



Prevalence of the Uptake of Traditional Medicine Supplements and Complements to Promote the Maternal Health among Pregnant Females of Reproductive age Visiting Kibagabaga Hospital Gasabo District Rwanda

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Abstract

Globally, regionally, and locally in Rwanda, traditional/alternative medicine has been used to supplement and complement conventional medicine in maternal and child health and Nutrition services in community households before pregnant females of the reproductive age visit antenatal services at nearest health facility. Despite significant progress made to promote accessibility to traditional medicine to most community households, by the traditional skilled birth attendant services to majority of population health, seeking maternal child health service specifically antenatal services, the information on quality uptake and their accessibility remain limited and undocumented due to neoconism in Gasabo Districts, it was this reason that led to determine the prevalence in uptake of traditional medicine supplements and compliments to improve maternal health among pregnant female of reproductive age attending Kibagabaga Hospital Gasabo District specifically to determine their prevalence and lastly evaluate knowledge, attitude and practice on the uptake of traditional medicine during gestation period from the traditional skilled midwifery attendants. The study aimed to promote skilled traditional midwifery as a primary health pillar of appropriate technology utilization in low-income countries, and to examine the uptake of traditional medicine as a complement and supplement to conventional maternal health services, specifically in antenatal care. The study design was a descriptive cross-sectional design using a mixed approach of surveys and interviews. The target population was pregnancy female of reproductive age and skilled traditional attendants visiting Kibagabaga, sample size determination was Solving's formula, size of 179 study participants in utilization process. A purposive stratified sampling design was used to recruit participants in the study and census sampling design. Semi-structured questionnaires and an interview/ FGDs guide. Data were managed by SPSS version 21 and analysed by cross-tabulation of descriptive and inferential statistics. Data was presented using figures and tables. The Results opined that the prevalence of traditional medicine uptake among pregnant females of reproductive age was 56 (31%). Participants demonstrated varied levels of KAP awareness regarding traditional medicine uptake via traditional birth attendants, to be significant with P values 0.023 95% CI. Based on the findings, the study may recommend that MOH should recognize traditional medicine uptake by female of reproductive age and traditional birth attendants as key supplementary/complementary of convention medicine and safe motherhood initiatives in maternal child health nutrition.

Keywords: Accessibility; Complements/Supplements; Traditional Birth Attendants; Traditional/Alternative Medicine; Convention Medicine, Inherited/Acquired Traditional Birth Attendant

Introduction and Background Information

The sick, just like the limited resources among community households, will always be present in the world. In sub-Saharan Africa, where you may find some of the world's poorest populations, there is also a high burden of disease with huge rate of morbidity and mortality. In resource-poor settings, traditional medicine has proved to be a useful resource which could be exploited to tackle some of the health problems in the community [11].

Traditional medicine/alternative comprises inherited or acquired knowledge systems that developed over generations within various societies before the era of modern medicine. This is particularly important in African countries, where up to 80% of the population relies on traditional medicine for their primary health care needs including traditional birth attendants during maternal health and nutrition care. When adopted outside of its traditional culture, traditional medicine is often called complementary or alternative medicine [26]. Especially at a time when Africa faces serious problems in the health systems, including skilled worker migration and brain drain [15]. Traditional medicine has been used by Africans for the prevention of obstetric complications, diagnosis and treatment of social, mental and physical ailments of different origins before and even after the advent of conventional medicine [26]. Complementary medicine is alternative medicine used together with conventional medical treatment in the belief, not proven by using scientific methods, that it "complements" the prevention, and control of obstetric complications in low-income population health [11].

The inherited/acquired Knowledge on indigenous medicine is generally transmitted orally through a community, family, and individuals until "collected". Within a given culture, elements of indigenous medicine knowledge may be diffusely known by many, or may be gathered and applied by those in a specific role of healer, such as a traditional birth attendant) midwife. Three factors legitimize the role of the healer: their own beliefs, the success of their actions, and the beliefs of the community. When the claims of indigenous medicine are rejected by a culture, generally three types of adherents still use it: those born and socialized in it who become permanent believers, temporary believers who turn to it in crisis times, and those who only believe in specific aspects, not in all of it [11].

