INTRODUCTION

Herbal medicines are defined as plant-derived material or preparations perceived to have therapeutic benefits; they often contain raw or processed ingredients from one or more plants[1]. Herbal medicines include herbs, herbal materials, herbal preparations, and finished herbal products that contain parts of plants or other plant materials as active ingredients[2].

Plants have been used for medicinal purposes for thousands of years. Americans reported their top reasons for using herbs and supplements as enhancing health, and helping with common chronic symptoms or diseases such as memory loss, arthritis, and fatigue. In this way, herbs are similar to other complementary and alternative medicines in that they are frequently used for chronic conditions for which conventional medicine does not offer straightforward answers or cures. Herbs are also appealing to those who perceive nature as benevolent and healing. Associated with this is the mistaken perception that a naturally-derived product is always safe.

In developing countries, herbal medicines are often less expensive and more accessible than conventional pharmaceuticals. The World Health Organization (WHO) developed a Traditional Medicine Strategy "to promote the integration of traditional medicine and complementary and alternative medicine (CAM) into national health care systems where appropriate".

Herbal medicines are used in pregnancy although there is very little real evidence of safety[3]. Few animal or human studies have been conducted on the safety of herbal medicines in pregnancy or while nursing. Given the current paucity of data for these populations as well as the uncertainty in product quality, women who are pregnant, contemplating pregnancy, or lactating should generally be discouraged from using herbal treatments. The incidence of use by expectant mothers is unconfirmed and has been quoted as varying between 7.0% to 55.0%[4].

In many communities including developed countries, midwives are showing a renewed interest in the use of herbal and alternative medicine[5]. In the African context, herbal medicine in pregnancy and labor continues to play, as it did in the past, an important role in health systems. Western oriented medicine and health systems, introduced during the colonial era, did not completely eliminate well established systems of traditional medicine practice and many Africans learnt to use both health systems in parallel depending on the availability of medicine and/or the nature of the illness[6].

Herbal remedies are considered natural alternatives to certain drugs, but they can also be dangerous when taken during pregnancy. Herbs may contain chemicals that can cross the placenta and some can cause premature contractions.

Many herbalists believe that herbs are often better, cheaper, and healthier than their medical counterparts. However, many medical professionals do not recommend herbal remedies for pregnant women, since safety has not been established through extensive research. Unlike prescription drugs, herbal medicines do not go through the same scrutiny and evaluation process by the FDA. As a result, the quality and strength of herbal medicines can vary between two batches of the same product and between products from different manufacturers. Consumers have little way of knowing if a product will do what the label claims and how safe the product may be. Reliable information about the product may be hard to find, which makes researching these products' effectiveness more challenging.

Although herbs are natural, not all herbs are safe to take during pregnancy. The FDA urges pregnant women not to take any herbal products without consulting their midwifes or doctors first. Women are also urged to consult a trained and experienced herbalist (or other professional who is trained to work with herbs) if they want to take herbs during their pregnancies. Some herbal products may contain agents that are contraindicated in pregnancy.

Herbs may contain substances that can cause miscarriage, premature birth, uterine contractions, or injury to the fetus. Few studies have been done to measure the effects of various herbs on pregnant women or a developing fetus[2].

Not many countries have national policies for traditional medicine. Regulating traditional medicine products, practices and practitioners is difficult due to variations in definitions and categorizations of traditional medicine therapies. A single herbal product could be defined as either a food, a dietary supplement or an herbal medicine, depending on the country. This disparity in regulations at the national level has implications for international access and distribution of products.

WHO and its Member States cooperate to promote the use of traditional medicine for health care. The collaboration aims to: support and integrate traditional medicine into national health systems in combination with national policy and regulation for products, practices and providers to ensure safety and quality; ensure the use of safe, effective and quality products and practices, based on available evidence; acknowledge traditional medicine as part of primary health care, to increase access to care and preserve knowledge and resources; and ensure patient safety by upgrading the skills and knowledge of traditional medicine providers[1].

In Tanzania, the government has incorporated traditional healers and birth attendants into the national health care delivery programme. Their activities have to be legitimized and rationalised by establishing policy guidelines and strategies. Training is necessary to improve their skills. Plants and herbal materials, used in traditional medicine will continued to be researched at the University to prove their safety and efficacy for specified symptoms and

diseases. In future effective safe herbal medicines may be put into modern pharmaceutical dosage forms with the support of the local pharmaceutical industries. It has also been suggested to establish gardens with useful medicinal plants in each ward or district to improve on their availability and use.

There is an institute of traditional medicine (herbal medicines inclusive) which is a constituent of Muhimbili University of Health and Allied Sciences. The role of this institute is to impart knowledge to trainees in research and development of improved drugs from traditional medicines and generating graduates with adequate knowledge for the evaluation, standardization and formulation of traditional medicines. Many studies have been done on the use of herbal medicine in the general population; however very few studies have been done regarding the use of herbal medicine during pregnancy in the country (personal communication with the Institute Acting Director).

LITERATURE REVIEW

Herbal medicines may be used during pregnancy to treat pregnancy symptoms like nausea and vomiting. They may also be used to prepare for labor or for other unrelated health issues such as colds and respiratory illnesses or skin problems to mention a few examples [7,8,910].

Reasons reported for ceasing herbal medicine during pregnancy include concerns for the health of the fetus/baby, the 'condition' improving, the herbal medicine not helping and advice from a health care provider[8,10,11].

A survey among 400 Norwegian women at Ulleval University Hospital in Oslo in 2004 on the use of herbal drugs in pregnancy found that 36% of pregnant women had used herbal drugs during pregnancy[9]. Among the women having used herbal drugs in pregnancy, 39% had used herbal drugs that were considered harmful or herbs where there was paucity of information about safety in pregnancy.

In South Africa the use of herbal medicines by women in reproductive age group is common. These herbal medicines are used for abortion, breast cancer, contraception, conception, irregular or even in painful menstruation[12]. In pregnancy herbs are normally used orally on a regular basis as a tonic to clean the womb to attain an easy and quick delivery and in order to protect the child from evil and to have a healthy child[13,14].

A plant called *Rhoicissus tridentata* is one of the ingredients of a decoction Zulu women drink in pregnancy. This plant has uterotonic effect (stimulating the uterine muscles to contract)[13].
Herbal medicines used during labor lead to strong, continuous contractions not corresponding to the slow dilatation of the cervix. As a result this cause acidosis in the body of the mother followed by fetal distress and may need intervention by caesarean section or vacuum extraction.

