Factors Contributing to increased Use of Herbal Medicine among Pregnant Women aged 18-45 years attending Buwambo Health Centre IV, Wakiso District. A Cross-sectional Study.

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Abstract

Background:
The purpose of the study was to determine the factors contributing to the increased use of herbal medicine among pregnant women aged 18-45 years attending Buwambo Health Centre IV, Wakiso District. The specific objectives were to determine the: Maternal, Socioeconomic, and health facility-related factors contributing to the increased use of herbal medicine among pregnant women aged 18-45 years.

Methodology:
The study design was descriptive and cross-sectional and the researcher employed the simple random sampling technique. The study instrument was a questionnaire and a sample of 50 respondents was used.

Results:
Regarding the health facility-related factors contributing to increased use of herbal medicine, the majority (74%) of the respondents reputed that the health workers took a lot of time to work on them, and most (40%) had their homes more than 10km away from the health facility and more than half (52%) waited over 2hrs to be seen by the doctor.

Conclusion:
Maternal factors contributing to increased use of herbal medicine included having information about herbal medicine from family members (70%), being in the first trimester (76%), and the pregnancy-related complications such as nausea and vomiting (40%), socio-economic factors were; encouragement by their culture and religion (60%), availability of herbal medicine (56%), health facility-related factors were; long waiting hours (74%), and long-distance from the health facility (40%).

Recommendation:
The researcher recommended the Ministry of Health put up more health facilities to reduce the distance moved by the pregnant women while looking for the antenatal care services and that Buwambo Health Centre IV should intensify health education the pregnant women on the importance of antenatal care visits and the implications of the use of herbal medicine during pregnancy.

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1 Background of the study

Herbal medicine refers to the use of plant-derived materials or preparations to treat diagnose and prevent illnesses and maintain wellbeing. According to (Aljofan *et al.,* 2020), the use of herbal medicine is a common practice in different parts of the world,

particularly in developing countries, despite limited scientific evidence establishing the safety and efficacy of such products (Ekor, 2014).

The recent resurgence of public interest in herbal remedies has been attributed to several factors some of which include, various claims on the efficacy of plant medicine, preference of consumers for natural therapies and a greater interest in alternative medicine, erroneous belief that herbal products are superior to the manufactured products, dissatisfaction with the results from orthodox pharmaceuticals and the belief that herbal medicine might be effective in the treatment of certain diseases where conventional therapies and medicine have proven to be ineffective or inadequate, high costs and side effects of most modern drugs, improvement in the quality, efficacy, and safety of herbal medicine with the development of science and technology, patients believe that their physicians have not properly identified the problem hence feeling that herbal remedies are another option (Leonti *et al.,* 2013).

Worldwide, the increase in the use of herbal products is noticed. The safety of herbal drugs becomes particularly important in pregnant women and children. Even though available data is insufficient to justify herbal use during pregnancy, exposure to herbal products is frequent in these subjects. Some of the more complex reasons for preference for herbal medicine are associated with cultural and personal beliefs and philosophical views toward life and health. Researchers have shown that herbal medicines are used by a large portion of pregnant women (tabatabaee, 2011). Herbs are generally perceived as safe, harmless, and free from side effects but there have been reports on side effects in pregnant mothers and their fetuses as well as on drug interactions.

According to (WHO,2008) an estimated 40% of all health care services in China comprise traditional medicines and up to 80% of Africans still use traditional medicine to meet their health care needs including use during pregnancy. Such treatments are also rapidly gaining momentum in more developed countries where they are referred to under the umbrella term of complementary alternative medicine (CAM).

In Africa, herbal medicine has been used as an alternate form of treatment amidst the advent of Orthodox therapies of health care. Herbs have been used as a wellspring of potent remedies and have become an intrinsic part of various autochthonous cultures around the world making women use them during pregnancy to treat pregnancy-related complications.

In Ethiopia, more than 80% of the population is said to be using traditional medicine, the majority of which are pregnant women. A study done in Nekemte Hospital, western Ethiopia showed that 69.8% of pregnant women use herbal medicines and the most common herbs used were ginger (44.4%), garlic (37.3%), and eucalyptus (9.1%) (Bayisa, 2014).

