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KNOWLEDGE OF THE USE OF HERBAL MEDICINE AMONG PREGNANT WOMEN ATTENDING THE ANTENATAL CLINIC OF JINJA REGIONAL REFERRAL HOSPITAL. A CROSS-SECTIONAL STUDY.

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ABSTRACT
Purpose
The aim of the study was to determine knowledge towards the use of herbal medicine among pregnant women attending the antenatal clinic of Jinja regional referral hospital, Jinja district.

Methodology
The study adopted a descriptive cross-sectional study design. The study was carried out from May 2023 to October 2023.

Results
Out of the 50 respondents who participated in the study, half 25 (50%) were within the age bracket of 25-32 years whereas the least 2 (4%) were within the age bracket of 40-45 years. More to that, (85%) of the respondents had heard about herbal medicine, (55%) got the information from friends and relatives, (52%) gave others as side effects of herbal medicine, (56%) knew that herbal medicine are from plant sources.

Conclusion
The study established that the knowledge towards herbal medicine was reasonable since majority (85%) of the respondents had ever heard about herbal medicine. Pregnant women had fairy adequateknowledge towards herbal medicine use.

Recommendation
The ministry of health through the National Drug Authority should carry out more studies andclinical trials on the various herbal medicines used during pregnancy to rule out harmful actives.

Background
The WHO defines herbal medicine as a practice which includes the herbs, herbal material, herbal preparations and finished herbal products that contain as active ingredients parts of plants or others derived from plant parts such as leaves, stems, flowers, roots and seed. (Nontokozo. Z. Msomi, 2018)

Pregnancy is characterized by significant physiological changes resulting in various symptoms such as nausea, vomiting, heartburn and constipation (Magalie El Hajj, 2020). These ailments often cause pregnant women to resort to self-medication including the use herbal medicines. (Magalie El Hajj, 2020)

The use of herbal medicine among pregnant women is increasing in many low- and high- income countries due to their cost effectiveness in treatment and ease of access with 80% in Africa and 40% in Asian countries. The use of herbal medicine in Africa correlated with poor knowledge about the adverse effects to the pregnant woman and unborn child, low social economic class among others. (Fentahan Adane, 2020)

Herbs can cause serious fetal abnormalities, interact with prescription drugs and have unanticipated side effects during pregnancy and childbirth. So, details of herbs use during pregnancy along with duration and frequency of usage are important to know for the well-being of both mother and baby. (Sadia jahan, 2022)

Worldwide herbal medicine has been used for disease prevention and treating ailments. It is known that between 65% and 85% of the world population used herbal medicine as their primary form of health care. The prevalence of herbal medicine use during pregnancy ranges from 12 to 82.3% (Laelego, 2018). And a multinational study conducted in different countries showed that 28.9% of pregnant women used herbal medicine during their pregnancy (Laelego, 2018).

A multinational study reported a prevalence of 27.7% among pregnant women from Western Europe, 11.9% from Northern Europe, 51.9% from Eastern Europe, 26.6% from NorthAmerica, 17.9% South America and 43.8% from Australia use herbal medicine during pregnancy and the prevalence varies basing on

geographical location, ethnicity, cultural traditions and social economic status. (Amikeng Zawuo Leke, 2022)

In Africa, studies suggest wide variability in use of herbal medicine during pregnancy from a high of about 68% as reported in one Nigeria study to a low of 12% in another study. In LusakaZambia, 21% of pregnant women seeking care in public health system used traditional medicine during pregnancy. (Richard Nyeko, 2016)

In Uganda, the prevalence of herbal medicine use during pregnancy and delivery is reported tobe greater than 80% in western Uganda and 20% in northern Uganda. And a study done at Mbarara regional referral in 2013 found that 35% of the women who had uterine rapture had actually taken herbal preparations during labor process and were 15 times more likely to get itthan those who did not. It is also documented that pregnant mothers don't usually disclose useof herbs to their attending health care worker. (Laban Muteebwa, 2021). The aim of the study was to determine knowledge towards the use of herbal medicine among pregnant womenattending the antenatal clinic of Jinja regional referral hospital, Jinja district.

METHODOLOGY
Study design
A descriptive cross- sectional study design was used to address the relationship between the study variables in this study.

Study area
The study was carried out at the antenatal clinic of Jinja regional referral hospital located in Jinja city, Jinja district eastern Uganda. It's approximately 84km east of Mulago national referral hospital. Jinja regional referral hospital has a bed capacity of 600 with several departments like Antenatal, Eye, ART, Dental, Pharmacy, OPD, emergency and many others.Its coordinates are $00^0 25'52"$ N$33^0 12'18"$ E. The study was carried out from May 2023 to October 2023.