Occasionally staffs observe uterus rupture or even death at times[15].

Several other studies have also found herbal medicine use in pregnancy to be associated with congenital malformations, intrauterine growth restriction, decreased fetal survival rates, low birth weight, fetal distress, fetal hypoxia and premature delivery as a result of uterine hyper stimulation which may lead to perinatal mortality[16-21]. The health impact of herbal medicine is highly dependent on amount, concentration and gestation age[13]. These herbs may contain chemical compounds which may be teratogenic[22]. Exposure of the embryo to teratogens during the first trimester of pregnancy may cause congenital anomalies because this is a critical moment for organ development[23].

A local herb,*Andrographispaniculata* (Hempedu bumi) given orally to rats during early pregnancy caused teratogenic effects leading to major congenital malformations[18].

Other factors underlying the use of herbal medicine have been identified as social pressure, dissatisfaction with the behavior of clinic staff, reluctance of clinic staffs to give drugs and lack of privacy within the conventional clinic environment[24].

The decision to use traditional medicine is most commonly made by grandmothers or mothers. Where mothers-in-law are involved, refusal is often very difficult as it would show disrespect[15].

It is estimated that 60% of South African women use herbal medicine during pregnancy.

A survey of 577 pregnant women attending their first antenatal visit at King Edward VIII hospital in Durban, South Africa, in 1995 revealed widespread use of herbal medication. Of these women, 60% had secondary or tertiary education and 43.7% were currently taking

medicinal herbs. The two common sources of knowledge about these medicines were parents / relatives (69.8%) and traditional birth attendants / herbalists (22.6%)[24].

Twenty nine percent of non-users indicated that they had been advised by doctors not to take herbs. About 55.6% of mothers using herbal medicines had meconium staining of amniotic fluid, an indication of fetal distress[21]. In another study it was reported that uterine hyper stimulation occurred at 39 weeks of gestation when a mother took black cohosh to "induce labor". The infant suffered from fetal distress and thick meconium aspiration[25]. Meconium stained amniotic fluid is associated with perinatal asphyxia and meconium aspiration Syndrome (MAS). Meconium aspiration is one of the most common causes of perinatal Mortality[26].

A prospective study on the use of oral herbal medicine was conducted on 214 pregnant women attending antenatal clinics in urban and rural Tanga district in Tanzania. The overall prevalence rate of use of herbal medicine was 42%. The prevalence in urban and rural areas was 43.3% and 40.2% respectively. The highest use rate was towards the end of the 1st trimester and during labor (87.7%). However herbal effects range from therapeutic to dangerous effects. Of the users, 54% did so to relieve pregnancy-associated symptoms, while the rest used it as a consequence of beliefs, possibly superstitious, circumstantial constraints, and combinations of these[27].

PROBLEM STATEMENT

More than 94% of women in Tanzania use antenatal care services and 47% deliver in health Facilities[28].

During my three years of practice at Mbeya Referral Hospital I observed that several pregnant women who came to hospital for delivery admitted to have taken herbal medicines before admission. As a result of taking herbal medicine some came late because they expected to deliver at home. Some came with obstructed labor, fetal distress and therefore they ended with caesarean section and low score babies.

It was also common for many bad fetal outcomes in labor ward to be attributed to herbal medicine taken during pregnancy. This resulted into other factors that could contribute to poor maternal and fetal outcome to be overlooked because this assumption led to relaxation among health care providers when poor maternal and fetal outcome occured (Personal observation at MRH).

No study had been done in Mbeya region to determine the magnitude of herbal medicine use during pregnancy and the factors associated to it, therefore there was a need to find out the magnitude of this problem.

RATIONALE OF THE STUDY

In developing countries the quality of health provision remains poor. With poor health facilities and poor emergency obstetric care, the maternal and fetal mortality and morbidity have remained high.

Some of the factors contributing to high maternal and fetal mortality and morbidity can be minimized just by health education. This can only be achieved when these factors are well studied. The use of herbal medicine during pregnancy may be among the contributing factors to maternal and fetal morbidity and mortality.

Only few studies have been done in our country regarding the use of herbal medicine during pregnancy and labor.

Twenty seven years have elapsed since when a similar study was done by Mbura et al, and many factors present at that time might have changed, also the population in Tanga and Mbeya may differ culturally due to geographical differences.

This study aimed at finding the magnitude at which herbal medicines are used during pregnancy and their associated factors. Results obtained will be used in health education delivery in antenatal clinics, enlighten the health providers about the magnitude so that they don’t attribute all poor fetal outcomes to herbs and therefore improve obstetric care. It will also be used as the baseline for more researches regarding use of herbal medicines in pregnancy.

OBJECTIVES

BROAD OBJECTIVE:

To assess the prevalence of herbal medicines use and associated factors among pregnant women attending ANC at Mbeya Referral Hospital.

Specific Objectives

1.To determine the proportion of women who used herbal medicines during the immediate past pregnancy.

2.To determine the factors associated with the use of herbal medicine during pregnancy.

3.To determine the source of advice on the use of herbal medicines during pregnancy.

4.To determine the reasons / indications for using herbal medicines during pregnancy.

OPERATIONAL DEFINITIONS

Traditional medicine is defined as:

the health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral-based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being.

Herbal medicines are defined as plant-derived materials or preparations perceived to have therapeutic benefits; they often contain raw or processed ingredients from one or more plants. Herbal medicines include herbs, herbal materials, herbal preparations, and finished herbal products that contain parts of plants or other plant materials as active ingredients[2].

In this study, mothers will be considered as herbal medicines users if they take the herbal medicines through oral, intravaginal or topical routes. Other preparations that are consumed as nutriments and within routine meal preparation such as food additives will be excluded.

METHODOLOGY

Study Design

Cross sectional study.

Study Setting

The study was conducted at Mbeya Referral hospital. This is a tertiary, consultant hospital located in Mbeya, Tanzania. It provides medical services to a population of more than two million residents. The hospital receives referrals from nearby Municipal health facilities, district hospitals in Mbeya region and regional hospitals in three Southern Highland regions (Ruvuma, Iringa and Rukwa). The average number of pregnant women attending antenatal clinic at Mbeya Referral Hospital is twenty five (25) women per day. The average of sixteen (16) women met the inclusion criteria and were recruited daily. There is a specialized maternity hospital called Meta and is part of the MRH being located about three kilometers from the main hospital. At Meta maternity hospital there is a section dealing with reproductive health and pregnant women without problems are attended here by trained nurses. Pregnant women found to have risks receive antenatal services and are then sent to see doctors in another wing for thorough evaluation and management. Clients were enrolled at the reproductive health unit where they are usually attended by the trained nurses.

