FACTORS CONTRIBUTING TO LOW UPTAKE OF POSTPARTUM INTRA UTERINE DEVICE IN YOUTH AGED 18-35 YEARS A CROSS-SECTIONAL STUDY AT MUKONO GENERAL HOSPITAL, MUKONO DISTRICT.

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ABSTRACT.

Background:

Postpartum IUD can control 98% of unwanted pregnancies and abortions worldwide, but many postpartum mothers have not utilized it which leads to maternal mortality and morbidity. The purpose of the study was to determine the factors contributing to the low uptake of PPIUD in youth aged 18-35 years at Mukono General Hospital, Mukono district.

Methodology:

This study used a cross-sectional design and employed a quantitative approach to data collection. The study was carried out at Mukono General Hospital, Mukono district. The study population comprised of postpartum mothers aged 18-35 years. The sample size of 30 postpartum mothers who participated in this study was sampled using a simple random sampling procedure. A self-administered questionnaire was used for data collection and analysis using the SPSS program.

Results:

The study established that the individual-related factors included misconceptions (70%), and poor attitudes toward IUD utilization (57%). Furthermore, socio-economic-related factors included the wide utilization of herbal medicine in communities (63%). Finally, the health facility-related factors included the negative attitude of health workers (60%) and long waiting hours for services (60%).

Conclusion:

It was found that most postpartum mothers didn't take PPIUD due to; misconceptions, poor attitude, utilization of herbal medicine, negative attitude of health workers, and long waiting hours for services.

Recommendation:

To increase the awareness of IUD utilization benefits among postpartum mothers.

Keywords: Postpartum, Intrauterine Device, Mukono General Hospital, Mukono District. Submitted: 2024-04-18 Accepted: 2024-04-20

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BACKGROUND OF THE STUDY.

Postpartum intrauterine contraceptive devices are a provision of IUCD during the puerperium period, or they can be inserted within 2 days (morning of the first postpartum day before discharge to home) after vaginal delivery, called early postpartum intrauterine contraceptive device (WHO, 2020). PPIUCD also can be provided intracesarean after expulsions of the placenta before uterine closure (WHO, 2020).

According to Assefaw, M 2021, the immediate postpartum period provides an opportunity for women to initiate effective long-acting contraceptive methods because they are motivated to prevent early subsequent conceptions and have access to health care and this is the ideal time to be certain that the women are not

pregnant (WHO, 2019). Assefaw, M 2021) asserts that the insertion of IUCD during the postpartum period does not affect breast milk, has a lower rate of uterine perforation, does not have other major side effects, and is time-saving and cost-effective, because it can be inserted within few minutes and provided in the same setting with delivery service, and it also reduces crowding of outpatient family planning unit (Assefaw, M 2021).

Globally, 14.3% of post-partum mothers use intrauterine contraception (IUC), but the distribution of IUC users is strikingly not uniform (WHO, 2020). In developing countries, the percentage of post-partum women using IUC is <2%, whereas in developed countries, it is >40%. The reasons for this large variation are not well documented (WHO, 2020).

In Africa, the pooled prevalence of IUD utilization among post-partum mothers was 6.36%, with the highest IUD contraceptive utilization in the Southern Region of Africa (12.43%) and the low modern contraceptive utilization in Central Regions of Africa (9.46%) (USAID,2019).

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In Sub-Saharan Africa, there was a low pooled prevalence (9.8%) of the use of IUD utilization among post-partum mothers across the 37 countries (USAID, 2019).

In East Africa, 22% of the women of reproductive age who utilize IUDs are post-partum mothers (USAID, 2019).

In Uganda, 15.6% of the women of reproductive age who utilize IUDs were sighted to be post-partum mothers (UDHS, 2016).

