age that use contraceptives. This can be due to increased awareness among young students.



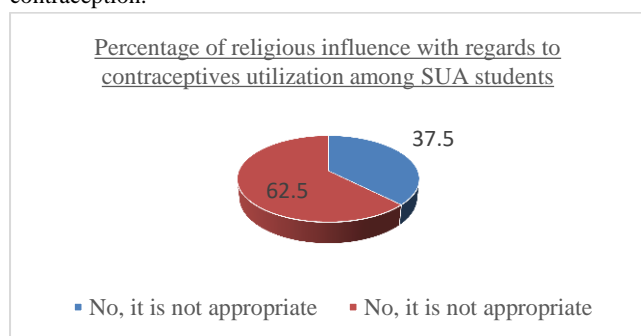
Gender: Awareness to contraceptives is higher in male students (65.1%) compared to the female students (34.9%) due to likelihood of male students having more access to contraceptives around campuses than female students.



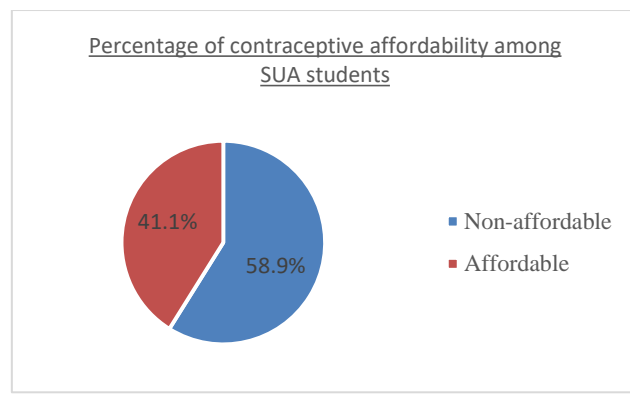
Marital status: About 89.1% of single students are aware of the contraceptives, compared to 10.4% married students and 0.5% of divorced students.



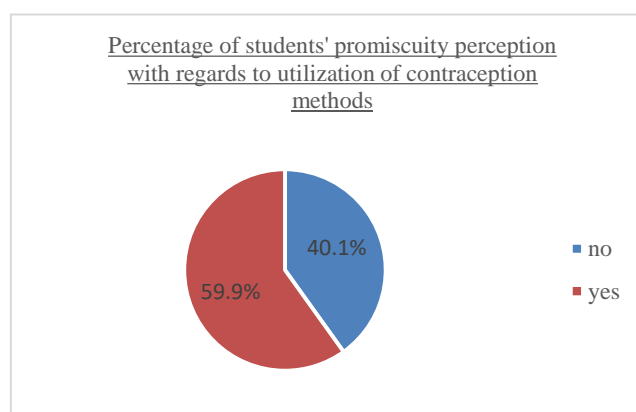
Religious influence: (37.5%) thought it was not appropriate for religious congregations to include contraceptive education in the teachings, and the majority of students (62.5%) perceived that religious influence is appropriate when it comes to using contraceptives, this suggests that religion plays an important role in the decision-making process of some students when it comes to contraception.



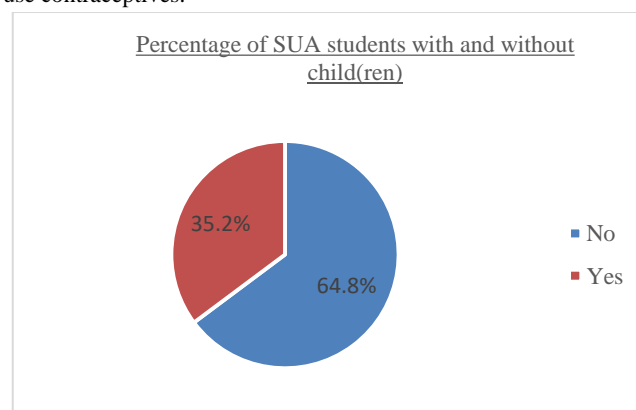
Contraceptive cost: The majority of students (58.9%) find the cost of contraceptives to be not affordable. This suggests that cost of contraceptives may be a barrier to contraceptive use for some students.



Student's promiscuity perspective on contraceptive uses, (40.1%) gave the view that the use of contraceptives makes the user promiscuous, the majority of students about (59.9%) perceived that the use of contraceptives does not make the user promiscuous and contraceptives should be used regardless of whether or not the student is promiscuous. This suggests that students are aware of the importance of using contraceptives, even if they are not sexually active.