Study Population

All pregnant women who attended antenatal clinic at Mbeya referral hospital from 30th August 2010 to 1st October 2010.

Study Sample

This consisted of pregnant women who were gravida two or above attending MRH antenatal

clinic and accepted to participate in the study.

Sample size estimation

The sample size was calculated from the formula

$n = Z^2PQ/\varepsilon^2$

Where **n** = minimum sample size

Z = Standard Normal deviation usually set at 1.96 which corresponds to 95% confidence Interval.

P = Prevalence of herbal medicines use during pregnancy which in this case was noted to be 42%

Q =**1-P**

ε = Marginal error estimated to be 5%

Then **$n = 1.96^2 \times 0.42 (1-0.42) / 0.05^2 = 375$**

Exclusion criteria

Multigravid women who were critically sick.

Sampling technique & Data collection

Data were collected by the investigator and two research assistants who were nurse midwives. At Meta maternity hospital women coming for antenatal care services usually receive health education before proceeding with other services. The nurse midwife usually gives this education. This session was utilized in collaboration with the nurse midwife for introducing the study. Later on all the pregnant women were approached individually as they were in the queue to the rooms for receiving antenatal services. Those who were gravida two or above were introduced to the study in more details, and the purpose of the study was explained to them. Enrollment was done, those who consented were interviewed using structured Swahili version questionnaires.

All women who met the inclusion criteria were interviewed. Data collection was done from Monday to Friday, starting from eight thirty in the morning until afternoon when the clinic was over. The process went on until when the required number of four hundred women was reached. The study captured all women attending the antenatal clinic because at Meta the reproductive health unit provides multiple services and therefore women spent all their time here before going back home. The services include health education, vaccination, counseling and testing for HIV and provision of haematenics. The interviewers being three in number, ensured all women meeting the inclusion criteria were interviewed without keeping them waiting for so long. These women responded very positively and each was eager to participate in the study.

After answering all the required questions participants were given an opportunity to give more information regarding herbal medicines and ask questions. Information regarding the use of herbal medicines in the immediate past pregnancy was enquired. Studies have revealed that pregnant women may take herbal medicines at any time from the first trimester to the third trimester, and during labor. Therefore asking information regarding the immediate past

pregnancy ensured coverage of the whole duration of pregnancy.

The antenatal cards of the interviewed women were marked by a tick on the left top corner to avoid repetition.

The interviewers initially explained the working definition of herbal medicines to the mothers. In this study, the mothers were considered as herbal medicine users if they took herbal medicines through either oral, intravaginal or topical routes. Other preparations that were consumed as nutriments and within routine meal preparation such as food additives were excluded. Women were asked about the estimated distance to the nearest public health facility. The distance was categorized into three categories (below 5 kilometers, between 5 to 10 kilometers and above 10 kilometers). They mentioned the place of their residence, then they were helped to know on which category of distance they were falling by asking them how long it takes them to travel, on foot or by bus and the money for bus fare used. Some women reported the distance from where they live to the nearest public health facility by comparing it to the distance between two points familiar to the interviewers. For example one could say, the distance is equal to the distance from point ‘a’ to point ‘c’. Then the distance was estimated to nearest kilometers by the interviewers. Interviewers had no difficulties in categorizing the distance because all have lived in Mbeya for many years and therefore were familiar with most localities mentioned. All women were also asked about the outcomes of their immediate past pregnancy.

Outcomes were categorized into four categories of; alive which meant the baby who lived beyond one month, neonatal death including all babies who were born alive and died within one month, stillbirth babies which were born without any sign of life from seven months gestation

age and above, and abortion which included all clinical pregnancies lost before seven months gestation age.

Data analysis

Data collected was entered into EpiData software and analyzed using the Statistical Package for Social Science (SPSS) version 13.`

The statistical association between use of herbal medicine in pregnancy and the estimated distance to the nearest health facility, education level and pregnancy outcomes of the immediate past pregnancy were determined by using Chi Square test; here the test statistic giving a P-value of 0.05 or less was considered significant. Other social demographic factors were described. Social demographic factors included age, parity and marital status.

Limitations

Some women seemed to fear admitting the use of herbal medicine in pregnancy. This is due to the fact that herbal medicines are very often perceived negatively by the health workers. To reduce this problem, emphasis that the study was not aiming at judging anybody but rather finding the magnitude at which herbal medicines are used during pregnancy and associated factors was made. They were told that the main objective was to improve maternal and fetal outcomes. After this explanation they freely answered the questions and shared their experience without any worry.

Another limitation was on the estimation of the distance to the nearest public health facility. Although it was categorized into nearest kilometers, the estimated distance may not be very

perfect. However it gives a picture of how far or close the interviewed women lived from the public health facility and therefore this shows how distance can influence the use of herbal medicine during pregnancy.

It was a bit difficult to put a clear boundary between traditional medicines and herbal medicines as herbal medicines are part of traditional medicines. Emphasis was put on plant derived medicines and excluded spiritual therapies and other mineral and animal based medicines.

Language barrier was not a problem.

This study being a cross sectional study could only show associations and not causality.

Ethical consideration

The study was approved by the MUHAS Ethical committee and permission to conduct the study at MRH was obtained from the MRH Executive Director.

Data collection did not in any way interfere with service provision. Individual informed consent was sought and confidentiality guaranteed. No participant's name was filled in the questionnaires. Only one woman did not consent to participate in the study and was not enrolled. Women who had poor outcome in the immediate past pregnancy were counseled accordingly (i.e. if they had poor fetal outcome, they were linked with the doctors at MRH for more evaluation, close monitoring and counseling to ensure good outcome in the current pregnancy).

RESULTS

A total of five hundred and ninety (590) pregnant women attended antenatal clinic at Mbeya Referral Hospital during the study period. One hundred and eighty nine were primgravidas. Four hundred and one pregnant women were gravid two or above. They were approached to participate in the study and four hundred accepted.

Fifty five percent (55.0%) of pregnant women attending ANC at MRH used herbal medicines during the immediate past pregnancy. Forty nine percent (49.5%) used one type and 41.4% used two types of herbal medicines. About thirty eight percent (37.7%) of those who used herbal medicines, used twice throughout pregnancy, mainly during labor and the third trimester. The routes of administration were oral, topical and intravaginal at 100%, 7.7% and 2.3% respectively.