Study population
The study population was comprised of pregnant women attending the antenatal clinic of Jinja regional referral hospital who were willing to participate in the study.

Inclusion criteria
All consenting pregnant women were included in the study.

Exclusion criteria
All pregnant women who consented but were unavailable at the time of the studywere excluded.

Sample size determination
A sample size of pregnant women was determined using the Burton's formula given below, (Burton's 1965).
S= 2(QR) O:
Where:
S=required sample size

Q=number of days the researcher will spend while collecting data
R=maximum number of respondents per day
O=maximum time the interviewer spent on each respondent And;
Q=10 days
R=5 respondentsO=30minutes S=2(5×10)1/2
Therefore, the researcher will use 50 respondents.

Sampling technique
Simple random sampling technique was used to select the study participants from the source population. The technique was preferred because it was cheaper and it eliminated bias since itgave everyone equal chance to be selected.

Sampling procedure
50 respondents were chosen by assigning numbers to everyone in the population and then random numbers were called and selected to be the study respondents.

Data collection method
A questionnaire with both open ended and closed ended questions were written in English language and later translated into local language (Lusoga) which were formulated and administered to consenting pregnant women.

Data collection tool
An organized semi-structured questionnaire, with both open ended and close ended questions written in English language. This data collection tool was preferred because when some respondents were not well conversant with the language, we were able to translate for them.

Data collection procedure
A letter of introduction will be obtained from Kampala school of health sciences and it was taken to Jinja regional referral hospital, Jinja district and a permission was obtained from the facility administration. Two research assistants were trained in data collection using the questionnaire. The researcher and the assistants met the respondents, introduced themselves and explained the purpose of the study in order to gain consent from them. Respondents were selected in such a way that; 10 patients will be chosen randomly every day for 5 days.

Study variables
Dependent variable
In this case herbal medicine was the dependent variable.
Independent variables
Knowledge towards the use of herbal medicine among pregnant womenwere the independent variables.

Quality control
Pretesting of the research tool
The questionnaires were printed in English language and pretested before use at Buwenge Health center IV, Jinja district. The aim was to ensure that they were valid, reliable

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and relevantto the study.

Data analysis and presentation
Data was systematically analyzed manually by use of tally sheets and entered in the excel computer program to generate tables, graphs, and pie charts for easy interpretation of the studyfindings.

Ethical consideration
The proposal was approved by the supervisor, permission was sought from Kampala School of Health Sciences research committee introducing the researcher to the medical superintendent of Jinja regional referral hospital, seeking permission to carry out the study, with assurance of confidentiality. Once permission was granted; participants were informed of the purpose of thestudy and privacy during the interview. Respondents received an explanation of the study before enrolment and only those who were willing to participate were involved. Respondents were free to withdraw from the study at any time and strict confidentiality was observed. Initials and study numbers were used to identify the respondents instead of full names.

RESULTS
Demographic data
**Table 1 shows the distribution of respondents according to demographic data**
N=50

Variables		Frequency (f)	Percentage (%)
Age	18-24	10	20
	25-32	25	50
	33-39	13	26
	40-45	02	04
	Total	50	100
Tribe	Musoga	30	60
	Muganda	12	24
	Mutoro	05	10
	Others	03	06
	Total	50	100
Marital status	Single	29	58
	Married	17	34
	Divorced	04	08
	Total	50	100
Religion	Muslim	15	30
	Catholic	13	26
	Anglican	06	12
	Other	16	32
	Total	50	100
Number of children	One	13	26
	Two	07	14
	3 and more	18	36
	None	12	24
	Total	50	100
Educationlevel	Primary	04	08
	Secondary	25	50
	Tertiary	19	38
	Never went toschool	02	04
	Total	50	100

Table 1 show the demographic characteristics of the respondents. Out of the 50 respondents who participated

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in the study, half 25 (50%) were within the age bracket of 25-32 years whereas the least 2 (4%) were within the age bracket of 40-45 years. The study further revealed that majority 30 (60%) were Basoga by tribe, 12 (24%) were Baganda, 5 (10%) were Batoro and the least 3 (6%) were falling under different other tribes. For marital status, the findings showed majority 29 (58%) were single, 17 (34%) were married and the least 4 (8%) were divorced. Furthermore, the findings of the study showed that majority 16 (32%) belonged to different other religions mostly born again, 15 (30%) were Muslims, 14(28%) were Catholics and the least 6 (12%) were Anglicans. On the number of children, 13(26%) had one child, 7(14%) had two children, 18(36) had three and more children and 12(24%) had none. For the level of education, half 24(50%) went to secondary, tertiary level 19(38%), primary level 4(8%) and 2(4%) never went to school.

