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USE OF HERBAL MEDICINES AMONG PREGNANT WOMEN A ATTENDING ANTENATAL CLINIC AT KIRYANDONGO GENERAL HOSPITAL, UGANDA

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ABSTRACT

***Objective*: To assess the knowledge and use of herbal medicines among pregnant women attending the antenatal clinic at Kiryandongo general hospital.**
***Design*: A descriptive cross-sectional study**
***Setting*: Kiryandongo general hospital in Masindi District, mid-western Uganda.**
***Subjects*: Four hundred (400) pregnant women attending antenatal care (ANC) were interviewed about their knowledge and use of herbal medicines during pregnancy using self-administered questionnaires, during the months of July and August 2013.**
***Results*: Of the 400 women who participated in the study, majority 246 (61.5%)was in the age range of 18 to 24 years old, married 379 (94.8%), stayed in a rural setting 293 (73.3%),had attained primary education 239(59.8%),peasant farmers 209 (52.3%), in monogamous marriage 247 (64.2%), of prime gravidae 117 (29.2%), and Banyoro by tribe 89 (22.3%). Three hundred and fifty (87.5%)of the respondents reported to have ever heard about the use of herbal medicines during pregnancy, with 169 (48.3%) reported having used herbal medicines during previous pregnancies or in the months prior to the study.One hundred and thirty two (37.7%) where found to be using herbal medicines at the time of the study, with the majority of them one hundred and eleven (84.1%) admitting that they will be using herbal medicines again in subsequent pregnancies. One hundred and fifty three (43.7%)considered herbal medicines to be safe during pregnancy and preferred them to conventional medicines because they have low side effects, are cheap and easy to access, and it is part of their tradition to use them during pregnancy.One hundred and ten (31.4%) believed that these herbs are neither dangerous to the mother nor the foetus.**
***Conclusion*:More efficient ways are required to educate the general population about the dangers of self-medication during pregnancy especially to advise pregnant mothers not to expose their unborn child to the risks of herbal medicines.Pharmacological and case control studies will be vital in assessing the efficacy and risks associated with herbal medicine use during pregnancy. Midwives, obstetricians and General Practitioners should facilitate women's wishes without condemnation, but this must be tempered with accurate information.**

INTRODUCTION

The use of herbal medicine has been on the increase in many developing and industrialised countries (1, 2).The World Health Organization (WHO) estimates that about 80% of people living in Africa use traditional medicines for management of their prevailing diseases (3). The global use of herbal medicines during pregnancy is common, ranging from 7.0 to 55.0%(4). This high use of herbal medicines may be due to accessibility, affordability, availability and acceptability of traditional herbal medicines by a majority of the population in developing countries (5), and the perception that herbal medicines are inherently safe.

In as much as there is wide spread use of herbal medicines globally and their reported benefits, they are not completely harmless. The indis-

criminate, irresponsible or non-regulated use of several herbal medicines may put the heal thof their users atrisk of toxicity (6). Conditions such as childhood malnutrition, congenital malformations, tumours, and acute renal failure have been linked to toxicor carcinogenic constituents present in herbal medicines taken during pregnancy (8) evidence for a possible link between the use of specific herbal medicines during the first trimester of pregnancy and increased risks of specific groups of congenital malformations have been found (9). The safety of herbal drugs becomes of particular importance in some sub-populations of individuals such as pregnant women and children, who are more vulnerable to the effects of drugs as well as of natural products for their physiological characteristics (10, 11). Nevertheless during pregnancy, exposure to herbal products isfrequent in these subjects and of tenona self-treatment basis.

Despite the fact that knowledge of potential side effects of many herbal medicines inpregnancy is limited (8, 12),data on the extent of women's use of herbal medicines during pregnancy is also scanty especially in sub-Saharan Africa,where the legislation for distribution and purchase of herbal medicines is not as stringent as it is for conventional medicines (13).Majority of the traditional herbal medicines used in Africa are provided by practioners who live within the communities, have been trusted over time and are often willing to assist the patients with their knowledge and skills, sometimes at a minimal cost to the patients (5, 14).