Seventy percent (70.3%) of all the interviewed women were aware that herbal medicines may have bad effects in pregnancy and only 25.8% said that they will recommend to other women to use them during pregnancy. However forty six percent (45.9%) of those who used herbal medicine in their immediate past pregnancy said they will use herbs in their index and future pregnancy. Adverse effects of herbal medicines experienced by those who used were, excessive uterine contractions (84.3%), fetal distress (66.7%) and abortions (3.9%).

Table 1: Socio-demographic characteristics of women enrolled in the study (N=400)

Characteristic	Number	Percent
Age (Years)		
<20	7	1.8
20-30	266	66.5
31-40	122	30.5
>40	5	1.3
Marital Status		
Single	22	5.5
Married	357	89.3
Divorced/Separated	9	2.3
Widow	12	3.0
Parity		
1	139	34.8
2	121	30.3
3	76	19.0
≥4	64	16.2
Education level		
No formal education	30	7.5
Primary	250	62.5
Secondary	76	19.0
University/College	44	11.0

The median age of the participants was 28 years with a range of 19-46 years, majority being married (89.3%). Thirty five percent of the women in the study population were para,1 with only 16.2% having delivered four or more times in their lifetime. The median parity was 2. Majority had primary education (62.5%) with 7.5% having no formal education and illiterate.

Table 2: Use of herbal medicine during pregnancy and associated factors (N=400)

Associated factor	Use herbal medicine	No use of herbal medicine	Total	P-value
Distance (Km)				
<5	67(39.2%)	104(60.8%)	171(100%)	
5-10	90(58.4%)	64(41.6%)	154(100%)	
>10	63(84.0%)	12(16%)	75(100%)	<0.001
Education level				
No formal education	28(93.3%)	2(6.7%)	30(100%)	
Primary	146(58.4%)	104(41.6%)	250(100%	
Secondary	33(43.4%)	43(56.6%)	76(100%)	
University/College	13(29.5%)	31(70.5%)	44(100%)	<0.001
Outcome				
Alive	153(47.4%)	170(52.6%)	323(100%)	
Neonatal death	36(90.0%)	4(10.0%)	40(100%)	
Stillbirth	26(81.3%)	6(18.8%)	32(100%)	
Abortion	5(100.0%)	0(0.0%)	5(100%)	<0.001

The use of herbal medicines during pregnancy was associated with long distance to the nearest public health facility, low education level and poor pregnancy outcome.

Table 3: Use of herbal medicine during pregnancy and associated factors by Forward Binary Logistic regression model

Parameter	Wald	p-value	Estimated OR	95% CI for Estimated OR	
				Lower	Upper
Distance	38.431	0.000	8.149	4.090	16.239
Education level	10.586	0.014	0.079	0.015	0.423
Pregnancy outcome	0.000	0.999	2E+009	0.000	.

The analysis on association was further done using Forward Binary Logistic regression model. Distance to the nearest public health facility, and education level were found to be independent predictors of herbal medicine use during pregnancy (p-value was less than 0.05).

Table 4: The use of herbal medicines and related factors (N=220)

Characteristic	Frequency	%
Adviser		
My own decision	26	11.8
Parents/Relatives	154	70.0
TBA	22	10.0
Herbalist	18	8.2
Reason for using herbs		
Herbal medicines are easily accessible	67	30.5
Modern medicines alone are not sufficient	141	64.1
Was given without my awareness	12	5.5
Indication		
To induce labor	111	50.5
To augment labor	26	11.8
To protect the baby	82	37.3
To induce abortion	1	0.5
Reason for not using herbs		
Fear of complications to the baby	98	54.4
Religious belief	63	35.0
Not aware of their use in pregnancy	19	10.6
Stage of pregnancy		
First trimester	15	6.8%
Second trimester	16	7.3%
Third trimester	86	39.1%
During labor	199	90.5%
Possible complications		
Abortion	145	51.6%
Excessive uterine contraction	245	87.2%
Uterine rupture	74	26.3%
Fetal distress	276	98.2%
Stillbirth	250	89.0%

Parents and relatives were the most frequent advisers on the use of herbal medicines during

pregnancy. Of the users, 64.1% did so because they believe that modern medicines alone are not sufficient to solve all their health problems in pregnancy. Induction of labor was the most common indication for the use of herbal medicines. Fear of complications to the baby was the most common reason for not using herbal medicines. Herbal medicines are mostly used during labor and during the third trimester.

Fetal distress, stillbirth and excessive uterine contraction were the most common possible complications of herbal medicine which were perceived by pregnant women. This question had multiple responses.

DISCUSSION

The prevalence of herbal medicines use during pregnancy among women attending antenatal clinic at Mbeya Referral Hospital was 55.0%. My finding is similar to that in South Africa where 55.0% of women used herbal medicines during pregnancy[21]. In their study, mothers who presented in early labour were randomly selected and interviewed. Another study in South Africa found that about 60.0% of women used traditional medicine during pregnancy[24].Traditional medicine is more than herbal medicines.

However it is higher than the findings in Tanga about 27 years ago in which prevalence in urban and rural areas were 43.3% and 40.2% respectively. In their study pregnant women at different gestation age were asked about the use of herbal medicine in their index pregnancy and during labor in their previous pregnancy using a structured Swahili questionnaire. Apart from other factors this increment may be attributed to the rapid increase in promotion of traditional medicine in the society and the media. It is very common to see posters advertising traditional medicines and herbalists.

My finding is also higher compared to those reported in USA where they found that about 45.2% of women from rural outreach clinics and the Physicians Office Center of West Virginia University, Morgantown used at least one type of herbal medicine during pregnancy. In that study, obstetric patients were asked open- ended questions to assess whether they used any herbal medicines during pregnancy, followed by showing several indications for use and a list of common local herbal medicines used during pregnancy to help mothers recall. They included herbal products that were used solely for medicinal purposes and excluded those consumed as

nutriments. However, the researchers did not document the route of administration of herbal medicines[25]. The routes of administration in my study were oral, topical and intravaginal.

About 12.0% of women attending the antenatal clinic in an Australian district hospital used herbal medicines. However, the researchers did not mention how they defined the herbal medicines users in their study. They questioned mothers who presented at the clinic for the first booking at 16 to 24 weeks of pregnancy[3].