In maternal health, obstetric complications during pregnancy are conditions associated with immense physiological alterations resulting in many pregnancy - influenced health complications, including nausea, vomiting, constipation, and heartburn [9]. Even though evidence on the safety profile of herbal products is inadequate to substantiate their use in pregnancy, it is increasingly used by expectant mothers. The prevalence of herbal medicine utilization in pregnancy ranges between 7% and 55% in different geographical, social, and cultural settings, and ethnic groups [9].

Prevalence of in Utilization of traditional medicine supplements and complements to improve maternal health among pregnant females of reproductive age

WHO (2013) estimates 65 and 80% of the world's population use traditional medicine as complementary or supplementary to safe motherhood initiatives in maternal health. Indeed, few studies are available on the use of herbs for pregnant women. Also, a study conducted in 2002 in the United States revealed that 62% of adults used Supplements/Complements in the year before the year of the research [4]. According to the European Information Centre for Complementary and Alternative Medicine [10] report analysis of surveys done over the past ten years preceding 2008 indicates that 20% of European citizens have clear preference for complementary of Traditional medicine and another 20% are regular users of Traditional medicine. The report further states that more than 100 million citizens in the EU make use of Traditional medicine and the most commonly used Traditional medicine therapies are homeopathy, physiotherapy (herbal medicine), anthropomorphic medicine, naturopathy, traditional Chinese herbal medicine, osteopathy, and chiropractic. In the developing world, the co-existence of various traditional medical systems such as Ayurvedic, classical Chinese, Yoruba, Unani Tibbi and Akan with biomedicine is a well-documented phenomenon [15]. Together, these various modes of interpreting and responding to sickness are what Charles Leslie (in Janzen 1978 pg14) termed "more or less pluralistic, more or less integrated, and more or less syncretistic regional systems".

Cross-sectional surveys in one Australian state in 1993, 2000 and 2004 demonstrated high levels of use of Traditional medicines and Traditional medicine therapists [20]. While overall use of traditional medicines was stable, with approximately 50% of respondents using at least one non-medically prescribed alternative medicine in the previous year, there was an increased number of

women using herbal medicines [20]. Users of Traditional medicine are more likely to be female, better educated, and employed [20].

A descriptive cross-sectional and triangulation of study design were used to determine the use of home remedies during pregnancy among Jordanian women. A convenient sample of 332 Jordanian pregnant women attending the MCH centers (antenatal clinic for follow-up) in Amman city; capital of Jordan, were interviewed by a semi-structured questionnaire in the period from October 2009 to January 2010. About three quarter of the participants (73.8%) have used home remedies because they considered it better than medications. The majority of users (90.2%) perceived that the effect of home remedies on their pregnancy complaints was total improvement. Fluid herbal remedies are the most common used, more than sixty one percentage of the participants reported the source of information was the mother and mother-in-law. The use of home remedies had no significant relationship with mother's age, educational level, and job status of participants as well as family size. The majority of the participants in the study used home remedies during pregnancy as part of their traditional practices. As there is very limited information about the safe use of home remedies, the mothers need education to avoid the use of home remedies during pregnancy.

In West Africa, in a Nigerian city, researchers reported that pregnant women used both traditional herbal medicine and pharmaceutical drugs, with the highest prevalence of concomitant use among nulliparous mothers [13]. Social demographic factors, such as geopolitical zones and educational attainment, affected the views of women on the safety of herbal medicine for the fetus and the side effects of herbal medicines [20].

In a South African hospital-based study, women with obstetric complications were compared with those who did not report such use, and it was found that traditional medicine use in pregnancy was relatively common (55% of delivering women). Furthermore, a higher cesarean section rate was observed in women who used traditional medicine compared to women who did not use traditional medicine (39% vs. 22%) [21]. A higher frequency of meconium-stained fluid in women who used traditional medicine during pregnancy compared to those who did not 56% vs. 15%) was also noted a higher frequency of meconium-stained fluid in women who used traditional medicine during pregnancy compared to those who did not (56% vs. 15%) was also noted.

In East Africa, a study in largely rural districts of Kenya found widespread use of herbal medicine among women cared for by traditional birth attendants during pregnancy, labor, and the postpartum period Family Care International. The use of herbal medicine was often complementary to medical care, depending on barriers to health care access, complications, and socio-cultural beliefs. According to the literature, use of herbal medicine during pregnancy, labor or the postpartum period occurs at rates ranging from 30% to 70% in a health care setting in urban areas of sub-Saharan Africa [13].