In a study conducted by Kyegombe et al (2016) in kiryandongo general hospitals in Masindi District on herbal medicine use in preparation for labor, 44% considered herbal medicine to be safe during pregnancy and preferred them to conventional medicines because they have low side effects, are cheap and easy to access and is part of their tradition to use them during pregnancy. Thirty-one percent believed that those herbs are neither dangerous to the mother nor the fetus.

More than 60% of Uganda's population depends on traditional medicine because it's accessible, affordable, and culturally familiar with an estimated traditional health practitioner for every 200-400 Ugandans, herbal medicine has long been used to manage a range of common conditions including malaria, nausea and vomiting, back pain and respiratory problems, toothaches skin disease and childbirth complications.

2 Methodology

Study design

A quantitative descriptive study was undertaken. The design was used because it helps the researcher to collect quantitative data in the shortest time possible.

Study area

The study was conducted at Buwambo Health Centre IV, Wakiso District. Buwambo Health Centre IV is a government-aided rural health facility located in Buwambo parish, Gombe sub-county, Wakiso district in the central region of Uganda. It serves as a referral health unit for 14 other rural health units in the kyadondo North health sub-district. It is managed by a senior medical officer and a senior clinical officer.

It has 2 Laboratories, 2 Out Patient departments, 1 Operating theatre, 1 Eye clinic, 1 Dental clinic, 1

circumcision clinic, 2 ART clinics, an Antenatal clinic, 2 maternity wards, and a Maternal and child health care unit that offers immunization and family planning services.

Study population

The study population comprised pregnant women attending Buwambo Health Centre IV, Wakiso District because it is a highly vulnerable group due to their limited knowledge about the adverse effects of herbal medicine and the antenatal care services offered.

Sample size determination

The sample size was determined by using Kish and Lisle's (1967) formula, which states that;

N=a2bc/x2 (Kish and Lisle, 1967)

Where;

N- represents the sample size.

a- represents standard normal deviation corresponding to a 95% confident interval (CI) which is 1.96.

b- represents the proportion of the survey population with characteristics under study. Because there is no reasonable estimate of the number of people who met the inclusion criteria in the study population, it was presumed at 50% 0r 0.5

c- Represents the probability that the researcher got a certain amount of error, whereby 1-p (100 or 1-0.5) will also be 50% (0.5)

x- Represents the degree of accuracy which ranges from 0.01-to 0.1. A margin of 0.138% was used to increase the margin of accuracy.

Therefore, the sample size N was: (1.96)2x 0.5 x 0.5/ (0.138)2

=50.426

=50 respondents.

The sample size was 50 respondents.

Sampling technique

A simple random sampling technique was employed to choose the participants for the study. This technique was used because it minimizes and eliminates bias and data can be collected from a large population in a short period hence saving time.

Sampling procedure

A simple random sampling method was used where the pregnant women were numbered. This method involved picking the numbers randomly. The method was cheap, easy to conduct, and avoided any bias.

Data collection method

Data was collected using questionnaires and interview methods. Information obtained in the course of the interview was electronically recorded so that it was not altered when transcribing the data.

Data Collection tools

As for the study, data was collected using a questionnaire which is defined as a predetermined, written list of questions typed in English that may be answered by the respondent without a supervisor or explanation by the interviewer, therefore this helps the researcher to reduce on the possibility of getting bias from the respondent. As a structured type of questionnaire was designed to allow the respondents to write responses they wanted and completed them in time. It further enables the researcher to collect data from a large population in a short period.

Data Collection Procedure

An introduction letter was obtained from the principal, Kampala School of Health Sciences and then taken to the office of the District Health Officer (D.H.O) who forwarded the researcher to the in charge of Buwambo Health Centre IV who granted permission to proceed with the data collection within the Health Centre and was required at every department to be granted permission to collect data from there. After the exercise, participants were thanked for their contribution to the study and the researcher checked through the data and filled in the questionnaires before respondents left the facility to ensure that the questionnaires are filled.