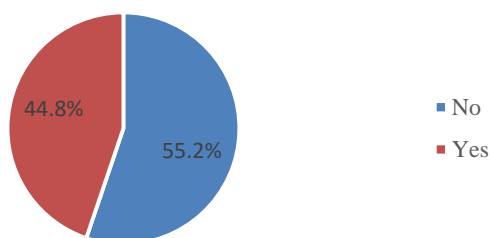


Having children, (35.2%) had children and the majority (64.8%) did not have children. This suggests that students are delaying parenthood, which may be the factor in their decision to use contraceptives.



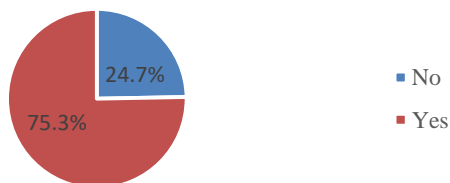
Contraceptives use before conception, (44.8%) used contraceptives before conception, and (55.2%) which is the majority did not use any contraceptive prior the conception, this suggests that some students may not be using contraceptives effectively.

Percentage of SUA students with children who used and not used contraceptives prior conception



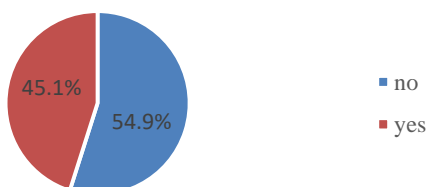
Partner's support in contraceptives use, (24.7%) report having no support of their partners in contraceptive's use and the majority of students (75.3%) report having their partner's support in their decision to use contraceptives, this suggest that the partner's support is an important factor in contraceptive use.

Percentage of partner's support with regards to contraceptives utilization among SUA students.



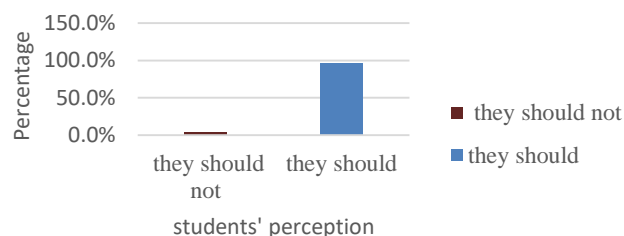
Continuous use of contraceptives with partner's disapproval, (45.1%) of students continue to use contraceptives regardless of the disapproval from their significant partner, this suggests that few students deliberately prioritize their reproductive health and the majority of students (54.9%) do not continue to use contraceptives if their partner disapproves. This suggests that students are not prioritizing their reproductive health if their partner does not agree with the use. This means that significant sexual partners have a massive contribution to the utilization of contraceptives by students.

Percentage of continuous use of contraceptives of SUA students with regards to their partner's disapproval.



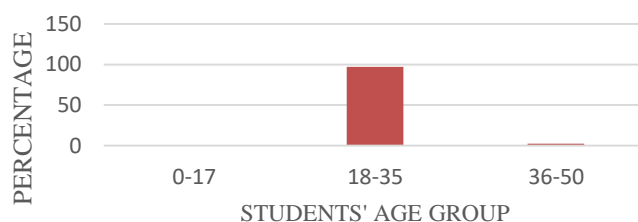
Perspective on couple's joint decision to use contraceptives, the vast majority of students (96.4%) believe that couples should make a joint decision about whether or not to use contraceptives. This suggests that students value communication and shared decision-making in their relationship which have a high influence on contraceptive use.

Percentage of SUA students' perception on couples' joint decision onto utilising modern family planning methods.



First-time awareness of contraceptives (age in years), About (47.9%) first became aware of contraceptives between the ages of 0 to 17 years old. This suggests that students are learning about contraceptives at a young age, which can impact their decision making when it comes to the use of the contraceptives.

Percentage of age groups of which SUA students had first time awareness of the contraceptives



Overall, the results suggest that several socio-economic factors may influence the utilization of contraceptives among students, religious influence, student perception of promiscuity, contraceptive cost, and partner's support are important to consider when developing policies and programs to promote contraceptive use among students.

THE TABLE SHOWS THE SOCIO-INFLUENCE FACTORS INFLUENCING THE STUDENTS AT SOKOINE UNIVERSITY OF AGRICULTURE, MOROGORO.

