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The Use of Local Herbs in the Induction of Labor Among Expectant Mothers at Hoima Regional Referral Hospital, Western Uganda

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ABSTRACT

The study aimed to evaluate the use of local herbs in labor augmentation among pregnant women at Hoima Regional Referral Hospital in Hoima City, Western Uganda. The research was a descriptive retrospective study, focusing on participants' knowledge and exposure to herbs. The majority of participants were Catholics and Protestants, with 32.8% and 27.4% being full-time employees. The majority were secondary level participants. The majority of participants (93.6%) were aware of herbs used in labor augmentation, with 51.2% learning about them from friends and family and 32.2% from radios. Most participants had used herbs during labor, with herb shops being the most common source. Many participants reported no side effects and used herbs in powder. Local administration was the most common route. The study found a significant association between knowledge, attitude, and caretaker support with the use of local herbs in labor augmentation. The government's investment in health sensitization could potentially reduce the use of local herbs in labor augmentation.
Keywords: local herbs, augmentation, labor, pregnant mothers.

INTRODUCTION

Although we know that delivery is considered to be a natural process, pain during labor is considered to be severe and hard to cope up. Besides the newer methods like painless labor with the use of inhalational or other methods of analgesia for pain relief, using herbs and its preparations is still increasing among women [1].

Herbal medicines are described as “herbs, herbal materials, herbal preparations and finished herbal products that contain as active ingredients parts of plants, or other plant materials, or combinations” [2, 3]. Herbal medicines can be in the form of liquids, powder, capsules, tablets or ointments. Some are pre-packaged while others are prepared when needed. Herbal medicines are used not only to cure illness but to maintain or boost one’s health [4, 5]. Pregnancy is a condition associated with immense physiological alterations resulting in many pregnancy- related problems, including nausea, vomiting, heartburn and furthermore a painful labour period. These aliments usually result in pregnant women self-medicating using over- the-counter (OTC) medications, seeking prescribed medications, or using herbs [6].

The world health organisation defines normal labour as low risk throughout, spontaneous in onset with the fetus presenting by the vertex, culminating in the mother and infant in good condition following birth [7]

The course of normal labour consists of regular progression of uterine contractions, effacement and progressive dilatation of the cervix and progress in descent of the presenting part. There are three stages of normal labour. The first stage of labour lasts from the onset of regular uterine contractions to full dilatation of the cervix and is divided into three phases; the latent, active and transition phases. The second stage of labour is that of expulsion of the fetus, it begins when the cervix is fully dilated and it is complete when the baby is born. The

third stage of labour lasts from the birth of the baby until the placenta and membranes have been expelled (Dc Dutta's)

However, it has been noted that there is a rising trend in the use of herbal medicine among most women presenting to maternity ward and this is matter of concern in the health sector [1].

METHODOLOGY

Study type

The research was a descriptive retrospective study [8] in which participants were asked about in regards to previous exposure or knowledge and information of interest was documented.

Study Area

The study was conducted at Hoima Regional Referral Hospital in the obstetrics department.

Study population

The study population were pregnant women attending antenatal services at Hoima regional referral hospital during the time of data collection

Inclusion criteria

- The study included all pregnant women who have consented.
- Pregnant women who had ever given birth (multi-parous women)

Exclusion criteria

The exclusion criteria included:

- Failure to attain informed consent from the patient.
- Pregnant women who have never given birth.

Sample size determination

The sample size will be determined based on the Kish Leslie (1965) formula for calculating sample size using prevalence of outcome among head injury patients.

$$n=\frac{Z^2P\ (1-P)}{B^2}$$

Where;

n estimated minimum sample required

B margin of error

B - Precision level / sampling error (5%) = 0.05, at 95% confidence interval

The prevalence of herbal use in pregnancy in Uganda at 30 % [9]

Z= 1.96(for 95% confidence interval)

$$n = 1.96^2\ \frac{(0.3 \times 0.7)}{(0.05)^2}\quad n = 322$$

Sampling procedures

Consecutive sampling technique was used to sample the study participants. This means that a patient coming in and meets the inclusion criteria were enrolled as a study participant. The sampling procedure was used until the sample size required is exhausted.

Data collection techniques

A semi structured questionnaires was used to collect data from patients consenting to take part in this study. The questionnaires were designed to capture social-demographic data of the patients, knowledge and attitude towards use of herbs in pregnancy and common herbs used by pregnant women.

Ethical considerations

Permission to carry out the study was as sought from Kampala international university Research and Ethics Committee (KIU REC); Letters of introduction obtained from the Dean faculty of clinical medicine and dentistry will be presented to the management of HRRH. The letter of introduction provided by the management of HRRH was presented to the department of surgery for permission to conduct research in their area.

Only respondents who consent after the objectives of the study had explained to them participated in the study [10].

The research was always put patients' life and safety first and patients were free to leave the study if for any reason opt to seek medical care from another hospital.

The research was purely of academic benefits and no monetary value was attached as subscription to enter the study or gain from it. The questionnaires were handled with confidentiality and numbers instead of names will be used to ensure anonymity.

RESULTS

Though the study population was 322 participants, some questionnaires were invalid (not properly answered) and 314 questionnaires were valid and information collected from them was considered. Thus, the study considered 314 participants. The participants were characterized with the following demographic characteristics.