Study Variables

The independent variables in this study were the factors contributing to the increased use of herbal medicine and the dependent variable for the study was herbal medicine use among pregnant women aged 18-45 years.

Quality control

Before data collection, a pretest of the questionnaire was done among 10 pregnant women at Wakiso Health Centre IV and the information gathered was used to evaluate the validity and reliability of the tools. The results from the pre-tested questionnaires were not considered in the main study and research assistants were trained. The inclusion criteria were only pregnant women attending Buwambo Health Centre IV who consented to participate freely in the study.

3 Data analysis and presentation

Data was analyzed manually using A4 sheets and then fed into Microsoft excel to generate bar graphs, tables, and pie charts for easy presentation.

Ethical consideration

The researcher introduced the topic and the purpose of the study to the respondents then thereafter they signed the consent form first before participating in the study. The respondent was assured of confidentiality as no name appeared on the questionnaire. No participant was forced to participate in the study and all study materials used during the interview were safely kept in a lock and key cupboard.

4 Limitations and possible solutions

Some of the respondents were not willing to participate in the study freely and this was solved by fully explaining to them the purpose of the study.

The research study is a very lengthy process and yet the researcher had limited time. This was solved by employing a research assistant.

The study required a lot of resources and funds to be carried out. This was solved by working under a strict budget.

Study Findings:

Demographic information

From the table above, most (28%) of the respondents were aged between 35-45 years whereas the least (22%) were aged between 18-24 years.

From the table above, most (36%) of the respondents were Muslims whereas the least (4%) belonged to other religions.

Furthermore, most (60%) of the respondents had secondary education whereas the least (4%) had never gone to school.

Furthermore, half (50%) of the respondents were peasants whereas (8%) were housewives.

Based on their marital status, most (60%) of the respondents were married whereas the least (2%) were widows.

Maternal factors contributing to increased use of herbal medicine among pregnant women.

From the figure above, the majority (70%) of the respondents had ever received antenatal care services whereas a minority (30%) had not received antenatal care services.

Regarding whether the respondents had ever heard of Herbal Medicines, all (100%) of the respondents had heard of Herbal Medicines.

From the figure above, the majority (70%) of the respondents got the first information concerning herbal medicines from relatives whereas the minority (4%) got the information from health workers.

From the table above, most (40%) of the respondents had complications of nausea and vomiting whereas the least (10%) had other complications such as Urinary Tract Infections.

Regarding whether the respondents had ever used herbal medicines, all of the respondents had ever used them.

From the figure above, the majority (76%) of the respondents had mostly used the herbal medicine in their first trimester whereas the minority (6%) had used the herbal medicine in their second trimester.

From the table above, the majority (72%) of the respondents mostly used ginger whereas the least (2%) used Eucalyptus during pregnancy.

4.3 Socio-economic factors contributing to increased use of herbal medicine among pregnant women aged 18-45 years.

Concerning on availability of herbal medicines, all (100%) of the respondents agreed that they were readily available.

From the table above, more than half (54%) of the respondents obtained the herbal medicine from the garden whereas the least (6%) obtained the herbal medicine from other sources such as mothers-in-law.

From the figure above, most (60%) of the respondents' culture and religion encouraged the use of herbal medicine during pregnancy whereas the least (40%) were discouraged by their culture and religion.

From the table above, most (56%) of the respondents used herbal medicine because they were readily available whereas the least (6%) used herbal medicines because of other reasons.

From the figure above, the majority (80%) of the respondents' partners knew about the antenatal care services offered at the health facility whereas the minority (20%) did not know.

From the table above, most (60%) of the respondents' partners did not have time to find out whether the health facility offered antenatal care

Table 1. Shows the distribution of respondents according to their demographic features.