Independent variable	Coefficient	Standard error	t-statistic	p-value	p-value (< 0.05)	Odds ratio
age	0.03	0.1	0.3	0.07	NO	0.28
Campus	0.01	0.1	0.1	0.07	NO	0.56
Religion	1.02	0.1	10.2	0.05	YES	1.96
having children	0.45	0.1	4.5	0.05	YES	1.33
partner's support	1.03	0.1	10.3	0.04	YES	1.15
contraceptive use with partner's disapproval	0.5	0.1	5	0.03	YES	1.1
age of first awareness of contraceptives	0.05	0.2	0.25	0.06	NO	0.05
students' promiscuity perspective	0.4	0.1	4	0.02	YES	1.23
contraceptive cost	1.05	0.1	10.5	0.03	YES	1.93

From the table,

The coefficient for each individual independent variable is the measure of the strength of the relationship between the independent variable and the dependent variable, larger coefficient

indicate the stronger relationship between independent and dependent variables while smaller coefficient indicate weak relationship between independent and dependent variables, such that age has smaller coefficient of 0.03 indicating a weak relationship between the influence of age onto utilization of contraceptives methods among students of Sokoine University of Agriculture compared religion which has a coefficient of 1.02 indicating a strong influence of religion.

The t-statistic of each individual independent variable measure the significance of the coefficient for an independent variable, a coefficient is statistically significant with the large t-statistic value from the table, the independent variable, Religion has higher t-statistic value means it have high statistical significance of indicating the relationship between the independent variable and dependent variable.

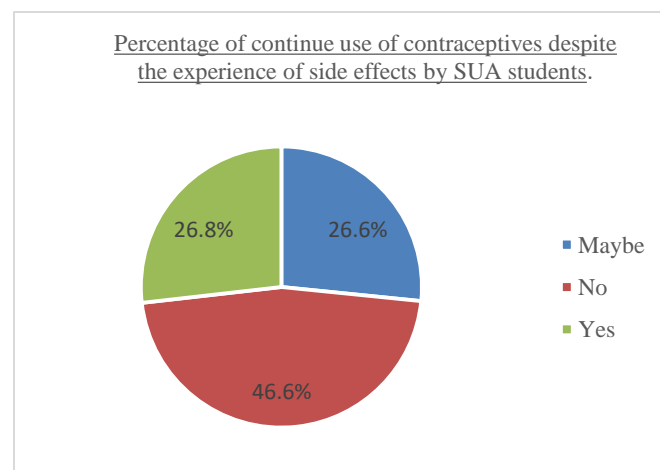
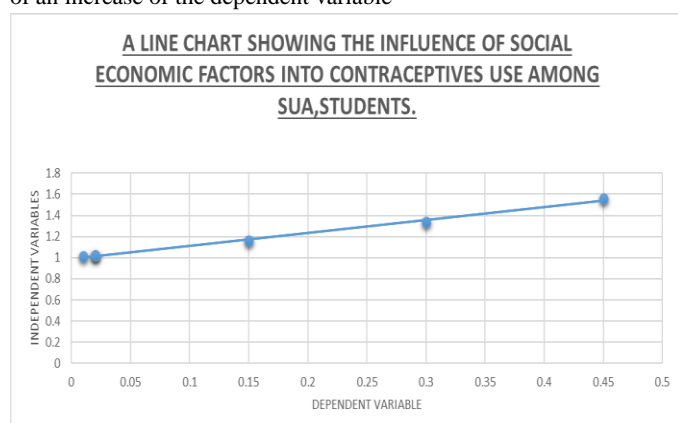
The odds ratio from the table indicates the measure of how much odds of the dependent variable occurring change for every one-unit increase in the independent variable, the odds ratio of less than 1 means the independent variable has no influence into an increase in dependent variable whilst the odds ration above 1 indicate that the independent variable has an influence in the odds of an increase of the dependent variable

The above line chart shows the linear relationship between the independent variables like religion, Partner's support onto contraceptives uses, students' promiscuity perspective and contraceptive costs against dependent variable, this means that the relationship between independent variables (socio-economic factors) and dependent variables, contraceptives is linear such that the likelihood of utilizing contraceptives increases with the likelihood of increases in the socio-economic factors.