The unmet needs for family planning also can be reduced by providing it immediately after childbirth without a need for repeated visiting the healthcare system and is very convenient for women who will be unable to return for contraception purposes (Gonie, 2018). Despite this advantage, uptake of a postpartum intrauterine contraceptive device during early and immediate postpartum periods is low (Gonie, 2018). Frequent exposure to formal health counseling classes and prior discussions with their husband and entire family members could improve the knowledge and the likelihood of acceptance of PPIUCD (Pearson, 2020). Lack of provision for PPIUCD can contribute to the occurrence of unintended pregnancies because most of the women do not return for postnatal services (Valliappan, 2019). The early initiation and provision of the postpartum family planning method (PPIUCD) during the immediate postpartum period protect women from unintended pregnancy as the majority of women either resume early sexual activity or have an early return to fertility (Valliappan, 2019).

It was upon this background that I was set to determine factors contributing to the low uptake of postpartum intrauterine devices in youth aged 18-35 years at Mukono General Hospital, Mukono district.

Specific objectives.

- To assess the individual factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35 years at Mukono General Hospital, Mukono district.
- To establish the socio-economic factors contributing to low uptake of postpartum intrauterine devices in youth aged 18-35 years at Mukono General Hospital, Mukono district.
- To identify the health facility factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35 years at Mukono General Hospital, Mukono district.

METHODOLOGY.

Study design and rationale.

centered on a cross-sectional The study was design which involved a quantitative research approach. Data was collected from various respondents, and effective collection used its а triangular approach hence the design was the most appropriate. Moreover, the design enabled the collection of all the data necessitated at one point in time, to be completed within a limited amount of time available for doing it.

Study setting and rationale.

The study was conducted at Mukono General Hospital which is a government-owned Health facility under the management of the Ministry of Health (MoH). The Health facility is located in Mukono City, Mukono district, Uganda. It offers both curative and preventive services like Out-patient, In-patient, Maternal and Child health care

Study Population and Rationale.

The study included post-partum mothers who are youth aged 18 - 35 years attending Mukono General Hospital in Mukono District and receiving treatment from there. The target population was considered because the subject content under investigation directly applied to them.

Sample Size Determination.

The sample size of post-partum mothers who are youth aged 18 - 35 years attending Mukono General Hospital in Mukono District who participated in this study is determined by the statistical formula by Keish and Leslie (1965)

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

Where n was the sample size

Z was the standard normal deviation at a 95% confidence level (i.e. 1.96)

P was the proportion of the target population (which is 50% or 0.5)

waste acceptable degree of error (in this case 5% or 0.05) $n=(1.96)^2 \times 0.5 \times 0.5/0.05^2 = 384.16$ = 384

Since the total population of respondents involved is less than 10,000 (33), the following formulae are applied. n/1+n/N

Sample size estimation (*nf*) is calculated as follows;

nf = the desired sample size (when the population is less than 10,000)

n = the desired sample size (when the population is more than 10,000)

N = the estimate of the population size

nf = n

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N = 33 (post-partum mothers who are youth aged 18 – 35 years attending Mukono General Hospital in Mukono District)

384

1 + 384

33

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$$nf = n =$$

$$\frac{nf}{1+n} =$$

$$N$$

$$= \frac{384}{13}$$
$$= 29.5$$

Therefore, the sample size was30 respondents

Sampling Procedure.

A simple random type of sampling procedure was used to select the respondents for the study. Selected post-partum mothers according to the PNC lists were chosen at random and at least all participants were given a chance to participate in the study.

 ≈ 30

Inclusion Criteria.

The study included post-partum mothers who are youth aged 18 - 35 years attending Mukono General Hospital in Mukono District and who had voluntarily consented to participate in the study.

Definition of variables.

The dependent variable was the low uptake of postpartum intrauterine devices.

Independent variables were individual factors, socioeconomic factors, and health facility factors.

Research Instruments.

Data was collected using a structured questionnaire which will consist of closed-ended questions. The questionnaires had questions with options where the respondents chose what best suited them. The instrument was pretested from Kisenyi Health Center IV among 10 post-partum mothers. The questionnaire was used because it enabled the respondents to respond efficiently to the questions that were asked.

Data Collection Procedure.

After the approval of the research proposal by the supervisor, an introduction letter was obtained from St. Francis School of Health Sciences and was presented to the research committee chairperson at Mukono General Hospital seeking permission to carry out the study among youth aged 18-35 years in Puerperium. After securing permission from the in-charge PNC. I sampled out 10 respondents per day and distributed the questionnaires to individual respondents for filling. The same procedure was done for 3 days until a sample size of 30 respondents was done.