Variables	Frequency(f)	Percentage (%)
Age		
18-24	09	18
24-27	13	26
27-35	12	24
35-45	16	32
Total	**50**	**100**
Religion		
Protestant	06	12
Born again	11	22
Catholic	13	26
Muslim	18	36
Others	02	04
Total	**50**	**100**
Level of education		
Primary	8	16
Secondary	30	60
Tertiary	10	20
Never gone to school	02	04
Total	**50**	**100**
Occupation		
Peasant	25	50
Business	06	12
Sexual worker	08	16
House wife	04	08
Others	07	14
Total	**50**	**100**
Marital status		
Single	10	20
Married	30	60
Divorced/ Separated	09	18
Widow	01	02
Total	**50**	**100**

Table 2. Shows the distribution of respondents according to the complications commonly faced during pregnancy. N=50

Complications	Frequency (f)	Percentage (%)
Nausea and vomiting	20	40
Morning Sickness	17	34
Anemia	8	16
Others	5	10
Total	**50**	**100**

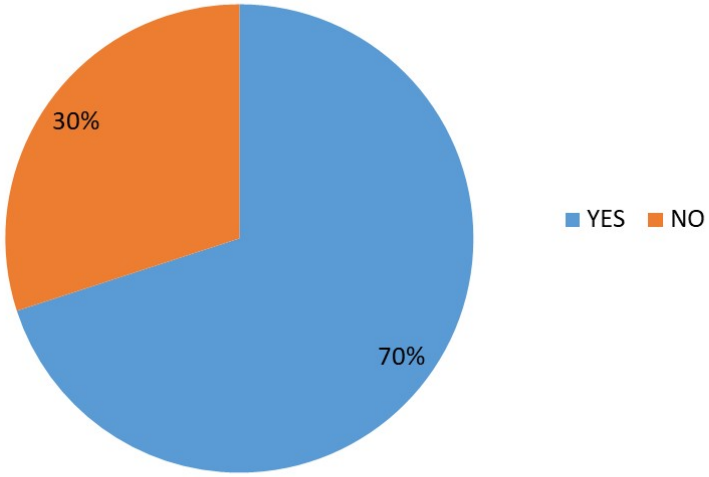

Figure 1. Shows the distribution of respondents on whether they had ever received antenatal care services. N=50

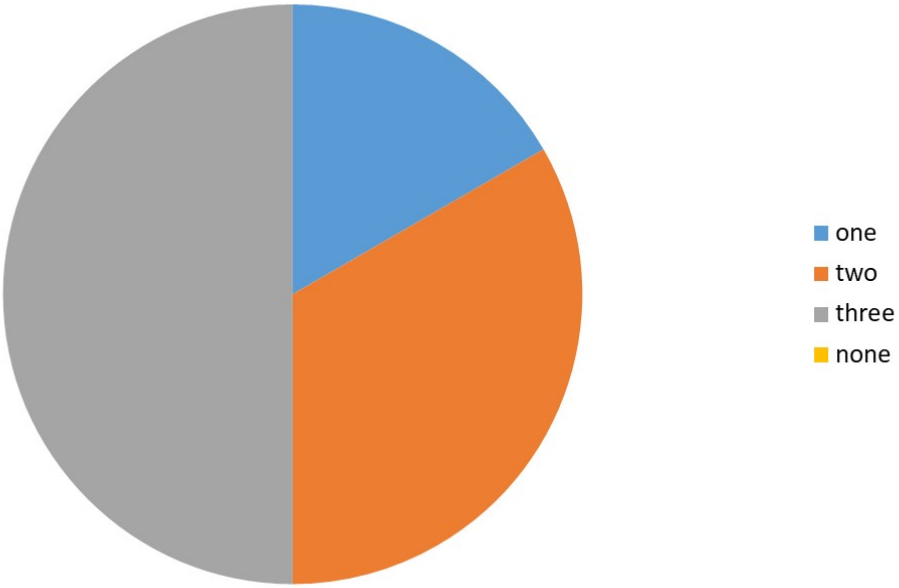

Figure 2. Shows the distribution of respondents according to the number of antenatal care visits attended. N=50