In the Bushenyi district of rural Uganda, a health survey study found that nearly all of the 285 women interviewed reported using herbal medicines during pregnancy and/or to induce labor [20]. Health surveys reported seventy-five plants that were used to induce labor, some of which were believed to be oxytocin by the authors of the study. In central Africa, a study carried in 2005 at Nyamasheke District western Rwanda, where five physicians, eighteen nurses, five community health workers, and four traditional medicine providers were interviewed, estimated the average utilization rates of phytomedicine during pregnancy to be 50-80%. CHWs, nurses, and physicians perceived the following to be the most common indications for phytomedicine use by pregnant women: prevention of malformations, induction of labor and augmentation of contractions, prevention of a husband's infidelity while a woman is pregnant, prevention of abdominal pain during pregnancy, and protection against witchcraft. Physicians and nurses more commonly perceived there to be non-medical reasons that women use traditional medicines, such as protection from witchcraft, compared to the more commonly reported medical indications by the CHWs and traditional medicine providers. Aside from protection from infidelity, traditional medicine providers only reported clinical indications for use [19].

Knowledge, attitude and practice KAP on Utilization Uptake of traditional medicine supplements and complements to improve maternal health among pregnant females of reproductive age

The uptake of herbal medicine as a cradle of traditional medicine has been on the increase in many developing and industrialized countries. It is known that between 65 and 80% of the world's population use herbal medicines as their primary form of health care. Reports from WHO show traditional medicine use in Uganda

and Tanzania at 60 per cent, in Benin and Rwanda at 70 per cent, and in Ethiopia at 90 per cent [26]. Also within the African continent, the proportion of individuals using the five most popularly used systems of traditional medicine varies as follows: 80 per cent of the population use herbal therapies, 13 percent make use of spiritual therapies, 5 per cent use manual therapy, and less than 1 percent use both homeopathy and chiropractic. Studies show that demand for traditional medicine is increasing in many other countries [3]. Traditional medicine has been described as a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. Traditional medicine includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within the distribution of KAP on the uptake of Traditional medicine in safe motherhood initiatives and between the Distribution of KAP on the uptake of traditional medicine in safe motherhood initiatives domain and that of the dominant system are not always sharp or fixed. In several parts of the world, particularly in developing countries, access to herbal medicines is largely unrestricted.

In developed countries, communities and midwives are showing a renewed interest in the use of herbal and alternative medicine [2]. In the African context, traditional medicine (TM) in pregnancy and labour continues to play, as it did in the past, an important role in health systems.

The significant increase in the use of herbal medicines has resulted in WHO's promotion of traditional medicine; countries have been seeking the assistance of the Organization in identifying safe and effective herbal medicines for use in national health care systems to achieve the goals of Primary Health Care, especially in rural areas, which cover almost 80% of the entire population. On the other hand, at the international level, the discussion of co-operation focused first on incorporation of traditional healers (THs) in Primary Health Care. However, it has been increasingly questioned whether Western biomedicine and TM can operate in a complementary way without one changing or oppressing the other [15].

KAP on Inherited/acquired traditional medicine efficacy, safety, and regulation

Herbal products have gained increasing popularity in the last decade and are now used by approximately 20% of the population. Herbal products are complex mixtures of organic chemicals that may come from any raw or processed part of a plant, including leaves, stems, flowers, roots, and seeds [2]. Substance-based practices use substances found in nature such as herbs, foods, non-vitamin supplements and mega-vitamins, and minerals, and include traditional herbal remedies with herbs specific to regions in which the cultural practices arose.

Although the practice of herbalism is not strictly based on evidence gathered using the scientific method, modern medicine does, however, make use of many plant-derived compounds as the basis for evidence-tested pharmaceutical drugs, and phytotherapy works to apply modern standards of effectiveness testing to herbs and medicines that are derived from natural sources [2]. Although herbs are often perceived as "natural" and therefore safe, many different side effects have been reported owing to active ingredients, contaminants, or interactions with drugs [6].

Safety: In general, traditional procedure-based therapies are relatively safe, if they are performed properly by well-trained practitioners and traditional inherited birth attendants. However, accidents do occasionally occur, most probably when practitioners are not fully trained or can result from misidentification or misuse of healing plants. Therapies should be performed within accepted parameters, and the indications for a therapy should be evidence-based when possible. Serious adverse effects of therapies are rare, but supportive data on adverse effects are not readily available. Accordingly, the evaluation of adverse effects should be considered a priority area for systematic evaluation of safety of these therapies [11].