In Uganda, there is a great tendency for majority of women to utilize traditional therapies at each stage of pregnancy and resort to the health services only if absolutely required (Kyomuhendo, 2003). With over 80% of pregnant women in western Uganda (15) and 74% at Mulago National ReferralHospital(16) using herbal medicines during pregnancy,it raises a major public health concern since herbal medicines are not completely harmless and there is a growing need to minimize their dangers.Relentless efforts have been made by healthworkers to discourage the indiscriminate and unregulated use of herbal medicines during pregnancy however with minimal success as indicated by thehigh figures above. For such efforts to be rewarding, healthworkers and policy makers need more information about the knowledge base of pregnant women on herbal medicines and the motivating factors behind their use. This should also be coupled with more information about the pharmacology of the common herbs used during pregnancy. Currently this information is still scanty as a result of the insufficient research about herbal medicines in Uganda.

This study therefore, is aimed at determining the prevalence of use, knowledge base and the motivating factors behind the use of herbal medicines among pregnant women attending the antenatal clinic at Kiryandongo General Hospital and hence help narrow this knowledge gap.

MATERIALS AND METHODS

This was a descriptive cross-sectional study, conducted at Kiryandongo General Hospital located in Midwestern Uganda, approximately 225km northwest of the Ugandan capital, Kampala,along the Kampala-Gulu highway.This is a public hospital established by the government.

400 conveniently selected pregnant women who met the inclusion criteria were interviewed using a structured questionnaire in the months of July and August 2013. Only pregnant women who had been residents of districts served by Kiryandongo General Hospital for a period of at-least five months were included. Other inclusion criteria were those with normal and uncomplicated pregnancies at the time of the study, those who were able to provide informed consent, and were legally adults (18 years and older). Those who declined to participate in the study or were severely ill,or were unable to communicate, and those less than 18 years of age with no attendants were excluded.

Ethical approval was obtained from the Institutional Review Board (IRB) of Gulu University. Permission was also sought from the district health authorities and from Kiryandongo hospital administration.Written informed consent was sought from all participants after explaining the study and before the questionnaires were administered. The qualitative data collected were analyzed using SPSS 16.0 and descriptive statistics were used at 95% confidence level to evaluate the data obtained. Level of significance was set at $p < 0.05$.

RESULTS

Of the 400 women who participated in the study, majority 246 (61.5%) was in the age range of 18 to 24 years old, married 379 (94.8%), stayed in a rural setting 293(73.3%), Banyoro by tribe 89 (22.3%), had attained primary education 239 (59.8%),peasant farmers 209 (52.3%), of prime gravidae 117 (29.2%), and in monogamous marriage 247 (64.2%).

Children who had had a previous positive experience behaved poorer than those who had had a previous negative experience as is depicted in Table 2. Most of the children with a previous positive experience had negative behaviour 32(32.3%). In comparison, of those with a previous negative experience, most had positive behaviour 22(57.9%). This distribution was statistically significant (χ^2 =13.42, d.f 3 and p=0.004 , (P≤ 0.05). Children whose

Table 1
Socio-demographic characteristics of the respondents (N=400)

Variables	Frequency	Percent (%)
Age;		
18 - 24	246	61.5
25 - 34	130	32.5
35 - 44	24	6.0
Marital status;		
Married	379	94.8
Single	13	3.3
Divorced	3	0.8
Separated	3	0.8
Widowed	2	0.5
Educational level;		
No formal education	44	11.0
Primary school	239	59.8
Secondary Ordinary level	95	23.8
Secondary Advanced level	7	1.8
Tertiary	15	3.8
Religion;		
Catholic	155	38.8
Muslim	38	9.5
Anglican	157	39.3
Pentecostal	41	10.3
Seventh Day Adventist	9	2.3
Ethnicity;		
Muganda	18	4.5
Munyoro	89	22.3
Acholi	32	8.0
Mutoro	2	0.5
Alur	66	16.5
Lugbara	15	3.8
Muruli	53	13.3
Munyankole	11	2.8
Others	114	28.5
Employment;		
Teacher	15	3.8
Business	31	7.8
Peasant farmer	209	52.3
Housewife	135	33.8
Others	10	2.5