Knowledge towards the use of herbal medicine among pregnant women

Figure 1 shows the distribution of respondents according to whether they heard about herbal medicine use N=50
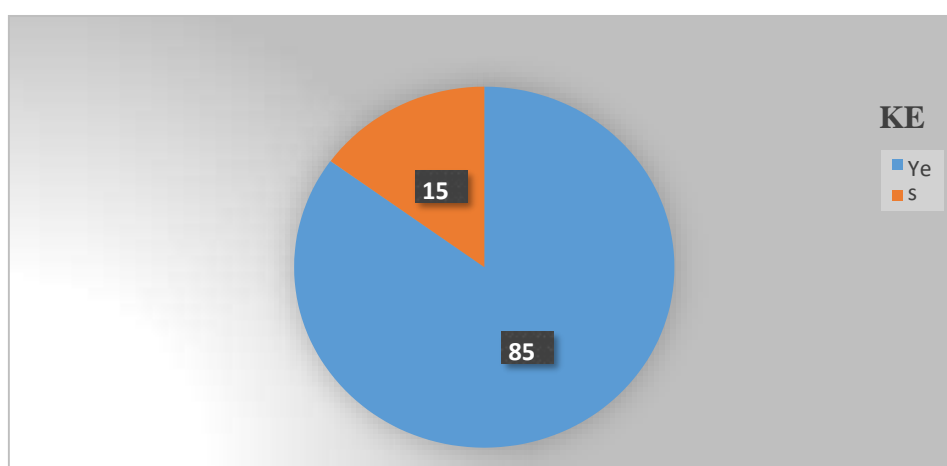
From the figure 1, majority (85%) of the respondents had ever heard about herbal medicineuse whereas the minority 1(15%) had not heard about herbal medicine use because she was a pregnant teenager without any adult figure in her life.

Figure 2 shows the distribution of respondents according to the knowledge on sideeffects of herbal medicine N=50
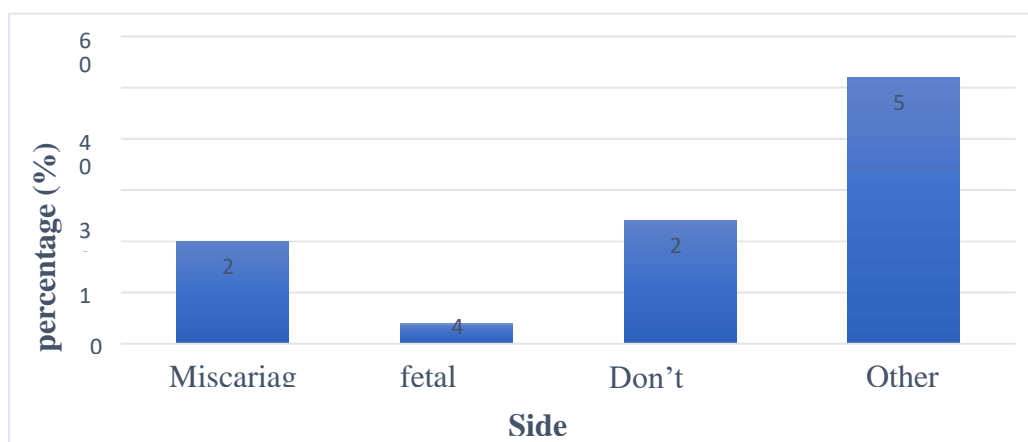

From the figure 2, more than half (52%) of the respondents answered with other side effects of herbal medicine to pregnant women like retardation and uterine death whereas the least (4%) said fetal death as the side effect of medicine to pregnant women.

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Table 2 shows the distribution of respondents according to the sources of herbal medicine they know N=50

Variables	Frequency (f)	Percentage (%)
plant source	28	56
Soil and minerals	06	12
Others	14	28
I don't know	02	04
Total	50	100

From the table 3, more than half (56%) of the respondents know plants as the herbal medicine source and the least (4%) of the respondents don't know the source of herbal medicine.