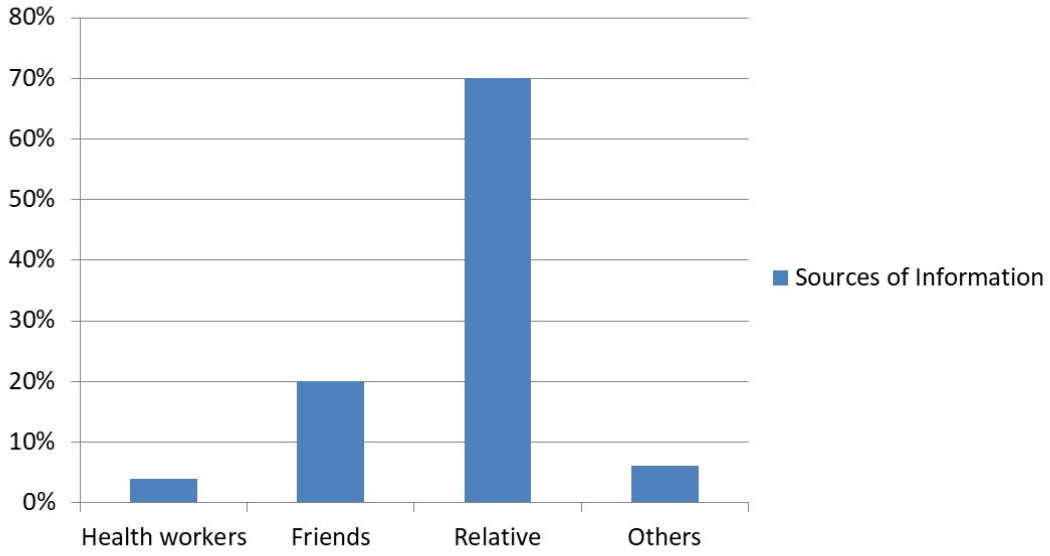

Figure 3. Shows the distribution of respondents according to their source of information. N=50

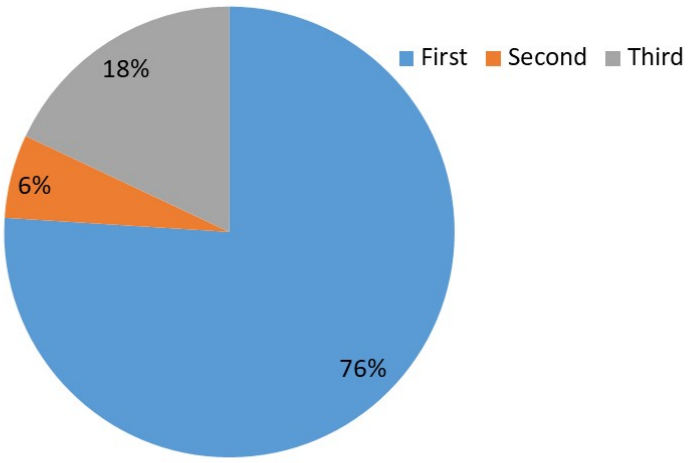

Figure 4. Shows the distribution of respondents according to the trimester in which the herbal medicine was commonly used.

Table 3. Shows the distribution of respondents according to the herbs commonly used during pregnancy. N=50

Herb	Frequency (f)	Percentage (%)
Ginger	36	72
Garlic	10	20
Eucalyptus	01	02
Others	03	06
Total	**50**	**100**

Table 4. Shows the distribution of respondents according to where they got the herbal medicines from. N=50

Source	Frequency (f)	Percentage (%)
Garden	27	54
Herbal clinic	05	10
Backyard	15	30
Others	03	06
Total	**50**	**100**

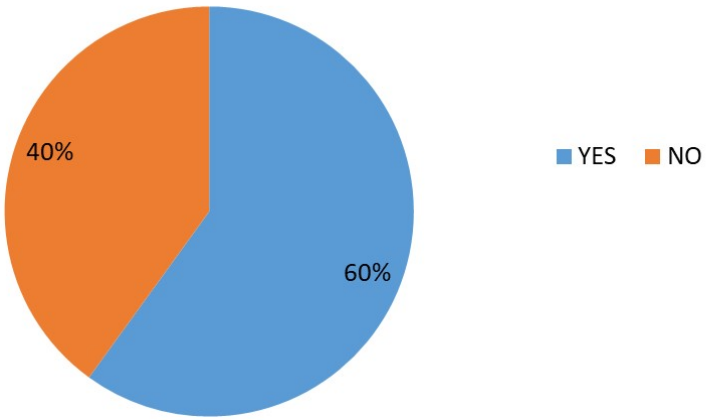

Figure 5. Shows distribution of respondents on whether their culture and religion encouraged the use of herbal medicine during pregnancy N=50