Data management.

The filled questionnaires were collected, checked for completeness, and counted after every data collection day to ensure that they were all returned, coded, and kept in a safe place as a backup. A flash disk was also used to store data.

Data analysis and presentation.

Data was sorted, coded, and entered into Epi-data and then exported to SPSS program version 18.0 for quantitative analysis and then presented in the forms of statistical tables, pie charts, and bar graphs.

Ethical Consideration.

An introductory letter was obtained from the principal of St. Francis School of Health Sciences introducing the researcher to the chairperson of the research committee of Mukono General Hospital in Mukono District to be allowed to conduct the study. Once permission was granted, the Incharge introduced me to the respondents. Respondents were assured of maximum confidentiality for all the information that will be given. The study only commenced after study objectives had been clearly explained. Participants were asked to voluntarily consent to the study and were told about free entry and free exit when the need arose. Questionnaires were then administered to participants and were filled and then later returned to me for storage in the file.

RESULTS.

Socio-economic related factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35 years.

Table 1 shows the social demographic characteristics of respondents (n=30)

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	Variable	Category	Frequency (n=30)	Percentage (%)
	Age	18-20	6	20
		21-25	17	57
		26-30	5	17
		31-35	2	6
	Total		30	100
Page 4	Education Level	Tertiary	5	16
0 1		Secondary	17	57
		Primary	6	20
		None	2	7
	Total		30	100
	Place of residence	Urban	12	40
		Rural	18	60
	Total		30	100
	Religion	Catholic	9	30
		Anglican	7	23
		Seventh-day Adventist	5	17
		Born again	6	20
		Moslem	3	10
	Total		30	100
	Marital status	Single	8	26
		Married	20	67
		Divorced	2	7
	Total		30	100
	Number of children	1	17	57
		2	7	23
		3	2	7
		4 and above	4	13
	Total		30	100
	Herbal medicine use	Yes	17	57
		No	13	43
	Total		30	100
	Community beliefs	Yes	21	70
	-	No	9	30
	Total		30	100
	Employment status	Formal	3	10
		Informal	7	23
		Unemployed	20	67
	Total		30	100

Majority of the respondents 17 (57%) were aged between 21-25years whereas minority of 2 (6%) were aged between 31- 35 years; furthermore, shows that majority of respondents 18 (60%) resided in rural areas whereas minority of 12 (40%) resided in urban areas; reveals that majority of respondents 21 (70%) reported that their community believed in the use of post-partum IUD whereas minority of 9 (30%) reported that their community never believed in the use of post-partum IUD; furthermore reveals that the highest number of the respondents 17 (57%) reported that herbal medicine is widely utilized in their communities whereas minority of 13 (43%) reported that herbal medicine is not widely utilized in their communities; **Table 2 shows awareness of postpartum IUD use.**

in addition it shows that majority of respondents 17 (56%) had attained secondary level of education whereas minority of 2 (7%) had attained no formal education; shows that majority of the respondents 9 (30%) were catholic whereas minority of the respondents 3 (10%) were Muslims and lastly table shows that majority of the respondents 17 (57%) had 1 child whereas minority of 2(7%) had 3 children.

Individual-related factors contributing to low uptake of postpartum intra-uterine device in youth aged 18-35 years at Mukono General Hospital, Mukono district.

Response	Frequency $(n = 30)$	Percentage
Yes	20	67%
No	10	33%

Page 6 The majority of the respondents 20 (67%) were aware of post-partum IUD use whereas a minority of 10 (33%) were not aware of post-partum IUD use.

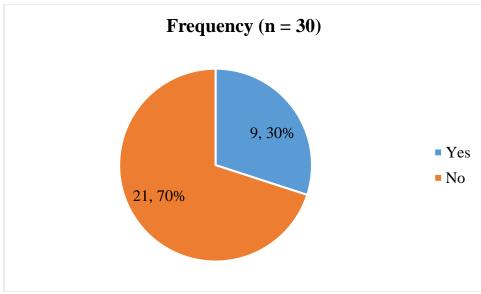


Figure 1: Shows utilization of post-partum intra-uterine device

The majority of Respondents 21 (70%) had never used a post-partum IUD whereas a minority of 9 (30%) had ever used a post-partum IUD.