It is well known that traditional medicines, particularly herbal medicines, are commonly used in less developed countries and developing countries. However, the above studies revealed that the use of herbal medicines is also common in developed countries. There are several reasons why communities in developed countries are showing interest in the use of herbal medicines. In developed countries, the safety and efficacy of some herbs is well documented. Besides that, in developed countries, there is widespread promotion of herbs in the media as natural and safe. In addition, there is growing awareness on the side effects of modern medicines because modern medicines are well-researched[2].

The use of herbal medicine during pregnancy was found to be associated with long distance to the nearest health facility. This study found significant association between the use of herbal medicine during pregnancy and the distance to the nearest health facility. Women staying within the proximity of five kilometers to the nearest health facility were less likely to use herbal medicines during pregnancy. More than half of the studied women stayed more than five kilometers from the nearest public health facility. The Tanzanian government’s policy is to

ensure that every citizen does not walk more than five kilometers to reach the health facility. This aims at improving accessibility of health services. However the challenge may be on equipping these facilities with adequate qualified staffs and instruments.

This study found very significant association between the use of herbal medicine and education level. The number of women using herbal medicines declined with increasing level of education. Although there are many other factors influencing the use of herbal medicines during pregnancy, educating people helps them to analyze things and make correct decisions. One study conducted in Tanzania found that the difference between the proportion of users with no education and that with education to be very slight. Nevertheless the general trend was decreased usage with increasing education. Only three categories of education level were used (no education, adult education and primary education), this can be explained by the low level of education at that time (twenty seven years ago). It was also suggested that education may matter in questioning the wisdom of certain aspects of traditional medicine but whether that applied at the level of primary education was debatable. However even if all women are educated and other factors are dealt accordingly, herbal medicines usage during pregnancy won't end as proven by developed countries. Nevertheless educated women will make relevant consultation before using hence reducing the possible complications.

There were more poor pregnancy outcomes among herbal medicine users. However the difference was not statistically significant when multivariate analysis was used. One study in Nigeria found that, there were medical differences in the obstetric outcomes between the two groups. These differences were also not statistically significant enough to justify the wholesale condemnation of traditional medicine in modern obstetrics. Other studies have not documented whether the difference in poor pregnancy outcomes are statistically significant or not. Delay in seeking hospital care was the major factor in the poorer outcome for the users' group[31].

Parents and relatives were the most frequent advisers on the use of herbal medicines during pregnancy in this study. This finding is similar to other studies which found that older family members like parents and parents in law were the most common persons who recommended the use of herbal medicines during pregnancy[22]. Also another qualitative study demonstrated a considerable influence of the older generation like grandmothers, mothers and mothers in law to Tswana mothers in South Africa to take herbal medicine[15]. Besides parents and in laws, mothers in study reported that the use of herbal medicines during pregnancy was also often suggested by other family members, relatives (husbands and siblings) and friends[22]. Majority of mothers in another study reported that the use of herbal medicine was often suggested by a relative or friend[29]. My study revealed that some of the mothers reported that traditional birth attendants and herbalists were the persons who suggested the use herbal medicines and only 11.8% of the women used herbal medicine without any external pressure. In another study 10.2% of mothers reported that traditional midwives were the persons who suggested to them to use herbal medicines[22].

Where mothers-in-law are involved, refusal is often very difficult as it would show disrespect[15]. Interestingly **5.5%** of women who used herbal medicine were given without their awareness, in a form of mixture with tea. They were told either after delivery or during labor when labor pains were so intense. Some of them were given herbal medicine while admitted in antenatal or labor wards. Herbal medicine use right in the hospital labor wards was observed in Tanzania, sometimes with such disastrous outcome as ruptured uterus[27]. Therefore any intervention to reduce the use of herbal medicine during pregnancy must involve these people with great influence to the pregnant women.

Of the users, majority did so because they believed that modern medicine alone is not sufficient to solve all their health problems in pregnancy. Majority of them understood the importance of modern medicines but they knew that they couldn't solve superstitious problems and hence they used both modern and herbal medicines. In this study about two thirds of the women who used herbal medicines during their immediate past pregnancy, delivered in health facilities. This is similar to other studies where it was found that in the African context, herbal medicine in pregnancy and labor continues to play, as it did in the past, an important role in health systems. Western oriented medicine and health systems, introduced during the colonial era, did not completely eliminate well established systems of traditional medicine practice and many Africans learnt to use both health systems in parallel depending on the availability of medicine and/or the nature of the illness.

Induction of labor was the most common purpose for the use of herbal medicines, followed by the belief to protect the baby against witchcraft. In another study herbal medicines were used for certain indications such as to facilitate labor, relieve muscle and body ache, space pregnancies, promote baby's physical health and intelligence, enhance sexual pleasure, prevent retained placenta and abortion purposes. He found that the most common indication for using herbal medicines during pregnancy was to facilitate labor[22]. Herbal medicine was also believed to turn a breech baby, thus preventing unnecessary operations[15].

Fear of complications to the baby and religious belief were the most common reasons for not using herbal medicines during pregnancy among non users. These had been counseled by their friends and health workers during antenatal clinic visits. This is a very important finding because it shows targets to be considered when planning interventions to reduce the prevalence.

The majority of mothers in this study took herbal medicines during labor and the third trimester. Only a small percent of women took herbs during the first trimester. Another study found that majority of mothers in their study took herbal medicines during the third trimester too, mainly to facilitate labor. About 4.6% of mothers were exposed to herbal medicines during the first trimester only. Mothers who were exposed to herbal medicines during the first trimester were those who usually consumed herbal medicines before pregnancy but because of the unplanned pregnancy, they continued taking herbal medicines during pregnancy without realizing that they were pregnant. By the time they stopped taking herbal medicines, they have already been pregnant for several weeks[22]. One study found a bit different results whereby majority used herbal medicine during the first trimester particularly towards the end and during labor. This finding is partly explained by the fact that they focused on the index pregnancy and labor of the previous pregnancy. Therefore there is a possibility that most of the study sample was in early pregnancy. The high usage rate in the first trimester might have been accounted for by nausea and vomiting which are common during this period on one hand and on the other, by the belief which was common in that area that pregnancy has to be protected against witches, sorcerers and malevolent spirits[27]. In South Africa, local herbal medicines were most commonly ingested in the third trimester of pregnancy to prevent and solve labor difficulties and stimulate a smooth delivery[15].