One problem in ensuring the safety of a therapy is variable quality control in the manufacture of therapy equipment. The most effective safety measures, therefore, are to ensure that the equipment used is of good quality, as well as ensuring that the practitioners who use it have had sound and well-supervised theoretical and practical training. These are the appropriate ways to minimize incompetent examination of patients, incorrect diagnoses and errors of technique, and to ensure that patients are

properly selected for traditional procedure-based therapy [6]. It should also ensure that the practitioner knows how to deal with accidents when they occur, and knows how to refer the patient to an appropriate physician if the patient does not respond to therapy or if there is a medical emergency [6].

Efficacy, Alternative therapies lack the requisite scientific validation, and their effectiveness is either unproved or disproved. Many of the claims regarding the efficacy of alternative medicines are controversial, since research on them is frequently of low quality and methodologically flawed. Selective publication of results (misleading results from only publishing positive results, and not all results), marked differences in product quality and standardization, and some companies making unsubstantiated claims call into question the claims of efficacy of isolated examples where herbs may have some evidence of containing chemicals that may affect health. The Scientific Review of Alternative Medicine points to confusion in the general population a person may attribute symptomatic relief to an otherwise ineffective therapy just because they are taking something (the placebo effect); the natural recovery from or the cyclical nature of an illness (the regression fallacy) gets misattributed to an alternative medicine being taken; a person not diagnosed with science-based medicine may never originally have had a true illness diagnosed as an alternative disease category. The efficacy of most forms of traditional procedure-based therapies depends heavily upon the proficiency of the practitioners, including their skills and experience [6].

In the same way as for conventional therapies, medicine, and interventions, it can be difficult to test the efficacy of alternative medicine in clinical trials. In instances where an established, effective, treatment for a condition is already available, the Helsinki Declaration states that withholding such treatment is unethical in most circumstances. Use of standard-of-care treatment in addition to an alternative technique being tested may produce confounded or difficult-to-interpret results [6].

Regulation: In developing nations most especially, regulation of sales, importation and manufacturing of herbal medicines are not subject to rigorous scrutiny in terms of safety and efficacy as is the case for conventional western/allopathic medicines. The past decade has seen a significant increase in the use of herbal medicines. Nowadays the discussion concentrates more

on integration through regulation (associations, licenses and training), research and investments in effective services, products and consumer information [26].

Pregnancy and antenatal services is timed from the first day of the last menstrual period and normally last 37-42 weeks (average 40 weeks). It is split into three trimesters: 1st trimester is weeks 1 – 13, 2nd week 14–27, and the 3rd week 28 – 40. Organogenesis takes place in the first trimester, making the foetus most sensitive to any compounds ingested by the mother in this period [7]. When referring to the condition of a new-born baby, “Apgar score” is commonly used. This is a scoring system for heart rate, respiratory effort, muscle tone, reflex irritability, and colour. Each characteristic is assigned a value of 0 to 2 points so the total score is 0 to 10. The new-born is evaluated at 1 and 5 minutes after birth. A score of 7 or more is considered normal, 4-6 compromised and 3 or below a medical emergency [3]. Pregnancy is a special physiological state where medication intake presents a challenge and a concern due to altered drug pharmacokinetics and drug crossing the placenta possibly causing harm to the foetus [4].

Medication treatment in pregnancy cannot be totally avoided since some pregnant women may have chronic pathological conditions that require continuous or interrupted treatment (e.g. asthma, epilepsy, and hypertension). Also, during pregnancy, new medical conditions can develop and old ones can worsen (e.g., migraine, headache, hyperacidity, nausea and vomiting), requiring drug therapy [9]. So it becomes a major concern for pregnant women to take medication, whether prescription, over-the-counter, or herbal medication. Since the thalidomide era, there has been great awareness about harmful effects of medications on the unborn child [21]. It has been documented that congenital abnormalities caused by human teratogenic drugs account for less than 1% of total congenital abnormalities [22]. Hence in 1979, the Food and Drug Administration developed a system that determines the teratogenic risk of drugs by considering the quality of data from animal and human studies [22]. FDA classifies various drugs used in pregnancy into five categories: A, B, C, D, and X. Category A is considered the safest category, and category X is absolutely contraindicated in pregnancy [8]. This provides therapeutic guidance for the clinician.