Response	Frequency $(n = 30)$	Percentage
Yes	21	70%
No	9	30%

The majority of respondents 21 (70%) thought that IUD methods cause infertility whereas a minority of 9 (30%) thought that IUD methods don't cause infertility.

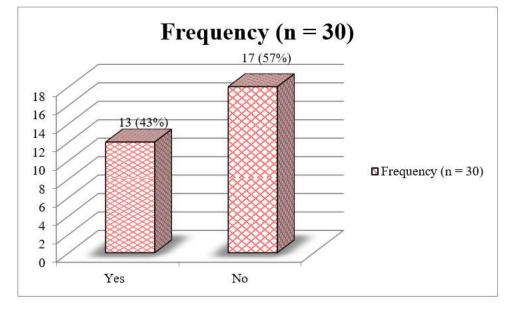


Figure 1: Shows respondent's opinion of interference in sexual intercourse by IUD.

The majority of the respondents 17 (57%) thought that IUDs interfere with the enjoyment of sexual intercourse whereas a minority of 13 (43%) thought that IUDs don't interfere with the enjoyment of sexual intercourse.

Table 4: Shows whether respondents feared invasion of privacy during IUD insertion.

Response	Frequency $(n = 30)$	Percentage
Yes	19	63%
No	11	37%

The majority of respondents 19 (63%) feared an invasion of privacy during IUD insertion whereas a minority of the respondents 11 (37%) didn't fear an invasion of privacy during IUD insertion.

Response	Frequency $(n = 30)$	Percentage
Yes	21	70%
No	9	30%

The majority of the respondents 21 (70%) agreed that IUD methods are effective in the prevention of pregnancy in puerperium whereas a minority of 9(30%) disagreed.

Health facility-related Individual factors contributing to low uptake of a postpartum intrauterine device in youth aged 18-35 years.

Table 2: Reveals whether respondents freely talk to the health workers.

Response	Frequency $(n = 30)$	Percentage
Yes	12	40%
No	18	60%



The majority of the respondents 18 (60%) didn't freely talk to the health workers whereas a minority of 12 (40%) freely talked to the health workers.

Table 3: Indicates availability of postpartum IUD services at the Hospital.

	Response	Frequency $(n = 30)$	Percentage
Page 8	Yes	19	63%
	No	11	37%

The majority of the respondents 19 (63%) reported that post-partum IUD services were always available at the hospital whereas a minority of the respondents 11 (37%) reported that services were not always available at the hospital.

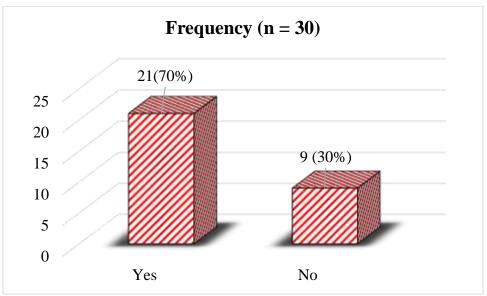


Figure 2: Indicates whether respondents waited for a long time at the Hospital before being worked on.

The majority of respondents 21 (70%) reported that they waited for a long time at the hospital before being worked on whereas a minority of 9 (30%) reported that they didn't wait for a long time at the hospital.

Table 4: Shows respondents have ever been health-educated on the benefits of using the IUD method of family planning in puerperium.

Response	Frequency $(n = 30)$	Percentage
Yes	12	40%
No	18	60%

The majority of the respondents 18 (60%) had never been health-educated on the benefits of using the IUD method of family planning in puerperium whereas a minority of 12

(40%) had ever been health-educated on the benefits of using IUD methods of family planning in the puerperium.