Taking herbal medicines during different trimesters of pregnancy may cause different effects. Exposure of fetus to herbal medicines during the first trimester may lead to congenital malformation, while taking herbal medicines during the second or third trimester may lead to fetotoxicity such as intrauterine growth retardation, fetal distress, fetal hypoxia

and intrauterine death[15]. Several studies found that herbal medicines taken to facilitate labor caused adverse fetal effects.

In addition, half of the women used only one type of herbal medicines throughout pregnancy. About one third of the mothers in this study used herbal medicines twice throughout pregnancy, mainly during labor and the third trimester. In another study majority of the women also used herbal medicines twice, during the first trimester and during labor[27]. In Malaysia majority of the mothers in their study used herbal medicines only once throughout pregnancy, mainly during the third trimester to facilitate labor[22].

Perception on the effectiveness of herbal medicines in solving or preventing problems will influence whether mothers might use them again in the next pregnancy. In my study less than half (45.9%) among those who used herbal medicine said they will use herbs in their index and future pregnancy. Adverse effects caused by herbal medicines were excessive uterine contractions, fetal distress and abortions. However in another study, the majority of mothers who used herbal medicines during pregnancy believed that herbal medicines were effective in preventing or solving their problems and indications[22]. Another study reported that majority of mothers felt that herbal medicines, were helpful self care during pregnancy. Nearly half of mothers still placed the importance of traditional antenatal care as being equal to the western antenatal care to ensure a successful course of pregnancy[13].

Recall bias was anticipated from the time of proposal development. It was not possible to eliminate it completely, however it was reduced by confining the enquiry to the immediate previous pregnancy. If all previous pregnancies were to be included then recall bias could be

worse. The immediate past pregnancy was enquired and not the index pregnancy because the whole duration of pregnancy had be to be taken into consideration.

CONCLUSION

The use of herbal medicines during pregnancy among women attending antenatal clinic at Mbeya Referral Hospital was associated with, low education level of pregnant women and long distance to the health facility. Majority of the users do so due to the influence of the older family members.

RECOMMENDATIONS

Health care professionals should routinely include herbal medicines category when asking about the patient's drug use. This will help to identify those who use herbal medicine and therefore take precautions. Mothers, their family members, friends and traditional birth attendants should be educated that alternative medicines particularly herbal medicines may be harmful to the fetus.

It is difficult to discard use of traditional medicine, particularly herbal medicines, because they have been using herbs and recommending use of herbs for many years, however there are

several alternative messages that can be given to them, such as consulting a doctor, before using any herbal medicines during pregnancy. The high prevalence of herbal medicine use found in this study, should alert the health workers that all women coming to labor ward with excessive uterine contractions should be thoroughly evaluated for the possibility of fetal distress and managed accordingly.

Finally research such as pharmacological study focusing on local commonly used herbal medicines is to be carried out to identify the exact pharmacological compounds of the herbs and to evaluate the effects of these compounds to the fetus.

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APPENDICES

Appendix 1- English version of consent form

Prevalence of herbal medicines use during pregnancy and associated factors among pregnant women attending antenatal clinic at Mbeya Referral Hospital in 2010.

Introduction

My name is Dr Mbwanji F. Godlove. I am a researcher from Muhimbili University of Health and Allied Sciences. I am conducting a research on the use of herbal medicine during pregnancy. The use of herbal medicine during pregnancy is common worldwide. The purpose of the study is to determine the prevalence of herbal medicine use and associated factors among pregnant women. The findings will help to put recommendations in order to improve maternal and fetal outcome.

How to participate in this study

You are asked to participate in this study because you are one among many women who may be using herbal medicine during pregnancy. If you are willing to participate in this study, you will be interviewed using a Swahili questionnaire. The interview will be conducted only once.

Confidentiality

Everything will remain confidential and will be used only for research purposes. The research team will compile a report that will contain information about all other interviewed pregnant women like you, without mentioning your name.

Risks

I do not expect that any harm will happen to you as a result of participating in the study.

Right to participate in the study

Taking part in this study is completely your choice. You have the right to participate or decide otherwise without giving any reason for your decision. Once you have decided to participate you are also free to terminate your participation at any time.

Benefits of participating in this study

If you agree to participate in this study you will help us find the magnitude of herbal medicine use in our community, and enable the hospital and the country in general to establish proper management plans.

Who to Contact

If you have any questions about this study you are free to contact, the principal investigator, Dr. Mbwanji F. Godlove (0754 425313).

If you ever have questions about your rights as a participant, you may call the Chairman of the college Research and Publications Committee, Box 65001, Dar es Salaam. Tell 2150302-6.

If you agree to this interview, please sign this consent form.

I …… have read and understood the contents of this consent form and my questions have been sufficiently answered. I therefore consent for the interview for this study.

Signature of the interviewee ……..... Date ……

Signature of the interviewer ……....……. Date ……

Appendix 2

Swahili version of consent form

Kiwango cha utumiaji dawa za mitishamba na sababu zake kwa wanawake wajawazito wanaohudhuria kliniki katika hospitali ya rufaa Meyer mwaka 2010.

Utangulizi

Jina langu ni Dk. Mbwanji F. Godlove. Mimi ni mtafiti kutoka chuo cha mafunzo ya afya cha Muhimbili. Ninafanya utafiti kuhusu matumizi ya dawa za mitishamba wakati wa ujauzito. Utumiaji wa dawa za mitishamba wakati wa ujauzito unafanyika kote duniani. Kusudi la utafiti huu ni kujua kiwango cha utumiaji dawa za mitishamba na sababu zake kwa wanawake wajawazito. Matokeo ya utafiti huu yatasaidia kutoa mapendekezo ili kuboresha afya ya mama na mtoto anyayezaliwa.

Jinsi ya kushiriki katika utafiti huu

Unaombwa kushiriki katika utafiti huu kwa sababu wewe ni mmoja kati ya wanawake wenye / walio na uwezekano wa kutumia dawa za mitishamba wakati wa ujauzito. Ukikubali kushiriki, utahojiwa kwa kutumia dodoso kwa lugha ya kiswahili mara moja tu.

Usiri

Kila kitu kitabakia kuwa siri na kitatumika kwa ajili ya utafiti tu. Timu inayohusika na utafiti itatumia majibu yote kuandaa ripoti itakayokuwa na habari za wanawake wengine watakaohojiwa pia , bila kutaja jina lako mahali popote.

Madhara

Sitegemei kutakuwa na kitu chochote kitakachotokea kwako kwa kushiriki katika utafiti huu,

Haki ya kushiriki

Ushiriki wako katika utafiti huu si lazima. Una uwezo wa kukubali au kukataa bila kutoa sababu zozote za kufanya hivyo. Na ukikubali, unaweza kubadili uamuzi wako ukijisikia kufanya hivyo wakati wowote.