Although some pregnant female of the reproductive age may have sufficient knowledge about high-risk medications in

pregnancy, there is a “general fear” of medications [19]. The hesitation in medication use by pregnant women might result in serious consequences, which include but are not limited to: termination of a wanted pregnancy [12], reluctance to use drugs for nausea and vomiting [5], preference of herbal medications [14], non-compliance to prescriber’s medication [25] and inclination toward OTC drugs [12] and other self-medication methods [18]. Medication use in pregnancy has been studied in different communities. The high prevalence of herbal medicine use in this environment among pregnant women can be attributed to its longstanding integration into the culture of the people and its perception as their own indigenous medicine.

In pregnancy herbs are normally used orally regularly as a tonic to clean the womb [24], to attain an easy and quick delivery [17], and to protect the child from evil and to have a healthy child [14]. Other factors underlying the use of traditional medicine have been identified as social pressure, dissatisfaction with the behaviour of clinic staff, reluctance of clinic staff to give drugs, and lack of privacy within the clinic environment such as biological, chemical or physical [1].

Taking herbal medicines during different trimesters of pregnancy may cause different effects. Exposure of the foetus 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 restriction, foetal distress, foetal hypoxia, and intrauterine death. The majority of mothers in the study took herbal medicines during the third trimester only (79.6%), mainly to facilitate labour. About 4.6% of mothers were exposed to herbal medicines during the first trimester only, and 9.3% were exposed to herbal medicines during the first and third trimesters. 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 had already been pregnant for several weeks [1].

Conceptual framework

Methods

Research design

The research study design was a descriptive cross-sectional and triangulation of themes design using a mixed approach of surveys and interviews.

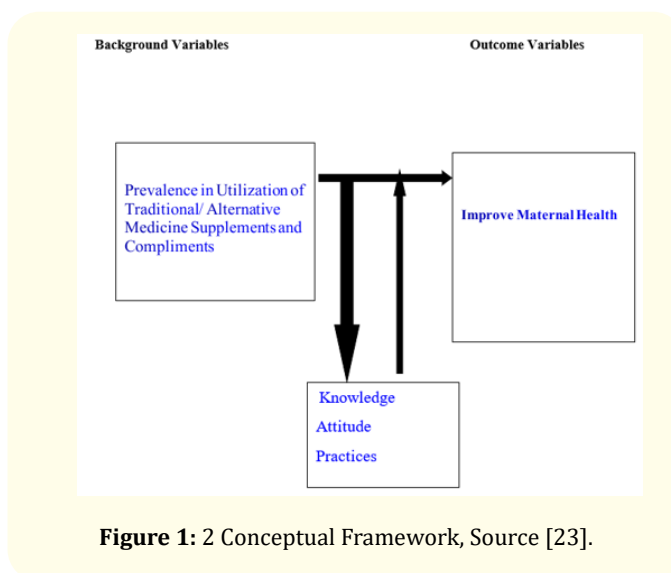


Figure 1: 2 Conceptual Framework, Source [23].

Target population

The target population comprised of all pregnant mothers attending Kibagabaga District Hospital

Sample size determination

A sample size was determined by using Slovin’s formula as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n is the sample size,

N is the population size (358) of pregnant females and skilled traditional is the desired level of precision (0.05)

Sample size = 246

Thus, the sample size for this study was 246.

Sampling technique

Purposive sampling technique only pregnant females of reproductive age visiting Kinabagabaga traditional skilled birth attendants.

Data collection tools and instruments

A closed semi-structured questionnaire was used to collect primary data. The questionnaire was translated into the local language (Kinyarwanda) to ensure that all the respondents

understand the questions. This method of data collection was preferred for this study due to its ease in collecting data from a large population and the friendly cost of administration in terms of time and money.

Key informant interviews and focus group discussions

Focused group discussions among 5 to 12 pregnant females who had visited the clinic for antenatal services were grouped around a chairlady secretary and body language to mediate discussion of themes and subthemes to saturation.

Pilot study for reliability and validity

A pilot study was done in the neighboring Nyarungenge district to pretest the validity and reliability of the tool and instruments using the same target population of obstetricians, midwives, and community health workers. The questionnaire and interview questions were then piloted among 10 pregnant women at the antenatal clinic to test the validity and feasibility.