Of the three hundred and fifty respondents who knew about this practice, 153 (43.7%) considered the use of herbal medicines during pregnancy a safe practice, with only 25 (7.1%) considering them very unsafe.60 (17.1%) considered herbal medicines as being dangerous to both the mother and fetus, 26 (7.4%) considered them as being dangerous to the foetus only, 13 (3.7%) to the mother,while 110 (31.4%) believed that these herbs are neither dangerous to the mother nor the foetus. Majority 264 (75.4%) reported herbal medicine use to be a common practice in their community, of which 169 (48.3%) had ever used herbal medicines during previous pregnancies or in the months prior to the study.

Despite the above, only 132 (37.7%) said they were using herbal medicines at the time of this study,

with the majority of them 111 (84.1%) admitting that they will be using herbal medicines again in subsequent pregnancies. Among those who reported using herbal medicine at the time of this study, 39 (29.5%) said they started in the first trimester, 53(40.2%) reported to have started in the second trimester, while only nine (6.8%) reported using them throughout their pregnancy.Women who reported herbal medicine use during previous pregnancies where more likely to report a similar practice during a current pregnancy. (X2= 43.598, P =0.000, CI =95%).A statistically significant relationship between tribe and current herbal medicine use (X2 = 23.778, P = 0.002, CI =95%) was revealed. It revealed that Baganda and Banyoro women were more likely to use herbal medicines than women from other tribes.

With regard to efficacy, of the 350 respondents who knew about herbal medicine use in pregnancy, 196 (56%) believed that they are effective, 57 (16.3%) disagreed and the rest were not sure. Of the 132 who were using herbal medicines at the time of this study, majority 110 (83.3%) believed that herbal medicines are effective at managing their ailments while of the 18 first time users, ten (55.6%) believed that herbal medicines are effective.

However amongst women who had previously used herbal medicines, majority 121 (71.6%) preferredto continue using herbal medicines, with only 48 (28.4%) preferring conventional medicines. The relationship was statistically significant (p=0.000). The reasons given for preferring herbal medicines were that, they have no side effects and are more effective than conventional medicines 101 (66.9%), easily accessible and cheap 32 (21.2%) and because they were told that they are good, and it is their traditional way of life11 (7.3%).

When respondents were asked about their willingness to inform health workers that they were talking herbs, majority 249 (71%) considered it necessary to inform the health worker that they had been taking herbal medicines. The reasons for their choice included, it guides the health worker's decision in case you get a complication, they expected advice from health workers, and they strongly believe it part of tradition to use herbs during pregnancy.The 101(29%) who would not inform the health worker of their concurrent herbal medicine use gave some of these reasons for their choice, health workers will be hash, utter insults at you or neglect you because they discourage them from using them.

DISCUSSION

Majority 264 (75.4%) of the participants agreed to the fact that herbal medicine use during pregnancy is highly prevalent in their community but only 132 (37.7%) admitted to be using them during the study time. This prevalence level is relatively close to levels revealed in other studies in Nigeria at 31.4% (6), and 43%(14),Norway at 36%(17) and one study in Uganda at 40.9% (Batebya, 2003). However this prevalence level is lower than the 80% that was predicted in western Uganda (20) and 74%at Mulago National Referral Hospital (18). This disparity can be explained by differences in characteristics of the study population and the geopolitical coverage of the studies.

Our study population involved a number of tribes which when generalised could constitute tribes from the northern, western and central regions of the country. The percentage use of herbal medicines by tribe was found to be highest among the tribes from the western and central regions, compared to the northern region tribes. This could explain the higher prevalence levels of 80% in a study done in western Uganda (20), and 65% in another done in central Uganda (18). Suggesting that herbal medicine use is more prevalent among the western and central region tribes compared to the northern region tribes.

This study found no statistically significant relationship between the gravidity, religious affiliation, respondent's age, residence and the use of herbal medicines. However women who have ever used herbal medicines during the previous pregnancies were more likely to use them during subsequent pregnancies. This is consistent with other studies, which revealed that women who took alternative medicines during their previous pregnancy reported a significantly higher prevalence of use during their current pregnancy (16). Reasons given for preferring herbal medicines were that, they have no side effects and are more effective than conventional medicines, and they are easily accessible and cheap. Many considered it their way of life.