Table 5. Shows the distribution of respondents according to the reasons for use of herbal medicine. N=50

Reason	Frequency (f)	Percentage (%)
Effective	8	**16**
Cheap	11	**22**
Readily available	28	**56**
Others	03	**06**
Total	**50**	**100**

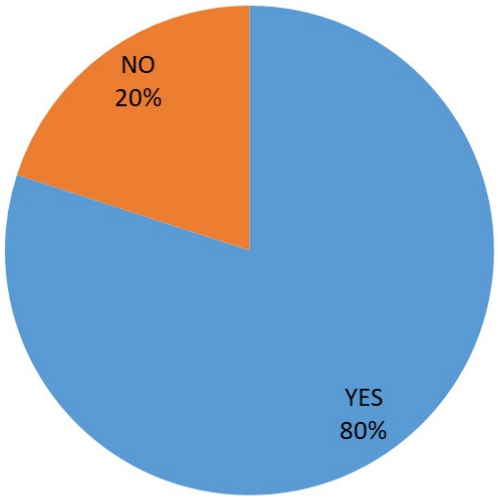

Figure 6. Shows the distribution of respondents by whether their partners knew about the antenatal care services offered at the health facility. N=50

Table 6. Shows the distribution of respondents based on the reasons why their partners did not know that antenatal care services were offered at the health facility. N=50

Reasons	Frequency (f)	Percentage (%)
Not interested	12	24
Has no time	30	60
It's against culture/religion	05	10
Others	03	06
Total	**50**	**100**

services at the health facility whereas the least (6%) gave other reasons.

Health facility factors contribute to the increased use of herbal medicine among pregnant women.

From the table above, most (40%) of the respondents' distance to the health facility was between 1 to 5 km whereas the least (16%) was above 10km.

Concerning whether the health facility offers antenatal care services, all (100%) of the respondents agreed that they are offered.

From the table above, (38%) of the respondents incurred a cost of shs. 2000 to shs. 3000 travelling to the health facility whereas the least (14%) incurred a cost of above shs.5000.

From the figure above, half (50%) of the respondents used motorcycles as their means of transport to get to the health facility whereas the least (6%) used bicycles.

From the figure above, most (65%) of the respondents said that the health workers were uncooperative whereas the least (35%) said otherwise.

From the table above, the majority (74%) of the respondents said that the health workers took a lot of time to work on them whereas a minority (4%) said that they were rude.

From the table above, more than half (52%) of the respondents took over 2 hours to see the doctor at the health facility whereas the least (10%) took 1 hour.

Table 7. Shows the distribution of respondents according to the distance to the health facility. N=50

Distance (km)	Frequency (f)	Percentage (%)
Less than 1km	13	26
1-5km	8	16
5-10km	09	18
Above 10km	20	40
Total	**50**	**100**

Table 8. Shows the distribution of respondents according to how much they used to travel to the health facility. N=50

Cost (shs)	Frequency (f)	Percentage (%)
2000-3000	07	14
3000-4000	08	16
4000-5000	16	32
Above 5000	19	38
Total	**50**	**100**