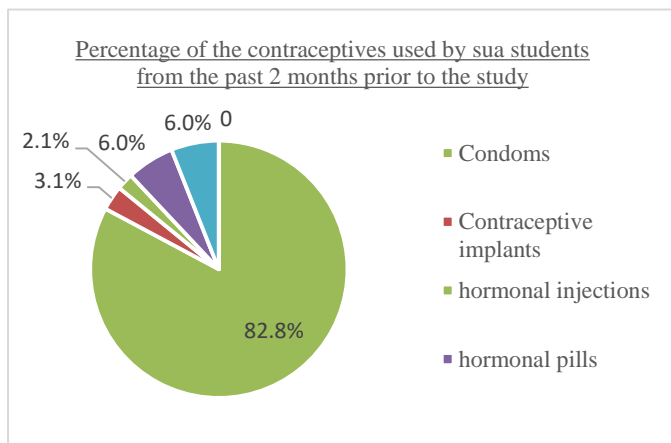
The common family planning method utilized by Sokoine University of Agriculture students is summarized in Table 3 below,

The knowledge on how many types of contraceptives, the majority of students know of 3 or more types of contraceptives. This suggests that students have a relatively good understanding of the different contraceptive options available to them.

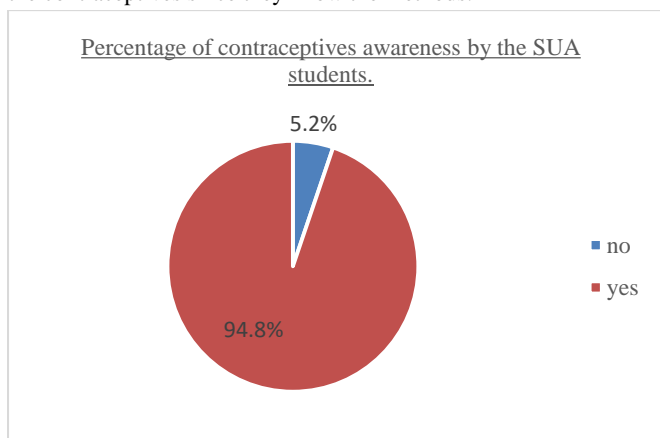
Continuous contraceptives use with side effects experience, the use of contraceptives is usually accompanied with various side effects such as spotting, headaches, nausea, rashes in groin area and unexplained weight gain, about half of students who use contraceptives (46.6%) reported to not use the contraceptives of preference if experience the adverse side effects. This means that despite the value of contraceptives, students have highly aware that they should not use the contraceptive even if it is the most available



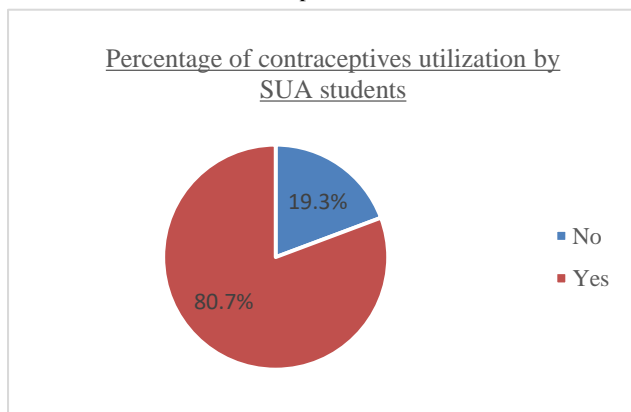
Contraceptives used by students from past 2 months, majority of students (82.8%) have used condoms more than other methods, such as contraceptive implants (3.1%), hormonal injection (2.1%), hormonal pills (6.0%), intrauterine devices (6.0%), and none had surgical procedures done for contraception. This suggest that condoms are the common method utilized by the students.



Contraceptive awareness, the vast majority of the students (94.8%) are aware of the contraceptives this means that students know about contraception and can have a preference of choice of the contraceptives since they know the methods.

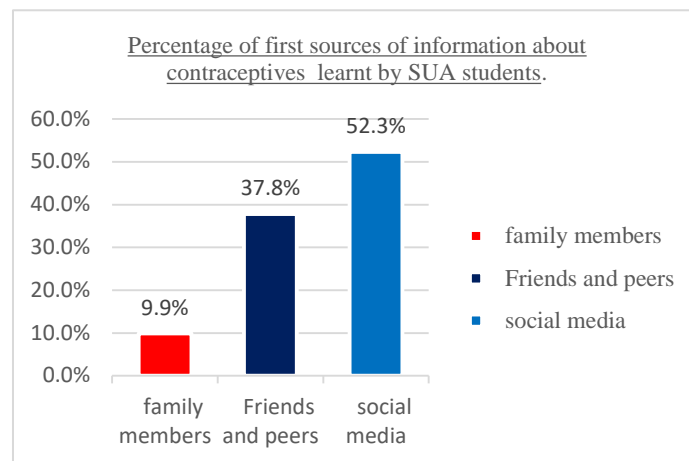


Contraceptives use, (80.7%) of students use contraceptives and (19.3%) do not use contraceptives, the majority being more than 70% agreed to the use of contraceptives, this suggests that students use a certain contraceptive method.