Figure 3 shows the distribution of respondents according to their source of information on herbal medicine N=50
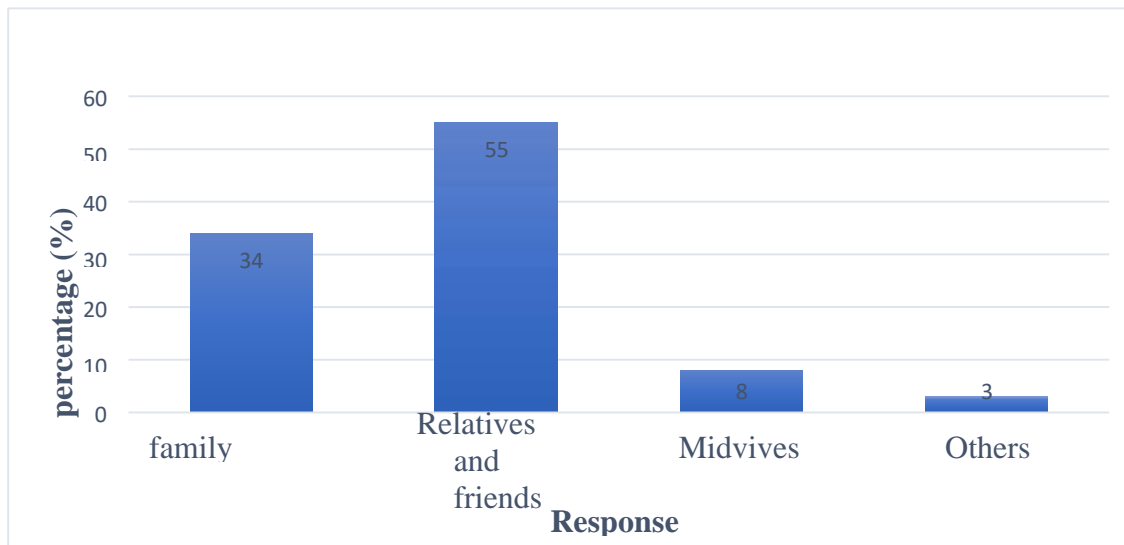
From Figure 3, most (55%) of the respondents got the information about herbal medicine from relatives and friends and the least (2%) responded with other methods of herbalmedicine use.

Discussion
Knowledge of the use of herbal medicine among pregnant women

The study results depicted that the majority (98%) of the respondents had ever heard about herbal medicine use, this implies that almost all the respondents knew about herbal medicine except the 1 (2%) who was a pregnant teenager. This is probably because she had no female adults to look up to and ask for help from or maybe in the society where she grew up, they don't talk about things concerning pregnancy to teenagers. The study results agree with (Laelago Tariku, 2016) whose findings showed that (92.1%) of the study population heard about herbal medicine from different sources.

The study results showed that most (52%) of the respondents gave other side effects of herbal medicine such as fetal retardation and uterine damage. This indicates that most of the study population knew the possible side effects of herbal medicine on both the unborn child and the mother. This is probably because herbal medicines contain different actives of which you can never know which is harmful or safe. These findings agree with (Italo FrancescoAngelillo, 2018) whose findings showed most (81.1%) of the pregnant women knew the possibility of harm to the unborn baby including fetal retardation, uterine death, and malformations.

The study results showed that the majority (56%) of the respondents know plants as a source ofherbal medicine. This implies that the biggest number of the study population had an idea thatherbal medicine is made from plants. This is probably because most of the categories of herbal.medicine suggested by the respondents like ginger, Kamunye, garlic, and we are plants. This isin line with (Syed Faisal Zaidi, 2022) where (80%) of pregnant women that herbal medicines are made from plant sources.

The study findings showed that more than half (55%) of the study population heard about herbal medicine use from friends and relatives. This indicates that friends and

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relatives play a much bigger role in the distribution of knowledge and information about herbal medicine use duringpregnancy than family members. This is probably because customary, pregnant women in Uganda are supposed to talk to their rural relatives when pregnant. The study is in line with (Ahmad M Eid, 2020) whose study showed that (50.3%) of pregnant women heard about herbal medicine from relatives and friends.

Conclusions
The study established that the knowledge of herbal medicine was reasonable since the majority (85%) of the respondents had never heard about herbal medicine, (55%) obtained this information from friends and relatives, (52%) were aware of the possible side effects of herbalmedicine and (56%) knew that herbal medicines were made from plants. This depicted that they had adequate knowledge of herbal medicine.

Recommendations
Midwives and other health workers at the antenatal clinic and maternity department of Jinja Regional Referral Hospital should conduct more educational sessions for pregnant women about the side effects of herbal medicine to pregnant women to prevent possible harmful side effects in their current and future pregnancies.
The antenatal health care education should be mostly done in the first trimester because it's the most fragile stage where organogenesis takes place to eliminate the harmful side effectsto the unborn baby like retardation, mutations, and miscarriages.
The Ministry of Health through the National Drug Authority should carry out more studies andclinical trials on the various herbal medicines used during pregnancy to rule out harmful activities.

ACKNOWLEDGEMENT

ABBREVIATIONS AND ACRONYMS
ANC: Antenatal
HCPs: Health Care Professionals
HM: Herbal Medicine
HMIS: Health Management information
IOL: Induction of Labor
WHO: World Health Organization

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