Faida za kushiriki

Ukikubali kushiriki, utatusaidia kujua kiwango/ukubwa wa matumizi ya dawa za mitishamba wakati wa ujauzito katika jamii yetu, na kuwezesha hospitali na taifa kwa ujumla kuboresha huduma ya mama na mtoto.

Ukiwa na maswali yoyote kuhusu utafiti huu, uwe huru kuwasiliana nami, mtafiti mkuu, Dr Mbwanji F. Godlove (0754 425313)

Kama utakuwa na maswali kuhusu haki zako kama mshiriki, unaweza kuwasiliana na Mwenyekiti wa kamati ya utafiti ya chuo, S. L. P. 65001, Dar es Salaam. Simu 2150302-6.

Kama umekubali kuhojiwa, tafadhali saini hapa:

Mimi……., nimesoma na kuelewa kilichoelezwa kwenye fomu hii na maswali yangu yamejibiwa kiufasaha. Hivyo ninakubali kuhojiwa kwa ajili ya utafiti huu.

Sahihi ya mhojiwa …….. Tarehe ……..
Sahihi ya mhoji…… Tarehe……

Appendix 3

ENGLISH VERSION QUESTIONNAIRE

Prevalence of herbal medicines use during pregnancy and associated factors among pregnant women attending antenatal clinic at Meyer Referral Hospital in 2010.

Serial No. …….

Client's 1. Age. ……(years)

2. Parity ……..

3. Religion

A.Christian

B.Moslem

C.None

D.Others

4. Ocupation……

A. Peasant
B. House wife
C. Petty trader
D. Employed

5. Marital status

A. Single
B. Married
C. Divorced
D. Widow

6. Partner's occupation

A. Peasant
B. Employed
C. Businessman
D. Petty trader

7. Level of education

A. No formal education
B. Primary education
C. Secondary education
D. Post secondary education.

8.Do you know that some pregnant women use herbal medicines during pregnancy

A.Yes

B. No

If your answer is No; go to question 10

9. How did you know about the use of herbal medicines during pregnancy ? Through,

A. A friend

B. Mother / mother in law

C. TBA

D. Grandmother

E. Media

10. How far is the nearest public health facility

A. Less than 5 km

B. 5 km to 10 km

C. More than 10 km

11. Did you deliver in a health facility in the immediate previous pregnancy?

A. Yes

B. No

If no to 11 go to 14

12. Were you satisfied with the services you received?

A. Yes

B. No

13. If no to 12, why were you not satisfied?

A. Bad language

B. No drugs

C. Congestion of patients

D. Lack of privacy

14. Why didn't you deliver at a health facility

A. No bus fare

B. Nobody to escort me

C. Not satisfied with their services

15. Did you use herbal medicines during the previous pregnancy

A. Yes

B. No

If no to 15, go to 27

16. What were the reasons that made you use herbal medicines during pregnancy
    A. No fare to go to hospital
    B. Herbal medicines are better than modern medicines
    C. Modern medicines alone are not sufficient
    D. Herbal medicines are easily accessible
    E. Was given without my awareness

17.What was the purpose of using herbal medicines in pregnancy
    A. To induce labor
    B. To augment labor
    C. To protect the baby
    D. To induce abortion

18. Outcomes of previous pregnancy
    A. Alive
    B. Neonatal death
    C. Stillbirth
    D. Abortion

19. Who told you to use herbal medicines in pregnancy
    A. My own decision
    B. Parents / Relatives
    C. TBA
    D. Herbalist

20. At what gestation age did you use herbal medicines
    A. 1^{st} – 3^{rd} Month: Yes……
    No…….
    B. 4^{th} –6^{th} Month: Yes……..
    No……...
    C. 7^{th} – 9^{th} Month: Yes…….
    No……..
    D. During delivery : Yes…….
    No……..

21. How many types of the herbal medicines did you use during the previous pregnancy
    A: One
    B: Two
    C: Three
    D: More than three

22. How many times did you use herbal medicines during the previous pregnancy

A: Once
B: Twice
C: Thrice
D: More than three times

23. Through which route did you use herbal medicine during pregnancy

A. Oral : Yes……
No …….

B. Intravaginal : Yes……..
No……

C. Topical : Yes……..

24. Were you satisfied with the outcomes of using herbal medicines during pregnancy

A. Yes
B. No

25. If no to 24, why were you not satisfied

A. Got abortion 1. Yes 2. No
B. Uterine hyper stimulation 1. Yes 2. No
C. Fetal distress 1. Yes 2. No
D. Stillbirth 1. Yes 2. No
E. Uterine rupture 1. Yes 2. No

26. Will you use herbal medicines during pregnancy again?

A. Yes
B. No

27. If your answer is no in Q.15, why didn't you use herbal medicine in pregnancy

A. Fear of complications to the baby
B. Religious belief
C. Not aware of their use in pregnancy
D. Counseled by the health worker

28. Outcomes of previous pregnancy for **non users** of herbal medicines

A. Alive
B. Neonatal death
C. Stillbirth
D. Abortion

For all, users and non-users

29.Would you recommend herbal medicines to other pregnant women?

A.Yes

B. No

30. Do you know the effects / complications of these herbal medicines in pregnancy?

A.Yes

B. No

31. If yes to 30, what are some of the effects

A. Abortion 1. Yes, 2. No

B. Uterine hyper stimulation 1. Yes, 2. No

C. Uterine rupture 1. Yes, 2. No

D. Fetal distress 1. Yes, 2. No

E. Stillbirth 1. Yes, 2. No

Appendix 4

SWAHILI VERSION QUESTIONNAIRE

DODOSO

Kiwango cha utumiaji dawa za mitishamba na sababu zake kwa wanawake wajawazito wanaohudhuria kliniki katika hospitali ya rufaa Meyer mwaka 2010.

Namba ya dodoso…….