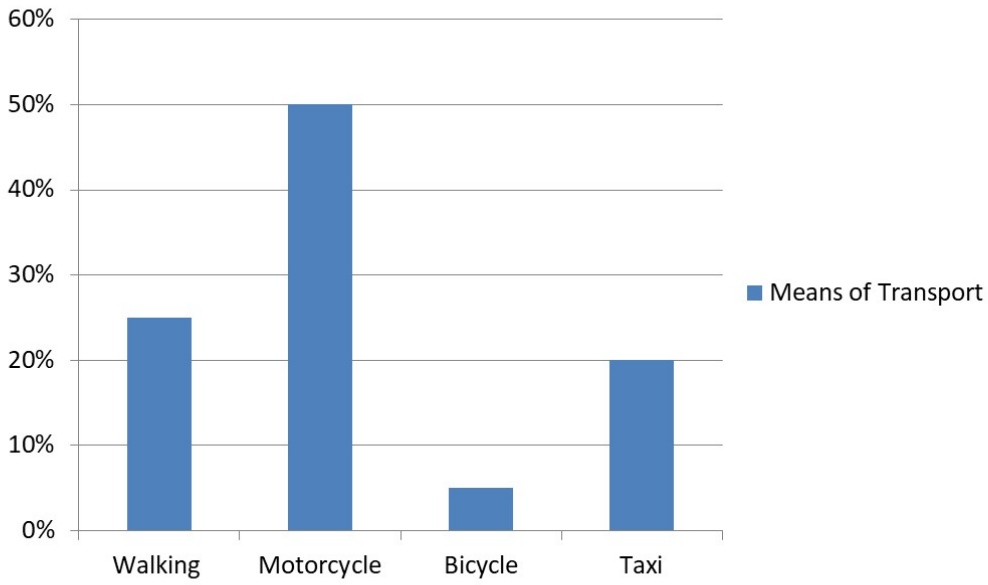

Figure 7. Shows the distribution of respondents according to the means of transport that they used to get to the health facility. N=50

Table 9. Shows the distribution of respondents on why the health workers were uncooperative. N=50

Reasons	Frequency (f)	Percentage (%)
They are rude	02	04
They don't give attention	03	06
They take a lot of time to work on you	37	74
Others	08	16
Total	**50**	**100**

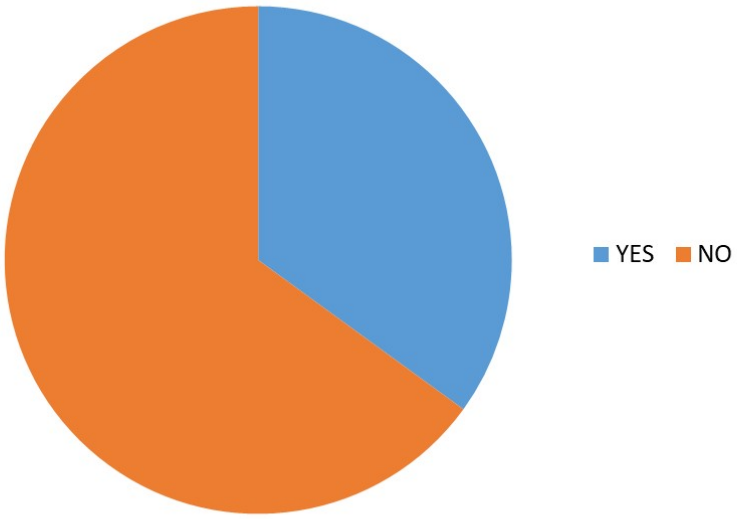

Figure 8. Shows the distribution of respondents on whether the health workers were cooperative. N=50

Table 10. Shows the distribution of respondents according to the time taken to see the doctor at the health facility. N=50

Time	Frequency (f)	Percentage (%)
45mins	09	18
1hr	05	10
2hrs	10	20
Over 2hrs	26	52
Total	**50**	**100**

5 Discussion, conclusions and recommendations.

6 Discussion:

Maternal factors contributing to increased use of herbal medicine among pregnant women aged 18-45 years.

The study findings revealed that the majority (70%) of the respondents had ever received antenatal care services. According to the researcher, there's still a gap because 30% of pregnant women were not attending antenatal care. This can lead to increased use of herbal medicine.

The study findings revealed that all (100%) of the respondents had ever heard of herbal medicine. According to the researcher, this may promote the use of herbal medicine. This is in line with results from a study by Laelago *et al.* (2016), which concluded that 92.1% of the respondents had heard about herbal medicine from different sources.

The majority (70%) of the respondents obtained information about herbal medicine from their relatives. According to the researcher, their relatives were the nearest source of information and therefore this made it easy for them to inquire more about the herbal medicines used during pregnancy. The study findings revealed that most (40%) of the respondents commonly faced the complication of nausea and vomiting. The experience of nausea and vomiting and other pregnancy-related complications may have prompted the pregnant women to use herbal medicine.