How first learn about contraceptives, The most common way for students to learn about friends or peers (37.8%). this is followed by personal research (10.2%) and through social media (42.2%) importantly 9.9% of students learned about contraceptives

from family members. This suggests that students are more likely to learn about contraceptives from their peers and online sources, rather than from their parents or guardians.

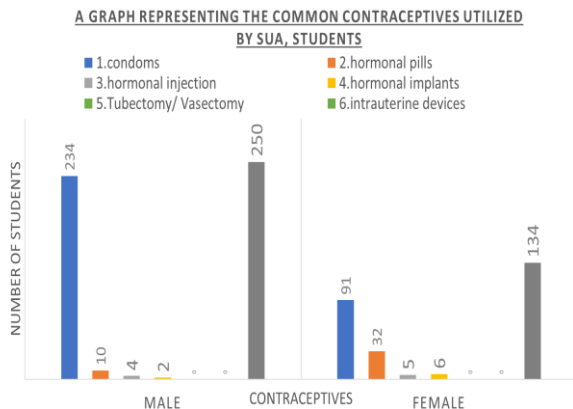
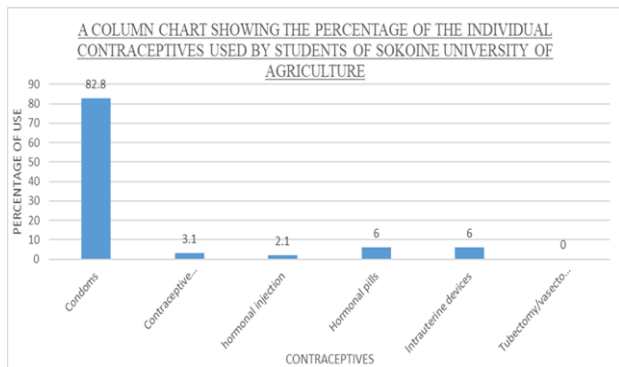


A TABLE SHOWING THE PERCENTAGE OF INDIVIDUAL CONTRACEPTIVES USE AMONG STUDENTS OF SOKOINE UNIVERSITY OF AGRICULTURE, MOROGORO FROM THE PAST TWO MONTHS FROM WHEN TO STUDY WAS CONDUCTED

CONTRACEPTIVES	FREQUENCY	PERCENTAGE
Condoms	318	82.8
Contraceptive implants	12	3.1
hormonal injections	8	2.1
hormonal pills	23	6
intrauterine devices	23	6
tubectomy / vasectomy	0	0
total	384	

THE TABLE SHOWING THE COMMON CONTRACEPTIVES USED BY SUA STUDENTS BY GENDER

Contraceptives	male	female	Total	Mean	Male (%)	Female (%)
Condoms	234	91	325	162.5	72	28
hormonal pills	10	32	42	21	24	76
hormonal injection	4	5	9	4.5	44	56
hormonal implants	2	6	8	4	25	75
Tubectomy/ Vasectomy	0	0	0	0	0	0
intrauterine devices	0	0	0	0	0	0
Total	250	134	384	192		



5.1 DISCUSSION

The influence of socio-economic factors in utilization of family planning methods (contraceptives)

The study sought to assess the influence of socio-economic factors on the utilization of family planning methods (contraceptives) among students of the Sokoine University of Agriculture in Morogoro. About 90%, which is the majority of the students had a knowledge of family planning methods and knew few of these methods, the few minorities were reported unaware of the family methods but had heard about the examples of the methods. The study suggests that regardless of the source of awareness of the contraceptives it is most likely students use any particular contraceptive method.

The results of this study suggest that socioeconomic factors exert a significant role in influencing contraceptive use among students such that there is a positive correlation between socioeconomic factors and contraceptive use, in essence, that the odds of utilizing contraceptives increase as the socio-economic factors increase.