1. Umri (miaka)……

2. Umezaa mara ngapi……..

3. Dini yako ni
   A. Mkristo
   B. Muislamu
   C. Sina dini
   D. Nyinginezo

4. Kazi yako
   A. Mkulima
   B. Mama wa nyumbani
   C. Biashara ndogondogo
   D. Nimeajiriwa

5. Hali ya mahusiano
   A. Sijaolewa
   B. Nimeolewa
   C. Nimeachika
   D. Mjane

6. Kazi ya mwenzi wako
   A. Mkulima
   B. Ameajiriwa
   C. Mfanyabiashara
   D. Mfanyabiashara ndogondogo

7. Kiwango chako cha elimu
   A.Sijasoma
   B.Elimu ya msingi
   C.Elimu ya sekondari
   D.Elimu ya chuo.

8. Kuna watu hutumia dawa za mitishamba wakati wa ujauzito, je unajua kuhusu hilo ?

A. Ndiyo
B. Hapana

Kama jibu ni hapana nenda swali namba 10

9.Kama jibu ni ndiyo katika swali namba 8, ulijua kupitia njia gani

A. Kupitia rafiki
B. Kupitia mama / mama mkwe
C. Mkunga wa jadi
D. Bibi
E. Vyombo vya habari

10.Je kituo cha afya cha umma cha karibu, kiko umbali gani toka unakoishi

A. Chini ya kilometa 5
B. Kati ya kilometa 5 hadi 10.
C. Zaidi ya kilometa 10

11. Je katika ujauzito uliopita ulijifungulia katika kituo cha afya / hospitali?

A. Ndiyo
B. Hapana

Kama jibu ni hapana nenda swali namba 15

12. Kama jibu la swali namba 11 ni ndiyo, je uliridhika na huduma ulizopewa?

A. Ndiyo
B. Hapana

13. Kama jibu la swali namba 12 ni hapana, kwa nini hukuridhika?

A. Lugha mbaya toka kwa wahudumu
B. Hakukuwa na dawa
C. Msongamano mkubwa wa wagonjwa
D. Hakukuwa na faragha

14. Je kwa nini hukujifungulia katika kituo cha afya / hospitali

A. Sikuwa na nauli
B. Mtu wa kunipeleka hospitali hakuwepo
C. Siridhiki na huduma za hospitali

15. Je ulitumia madawa ya mitishamba katika ujauzito uliopita

A.Ndiyo
B.Hapana

Kama jibu ni hapana nenda swali namba 27

16. Je ni sababu ipi iliyokufanya utumie dawa za mitishamba wakati wa ujauzito.

A.Sikuwa na nauli ya kwenda hospitali
B.Dawa za mitishamba ni bora kuliko za hospitali
C.Dawa za hospitali pekee hazikidhi haja
D.Dawa za mitishamba zinapatikana kwa urahisi
E. Nilipewa bila kujua kama ni dawa za mitishamba

17. Lengo la kutumia dawa za mitishamba lilikuwa

A.Kuanzisha uchungu
B.Kuongeza uchungu
C.Kumlinda mtoto dhidi ya wachawi
D.Kutoa mimba

18. Matokeo ya ujauzito uliopita

A.Mtoto hai
B.Mtoto alifariki ndani ya mwezi wa kwanza
C.Mtoto mfu
D.Mimba ilitoka.

19. Nani alikueleza utumie dawa za mitishamba wakati wa ujauzito

A.Ni uamuzi wangu mwenyewe
B.Wazazi/ndugu
C.Mkunga wa jadi
D.Mtaalamu wa mitishamba

20.Ulitumia dawa za mitishamba katika umri gani wa mimba

A.Mwezi wa kwanza hadi wa tatu: Ndiyo……..
Hapana……
B.Mwezi wa nne hadi wa sita : Ndiyo……...
Hapana…….
C.Mwezi wa saba hadi wa tisa: Ndiyo……...
Hapana…….
D.Wakati wa kujifungua: Ndiyo……
Hapana…….

21.Ulitumia dawa za mitishamba aina ngapi wakati wa ujauzito uliopita

A.Aina moja
B. Aina mbili
C. Aina tatu
D. Zaidi ya aina tatu

22.Ulitumia dawa za mitishamba mara ngapi wakati wa ujauzito uliopita

A.Mara moja
B. Mara mbili
C. Mara tatu
D. Zaidi ya mara tatu

23. Je ulitumia dawa za mitishamba kupitia njia ipi wakati wa ujauzito uliopita

A.Kupitia kinywa : 1. Ndiyo, 2.Hapana
B.Kupitia ukeni : 1.Ndiyo, 2.Hapana
C.Kujipaka katika ngozi: 1.Ndiyo, 2. Hapana

24. Je uliridhika na matokeo ya kutumia dawa za mitishamba?

A. Ndiyo
B. Hapana

25. Kama jibu ni hapana katika swali namba 24, kwa nini hukuridhika

A. Mimba ilitoka: 1. Ndiyo 2. Hapana
B. Uchungu ulikuwa mkali sana: 1. Ndiyo 2. Hapana
C. Mtoto alichoka sana tumboni: 1. Ndiyo 2. Hapana
D.Mtoto alizaliwa mfu: 1. Ndiyo 2. Hapana
E. Kizazi kilichanika : 1. Ndiyo 2. Hapana

26. Je utatumia tena dawa za mitishamba wakati wa ujauzito?

A. Ndiyo
B. Hapana

27. Kama jibu lako ni hapana katika swali namba 15, kwa nini hukutumia dawa za mitishamba wakati wa ujauzito uliopita

A.Hofu ya madhara kwa mtoto
B.Kwa sababu ya imani ya dini
C.Sijui kama zinatumika katika ujauzito
D.Nilishauriwa na mhudumu wa afya

28. Matokeo ya ujauzito uliopita kwa **asiyetumia** dawa za mitishamba

A.Mtoto hai
B.Mtoto alifariki ndani ya mwezi wa kwanza
C.Mtoto mfu
D.Mimba ilitoka.

Kwa wote waliotumia na wasiotumia dawa za mitishamba wakati wa ujauzito

29. Je unawashauri akina mama wengine kutumia dawa za mitishamba wakati wa ujauzito?

A. Ndiyo
B. Hapana

30. Je unafahamu kuwa dawa za mitishamba zaweza kuleta madhara kwa mama na mtoto?

A. Ndiyo
B. Hapana

31. Kama jibu katika swali namba 30 ni ndiyo, baadhi ya madhara ya dawa za mitishamba ni

A. Mimba kutoka : 1. Ndiyo, 2. Hapana
B.Uchungu mkali sana: 1. Ndiyo, 2. Hapana
C.Kizazi kuchanika: 1. Ndiyo, 2. Hapana
D.Mtoto kuwa katika hali mbaya tumboni: 1. Ndiyo, 2. Hapana
E.Mtoto kuzaliwa mfu : 1. Ndiyo, 2. Hapana