A large proportion of our respondents were not aware of the detrimental side effects of taking herbal medicines during pregnancy. The majority believed that herbal medicines are safe while a few were not sure about their efficacy. Only 15% considered them as unsafe. The indications for taking these herbs included widening the birth canal to result in smooth passage of the baby, treatment of fevers, sexually transmitted infections, urinary tract infections, fatigue, stomach pain, anaemia, vomiting, epigastric pain, heart burn, cough and backache. Stimulating cervical opening, induction of labour and reducing labor pains were also reported. Some of these indications are minor ailments during pregnancy however others are danger signs during pregnancy as fevers could indicate, among others, malaria in pregnancy, epigastric pain pre-eclampsia. Without proper medical examination, investigation and treatment, the use of herbs predisposes the mother and the foetus to complications that could lead to mortality. Several studies have related herbal medicines use to complications like congenital malformations (19,

20), intra-uterine growth retardation, decreased fetal survival rates (21), low birth weight, foetaldistress(8), foetal hypoxia and premature delivery asa result of uterine hyper stimulation and abortions. There may be benefits of these herbs in facilitating labour and reducing intra-partum complications, but this is currently unknown. All these interesting speculations should be subjected to standardised scientific research for confirmation, for active compound identification, and evaluation of their effects on the foetus, mother and the outcome of labour. Studies into the pharmacology of the most commonly used herbs will be of paramount importance in improving the safety of this practice.

The main source of information was friends,relatives and radios. However these may not have sufficient knowledge to advise pregnant women about the use and safety of herbal drugs yet the information, especially from radios is majorly from local herbalists who for financial ambitions use a persuasive language to lure the public into buying their products. Majority (70.5%) of the respondents who were currently using herbal medicines were willing to inform the health care provider of their herbal medicine use. Their reasons for this were; guiding the health workers decision in case they get a complication during labour and seeking expert advice about the medicines they are taking. This offers a window of opportunity for health workers to inquire in a non-judgmental way and provide the right information to these mothers. But only 0.6% of the respondents reported to have received advice from qualified healthcare personnel that further indicates the poor attitude towards consulting health workers or the limited knowledge health workers have about herbal medicine use during pregnancy. Studies have shown that a high percentage of health care workers have rated their knowledge of herbal medicine use during pregnancy as poor (22,23). Therefore health care personnel need to be aware and continuously educate themselves of the potential benefitsand dangers related to herbal medicine use.

Majority of respondents described herbal medicines as those extracted from plants. Although this study never assessed the methods of extraction and preparation, basing on the respondents description, we assume that most of the methods used are not safe, which may include poor storage methods, use of dirty containers, unsafe solvents like alcohol and un-boiled water. It is therefore essential for health care providers to always ascertain if their patients are currently taking herbal medicines or planning to do so, and patients who do acknowledge use of herbal drugs must also be understood in terms of their illness, beliefs and rational for taking alternative therapies. This should be included in their charts and then advised to use them with caution.

In developing countries, laws regulating sales and distribution of herbal medicines are not strict while access to herbal medicines is largely unrestricted. In spite of the fact that side effects and teratogenic potentials of most herbal products are little understood, indiscriminate use of herbal remedies in different forms is very rampant.

In conclusion,women do self-administer herbal medicines both before and during pregnancy, often without any recognition of their potential hazards. This is based on their own information or belief. Health care providers have an obligation to facilitate women's wishes without condemnation, however accurate information is necessary if this is to be successful. Although information on the safety of herbal medicines during pregnancy is incomplete, it is better to advise pregnant mothers not to expose their unborn child to the risk of herbal medicines. Massive campaigns will be a vital tool in educating the general population about the dangers of self-medication during pregnancy, especially the use of herbal medications. More national surveys on this topic are required to ascertain the true extent of this practice, and probably have it included in their antenatal cards. Pharmacological and case control studies will be vital in assessing the efficacy and risks associated with herbal medicine use during pregnancy.

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