Data management and analysis procedure

Quantitative data collected through the use of questionnaires were cleaned to remove all possible outliers, coded, and then entered into SPSS version 21 software. Analysis was done by cross-tabulation of descriptive and inferential statistics.

Qualitative data collected were analyzed for themes and subthemes until saturation, and verbatim data were kept as captions.

Ethical consideration

The proposal was approved by the MKU School of Postgraduate Studies, and ethical clearance by MKU ethical committee and MOE, school deaf.

Results and Findings

Demographic profile

Participation rate was 98 % (241) out of 246 respondents' uptake of traditional medicine to supplement or complement antenatal services.

The study opined that the majority, 64% (157), of respondents were aged between 18-35 years, while 36% (89) of the respondents were aged above 35 years. Most respondents, 45% (111) had

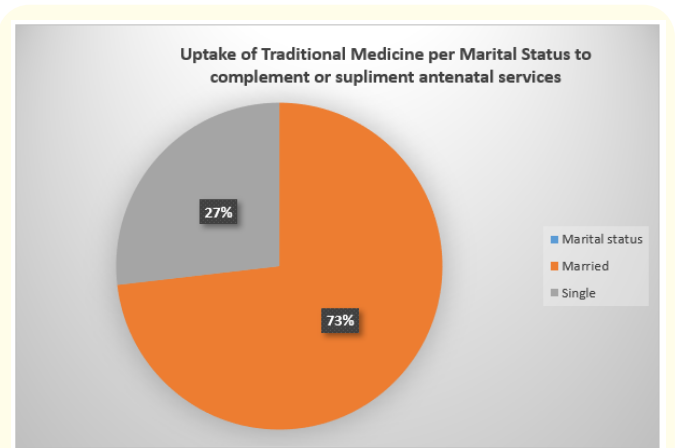


Figure 2: Distribution of Uptake of Traditional Medicine per Marital Status to complement and supplement antenatal services.

secondary education, 28% had primary education, while the least (32, 13% had university-level education. This shows that majority of the women are literate and therefore could provide reliable and relevant information.

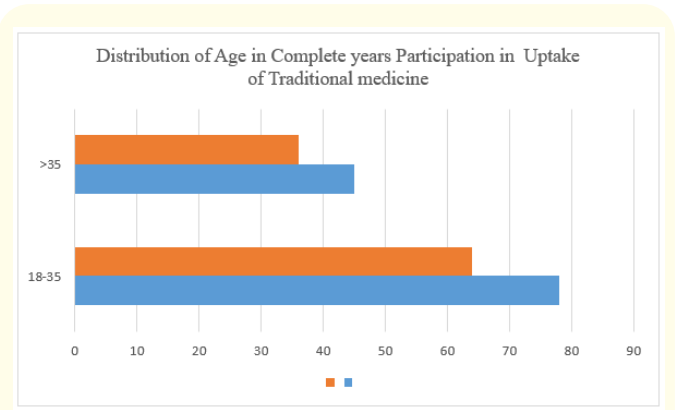
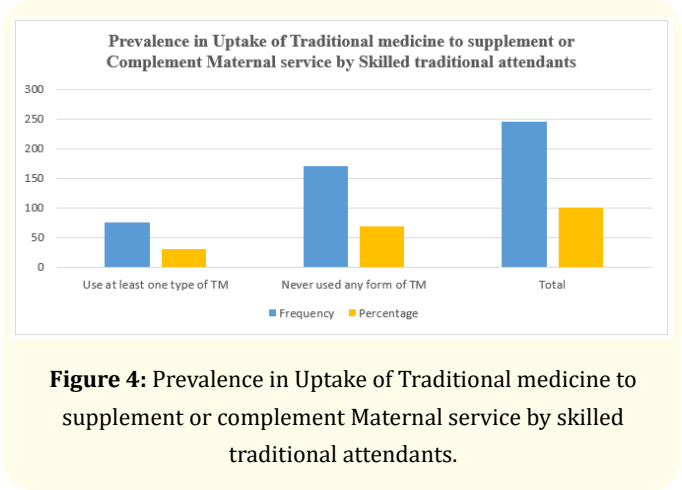


Figure 3: Distribution of Age in Complete Participation in Uptake of Traditional Medicine.