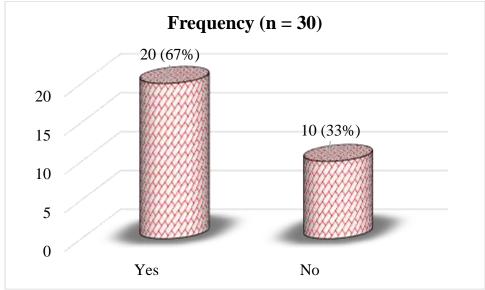


Figure 3: Shows provision of reading materials about the IUD method during puerperium.

The majority of the respondents 20 (67%) reported that they had ever provided them with reading materials about the IUD method during puerperium whereas a minority of the respondents 10 (33%) reported that they had never provided them with reading materials about IUD method during puerperium.

Table 5: illustrates whether health workers discourage respondents from using the IUD method during puerperium.

Response	Frequency $(n = 30)$	Percentage
Yes	13	43%
No	17	57%

The majority of the respondents 17 (57%) reported that health workers never discouraged them from using the IUD method during puerperium whereas a minority of 13 (43%) reported that they were discouraged from using IUD during puerperium by the health workers.

DISCUSSION OF RESULTS.

Socio-economic related factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35 years.

According to the results of the study, 57% of the respondents reported that herbal medicine was widely utilized in their communities. These results indicated that the majority of the post-partum mothers who didn't take IUDs were residing in rural communities where herbal medicine was widely utilized which could have discouraged them from using the IUD probably due to a lack of confidence in the medical care. This was in line with Pearson et al., (2020), who revealed that the wide availability of herbal medicine use in the community was directly associated with postpartum intra-uterine device utilization among youths

According to the results of the study, 57% of the respondents were aged between 21 - 25 years. These results indicated that the majority of the post-partum IUD youth who didn't utilize the postpartum IUDs were less than 30 years of age. This was in line with Chen & Gaffield, (2019), who revealed that 56% of the postpartum mothers that utilized postpartum intra-uterine devices were aged 30 years and above.

According to the results of the study, 60% resided in rural areas and were below 25 years and this is attributed to early marriages and low education status in rural areas. This was in line with Abdulwahab& Ali, (2019), who revealed that 55% of the post-partum youths who didn't utilize postpartum intra-uterine devices were residing in urban areas.

According to the results of the study, 70% of the respondents reported that their community believed in the use of postpartum IUDs. These results indicated that the majority of the post-partum youth who utilize the post-partum IUDs were residing in communities that believed in the use of postpartum IUDs. This was in line with Wulifan et al., (2018), who revealed that 56% of the post-partum mothers who utilized postpartum intra-uterine devices had cultural beliefs that supported the use of such methods.

According to the results of the study, 56% of the respondents had attained a secondary level of education. These results indicated that the majority of the post-partum youth who didn't utilize the post-partum IUDs had high levels of education. This was in contrast with Lopez et al., (2019), who revealed that 64% of the post-partum mothers who didn't utilize postpartum intra-uterine devices had attained low levels of education.

Individual-related factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35years at Mukono General Hospital, Mukono district

According to the results of this study, 70% of the respondents thought that IUD methods cause infertility. Thus, the majority of the postpartum youths aged 18 - 35 years didn't take up postpartum IUDs because of misconceptions about the mechanisms of IUDs. This was in line with Sharma & Gupta, (2017), in Chad revealed that myths and misconceptions about the mechanism of action of intra-uterine devices were directly associated with the uptake of postpartum intra-uterine devices among youth aged 18-35 years.

According to the results of this study, 57% of the respondents thought that IUD interferes with the enjoyment of sexual intercourse and this led to low utilization of IUDs in youths which is attributed to poor attitude towards IUDs because IUDs don't interfere with sexual intercourse. This was in line with Borthakur et al., (2019), who revealed that 61% of the post-partum youths who didn't utilize postpartum intra-uterine devices had poor attitudes towards FP services.

According to the results of this study, 63% of the respondents feared invasion of privacy during IUD insertion. These results indicated that the majority of the postpartum youths aged 18 - 35 years who didn't take up postpartum IUDs had a fear of privacy invasion which could have discouraged them from utilizing the method of contraception. This was in line with Chen &Gaffield, (2019), who revealed that fear of privacy invasion during IUD insertion contributed to low uptake of IUDs among post-partum youths.