The study results indicated that the majority (76%) of the respondents used an herbal medicine

during the first trimester. According to the researcher, the first trimester is associated with hormonal changes leading to conditions like nausea and vomiting which promote the use of herbal medicine. This is in line with results from a study by Bayisa *et al* (2014) where results showed that the majority (70%) of the pregnant women used herbs during the first trimester.

The study findings revealed that the majority (72%) of the respondents commonly used ginger during pregnancy. According to the researcher, most pregnant women commonly used ginger mostly because it helped in masking the sensation and hence stopping nausea and vomiting which they commonly experienced. This is not in line with results from a study by Laelago *et al* (2016) where results showed that more than half (55.8%) of the respondents used ginger.

Socio-Economic factors contributing to increased use of herbal medicines among pregnant women aged 18-45 years.

Concerning the availability of herbal medicines, all (100%) respondents said that herbal medicines were readily available and accessible as compared to conventional medicine and therefore this encouraged them to continue using herbal medicine.

The study results showed that more than half (54%) of the respondents obtained herbal medicines from the garden. According to the researcher, this is because most pregnant women had cultivated the herbs. This is not in line with results from a study by Laelago *et al.* (2016) that showed that most (49.2%) of the respondents obtained herbal medicines from family members.

The study findings showed that most (60%) of the respondents were encouraged by their culture and religion to use herbal medicines during pregnancy. According to the researcher, the beliefs that were told them about herbal medicines being more efficacious in pregnancy than conventional medicine may have contributed to the increased use of herbal medicine. This is in line with results from a study by Nabirye *et al.* (2021) that revealed that most (68%) of the respondents used herbal medicines during pregnancy. This because of the various cultural beliefs that are disseminated within families and social support systems.

The study results revealed that more than half (56%) of the respondents used a herbal medicine during pregnancy because they were readily available. According to the researcher, most herbal medicines were easily obtained and were available in large volumes. The study findings also revealed that 60% of their spouses did not have time to escort their pregnant women to the health facility for the antenatal care services. According to the researcher, this may have promoted the use of herbal medicine to avoid going alone to the health facility.

Health facility factors contributing to increased use of herbal medicine among pregnant women aged 18-45 years.

The results from the study indicated that most (40%) of the respondents had their homes more than 10 km away from the health facility. According to the researcher, the long distance between their homes and the health facility encouraged continued use of herbal medicine because most pregnant women did not want to move the long distances in search of antenatal care services but instead preferred to use herbal medicine which was easily accessible. The study findings indicated that the majority (74%) of the respondents reputed that the health workers took a lot of time to work on them. According to the researcher, this may discourage them from coming back for antenatal care visits. workers took a lot of time to work on the respondents. The study results also showed that more than half (52%) of the respondents took over 2 hours to be seen by a doctor.

7 Conclusions

From the study, the researcher has drawn the following conclusions.

Maternal factors contributing to increased use of herbal medicine included being informed about herbal medicines by their family members as the majority (70%) of the respondents obtained the information from their family members, the marketplace places, and those women who used herbal medicines during their pregnancies.

Socio economic factors contributing to the increased use of herbal medicine included the fact that herbal medicines were readily available as more than half (54%) of the respondents obtained the herbal medicine from their gardens and were encouraged by their culture and religion (60%) to use herbal medicine during pregnancy.

Health facility factors contributing to increased use of herbal medicine included long distances to the health facility as 40% of the respondents had

their homes located above 10km from the health facility, high transport costs to the health facility as 38% of the respondents incurred those costs and long waiting time as the majority (74%) of the respondents were discouraged by the long waiting ques.

Recommendations

The Ministry of Health should put up more health facilities to reduce the distance moved by pregnant women while looking for antenatal care services.

Buwambo health center IV should intensify health education the pregnant women on the importance of antenatal care services and the implications of the use of herbal medicine during pregnancy.

Pregnant women should take full responsibility for their lives and avoid using herbal medicines that can easily put their lives at risk of acquiring complications.

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