Prevalence in the uptake of traditional medicine by pregnant females of the reproductive age

The result opined that the prevalence in uptake of traditional medicine is only 31% (76) female of reproductive age uptake in the study district, with P value of 0.023, 95% CI in the complement of promoting safe mother initiative model, which was also found during discussion with skilled traditional attendants who said:

“Traditional medicine is efficiency in inducing labor and control of bridge presentation even in the late diagnosis of the condition”. KII held 12/7/2017.



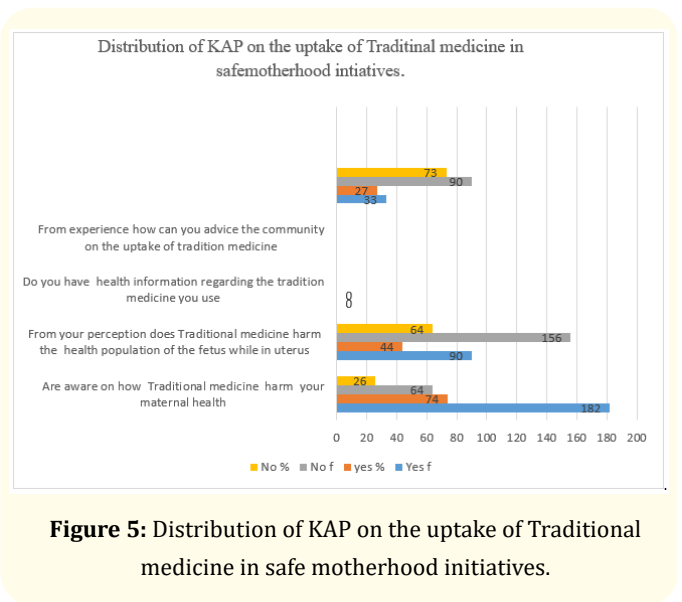
Knowledge attitude practice in uptake of traditional medicine to supplement or complement maternal service by skilled traditional attendants

The result showed that 74% (182) female of reproductive age of above 4 gravida utilized traditional medicine during their antenatal period with significant P value of 0.034 and 95%CI, but fear discussing it open due to increasing uptake of convention medicine on the 8 focused antenatal services society required of birth certificate of their new children which need facility settings. This was also discussed during FGD where by most mothers with above 5 gravida said:

“We only come for antenatal service to enable these coming new children to be registered for birth their certificate up taking; if this birth registration is given to cell elder/ Mutugudu, will bring children for immunization, only after giving birth” FGD held in 13 /7/2017.

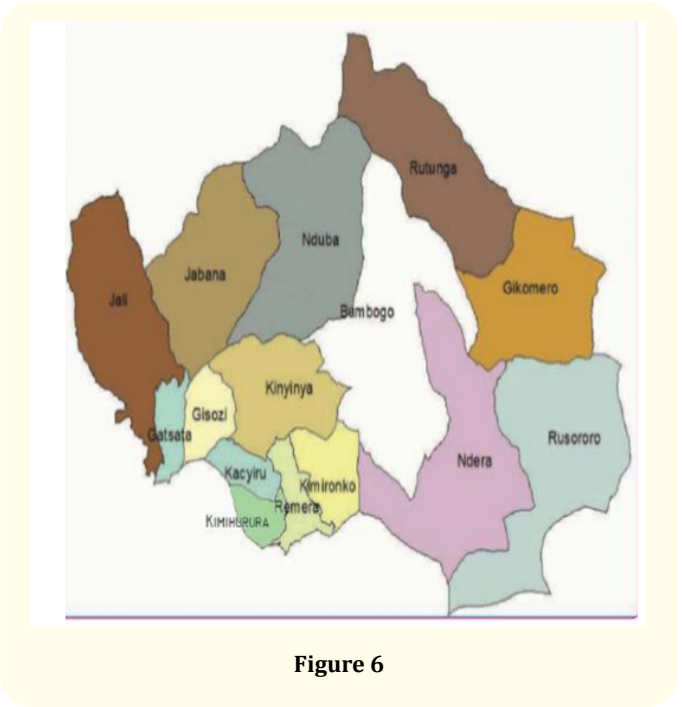
Conclusion

Uptake of traditional medicine to complement/supplement convention medicine should be discussed on the board to reduce obstetric complications and promote safe motherhood initiatives in low-income countries.



Recommendation the need to ministry of Health to integrate traditional medicine to reduce adverse side effects of mixing the two types of medicine.

Map showing distribution boundaries of Gasabo district



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