According to the results of this study, 70% of the respondents agreed that IUD methods are effective in the prevention of pregnancy in the puerperium. These results indicated that the majority of the postpartum youths aged 18 – 35 years who didn't take up postpartum IUDs knew the benefits of the IUD method and therefore didn't have any misconceptions about IUDs. This was contrary to Sharma & Gupta, (2017), in Chad who revealed that 65% of the post-

partum mothers who hadn't utilized postpartum intrauterine devices had misconceptions about the mechanisms and effect of the IUDs methods.

Health facility-related factors contributing to low uptake of postpartum intra-uterine devices in youth aged 18-35 years.

According to the results of the study, 60% of the respondents didn't freely talk to the health workers, and this might be because the majority of the post-partum mothers didn't take IUDs. After all, health workers had a negative attitude which in turn could have discouraged the respondents from sharing the challenges they face with Family planning thus hindering their uptake of the methods. This was in line with Abdulwahab& Ali, (2019), who revealed that the negative attitude of health workers towards post-partum mothers contributed to low uptake of postpartum intra-uterine device methods.

According to the results of this study, 70% of the respondents reported that they waited for a long time at the hospital before being worked on, and this attributed to work overload which could have discouraged them from accessing the postpartum IUD. This was in line with Abdulwahab& Ali, (2019), who revealed that long waiting hours at the health facilities contributed to low uptake of postpartum intra-uterine devices among post-partum mothers.

According to the results of this study, 63% of the respondents reported that post-partum IUD services were always available at the hospital, though still low uptake at the health facility.

CONCLUSION.

This study specifically sought to determine the factors contributing to the low uptake of postpartum intra-uterine devices in youth aged 18-35 years at Mukono General Hospital, Mukono district. The study established that the individual-related factors included misconceptions and poor attitudes toward IUD utilization. Furthermore, socio-economic-related factors included the wide utilization of herbal medicine in communities. Finally, the health facility-related factors included the negative attitude of health workers and long waiting hours for services.

RECOMMENDATIONS.

Recommendations to the health facility and MOH.

• Strengthen the knowledge of post-partum mothers about the benefits of utilizing postpartum IUDs.

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- Conduct campaigns targeting the communities to discourage the use of herbal medicine.
- Health workers should develop a management plan to reduce the long waiting hours of postpartum mothers at the health facility.
- Health facilities should conduct training to improve the attitude of health workers to postpartum mothers.
 - Recruitment of more health workers
 - Integration of family planning services in door-todoor services.
 - Lobby from the Ministry of Health for more funding to facilitate awareness campaigns about postpartum IUD utilization.

Recommendations for further research.

The following topics can be considered by any interested research to broaden the body of knowledge in this area.

• Knowledge, attitude, and practices towards postpartum IUD utilization among postpartum mothers.

Implications to the midwifery practice.

Health workers working at Mukono General Hospital, Mukono district should take every opportunity to sensitize and health educate the benefits of postpartum IUD utilization to postpartum mothers.

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LIST OF ACRONYMS.

IUC: Intra-uterine contraception

IUCD: Intra-uterine Contraceptive Devices

NFPP: National Family Planning Programme

PPIUCD: Post-partum Intra-uterine Contraceptive Device

UDHS: Uganda Demographic Health Sector

USAID: United States Agency for International Development

HMIS: Health Management Information System.

WHO: World Health Organization.

SOURCE OF FUNDING.

The study was not funded.

CONFLICT OF INTEREST.

The author declares no competing interests.

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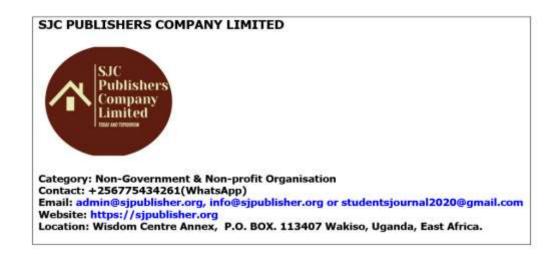
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