The study found that students who believe that using contraceptives are more likely to use them, while those who believe that it is not appropriate are less likely to use them. Additionally, students who have had a child(ren) are more likely to use contraceptives than those who have not had children. This suggests that students who have experienced the challenges of unplanned pregnancies are more likely to be motivated to prevent future pregnancies.

According to the study, students are more likely to learn about contraceptives mostly through social media, friends and peers, personal research, and moderately from family members. This suggests that students are influenced by social networks when making decisions about contraception. Also, results show that students who experienced side effects from contraceptives are most likely to discontinue use, this indicates that students are concerned

about potential side effects and that these concerns can influence their decisions to use or not use contraceptives.

The study also found that the cost of contraceptives is a barrier to contraceptive use for some students, this suggests that making contraceptives more affordable could help increase their use among students. Also, some students are reluctant to use contraceptives because they believe, they make the user promiscuous. This suggests that there is importance in providing accurate information about the risks and benefits of contraceptives to assist students in making informed decisions about their use of them.

From the study, students who have partners who support their use of contraceptives are more likely to use contraceptives, thus partner's support can play a significant role in influencing students' decisions about contraceptive use, a partner can provide education and information about contraceptives in a way that it is more understandable and relatable, help in removing financial barrier to access contraceptives also a partner can provide emotional support and encouragement to use contraceptives.

Also, the majority of students believe that couples should jointly decide about the contraceptives to use and are more likely to use them because a youth having the perception of understanding the importance of the contribution of the significant person in their relationships suggests that the contribution of the partners have a significant role in their decisions to use contraceptives.

From the study, it is suggested that age and the campus to which the students belonged had no significant role in influencing students' decisions on contraceptive use.

Overall, the findings of the study suggest that several socio-economic factors influence contraceptive use among students but the most factors that influenced the student's use of the family planning methods were financial status, religious perception of contraceptives uses, promiscuity perception of contraceptives uses, and the perception of joint couples' decision to use contraceptives, contraceptives cost, and the contraceptives use prior conception (was done to respondents who had a child or children)

The common family planning methods(contraceptives) utilized by students at Sokoine University of Agriculture.

From the study, it was found that the majority of the participants used condoms from the past two months to when the study was conducted, followed by hormonal pills, hormonal injections, and contraceptive implants and none of the students had undergone contraception surgical procedures. These results suggest that the common contraceptives utilized by the Sokoine University of Agriculture are condoms and hormonal methods.

In sub-Saharan African countries, Tanzania being among these countries, gender stereotypes have been a backbone of determining the role of each gender in the planning of the family. The use and choice of contraception is mostly based on the belief of who (between men and women) has the most responsibility to prevent pregnancy such that despite the effect of the joint decision to use contraceptives, females (women) have the most likelihood of deciding which contraceptives are to be used to prevent pregnancy more than their male(men) partners (Heisler *et al.*, 2022)

From the study, based on gender, the majority of male students 72% prefer the use of condoms for contraception with a minority 28% of female students preferring using condoms, mostly due to its accessibility around the University campuses. To males,

condoms are more preferred than in females because it provides both protection against Sexually Transmitted Infections and contraception against pregnancy (Mutua and Ezech, 2020)

Hormonal methods such as hormonal pills 76%, hormonal injections 56%, and hormonal implants 75% are commonly utilized by female students more than male students because of their convenience of use, high effectivity at preventing pregnancy with a failure rate of only 1%. Also, female students utilize these hormonal methods because they give women more control of their fertility, such that a woman can choose when to start and stop using these hormonal methods (Musila *et al.*, 2022)

6.0 CONCLUSION

Overall, the utilization of contraceptives among the Sokoine University of Agriculture students is an important issue that needs a deliberate address, by understanding the factors that significantly influence the use of contraception methods, intervention reproductive health programs can be developed to emphasize the safe use of contraception among students. Taking necessary steps and concerns in reproductive health education can help to protect the student's sexual and reproductive health.

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6.1 RECOMMENDATIONS

There should be an Improvement of accessibility to affordable contraceptives around university campuses.

The university should offer comprehensive reproductive health education programs about contraceptives around the University which will be attained by conducting regular surveys to assess student's knowledge and attitudes about contraception among students.

There should be the development of educational intervention programs by incorporating family planning lessons into academic programs by the University to promote contraceptive use.

The university should collaborate with local community organizations to provide additional resources and support for students.

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