A greater number of participants were Catholics and protestant, accounting to 32.8% and 27.4% of the participants respectively; and 103(32.8%) were employed full time; 45.2% were married and 37.6% were single. Participants of secondary level were the majority accounting to 41.7%.

Table 1: illustrating social demographic factors

Variable	Frequency (n)	Percentage (%)
Age of respondents		
18-25 years	108	34.4
26-32 years	104	33.1
32-40 years	52	16.6
41-49 years	50	15.9
Marital status of respondents		
Single	118	37.6
Divorced	11	3.5
Window	43	12.7
Married	142	45.2
Education level of respondents		
Uneducated	13	4.1
Primary	59	18.8
Secondary	131	41.7
Completed tertiary	111	35.4
Religion		
Catholic	103	32.8
Born again	39	12.5
Protestant	86	27.4
Muslim	73	23.2
SDA	13	4.1

From the table below, majority 294 (93.6%) had ever heard (were aware) of herbs used in augmentation of labor. Many 161 (51.2%) got to know about herbs used in augmentation of labor from friends/family and 98 (31.2%) got to known about it from radios. Majority 288(89.4%) had ever used herbs during labor with the commonly known source of herbs were herb shops suggested by 103 (32.8%), many 268 (85.4%) said herbs used in augmentation of labor have no side effects, many 202 (64.3%) said they used herbs in powder from with common route of administration being local administration suggested by 215(68.5%).

Table 2: table showing the knowledge and attitude towards use of herbs in pregnancy among the pregnant women

Variable	Frequency (n)	Percentage (%)
Have you heard of herbs used in augmentation of labor		
Yes	294	93.6
No	20	6.4
Sources of information		
Friend/family	161	51.2
Radio	98	31.2
News papers	32	10.2
Others	11	3.5
Unspecified source	12	3.8
Have you ever used herbs during labor		
Yes	288	89.4
No	34	10.6
Source of herbs		
Traditional birth attendants	30	9.6
Old persons	39	12.4
Other women who have ever given birth	99	31.5
Herbal shops	103	32.8
I don't know where to buy herbs	20	6.4
Are there side effects of herbs used		
Yes	46	14.6
No	248	77.0
I don't know	20	6.4
Form herbs usually used		
Solid	11	3.4
Liquid	101	32.2
Powder	182	58.0
I don't know	20	6.4
Route of administration		
Orally	99	31.5
Local administration	195	62.1
I don't know	20	6.4

From the table 3 below ginger and Emumbwa (local name) were the commonly known herbs to be used in the augmentation of Labour.

Table 3: Common Herbs Used in the Augmentation of Labor

Known herbs used in in the augmentation of labour	Frequency (n)	Percentage (%)
Ginger	212	67.5
Onions	66	21.0
Elephant grass	55	17.5
Physalis peruviana (Cape gooseberry)	14	4.5
Cleome gynandra	79	25.2
Phoenix reclinata Jacq	23	7.3
Emumbwa	199	63.4
Raspberry leaf	47	15.0

DISCUSSION

In this study majority 294 (93.5%) had ever heard (were aware) of herbs used in augmentation of labor. Many 161 (51.2%) got to know about herbs used in augmentation of labor from friends/family and 98 (31.2%) got to known about it from radios. Majority 288(89.4%) had ever used herbs during labor with the commonly known source of herbs were herb shops suggested by 103 (32.8%), many 268 (85.4%) said herbs used in augmentation of labor have no side effects, many 202 (64.3%) said they used herbs in powder from with common route of administration being local administration suggested by 215(68.5%).

In a review of literature about herbal preparation among parturient women, it was found that women use herbs for the purpose of toning the uterus, getting relief of labour pain, stimulating or induction of labour and to control bleeding during delivery. In addition to that women also use herbs during pregnancy to have therapeutic effects on the birth weight of new born. The review further sited out advice from older women and information from women who benefitted from use of herbal medicines as a reason for women to approach traditional herbs [1].

However, about information sources, a study in Saudi Arabia showed that the majority of the participants recognized Physicians (49.9%) and Family/friends (29.5%) as the most reliable information source of herbal medicine [11].

Furthermore, a study done in Kenya revealed that among reasons for ever use were “other” (32%), a perception that Western medicine was “not working” (23.4%), and that herbal medicine was better or more effective for that illness/condition (21.3%) [4].

In another study desire to have control over their health has been cited as the strongest motive for women to use herbal medicine. Second was dissatisfaction with the conventional treatment and its disregard for a holistic approach. Further more women prefer herbs over conventional medicine as they have concerns about the side effects of medications. Women probably feel comfortable using herbal remedies because of perceived safety, easy access and the widespread availability of information about them [1].

However, despite the increased consumption of herbal medicines among pregnant women all over the globe, majority of them are unaware of the potential side effects and a potential teratogenicity of some herbal as the safety profiles and appropriate dosages of most of herbal medicines are not well studied in this group of populations [1].

Ginger and Emumbwa were the commonly known herbs to be used in the augmentation of Labour.

Plants that produce uterine contractions have similar action as that of oxytocin hormone, produced on the posterior lobule of the hypophysis, which stimulates the uterus, experience strong contractions, thus producing labour [12].

Additionally, a study in largely rural districts of Kenya found widespread use of herbal medicine among women cared for by traditional birth attendants during pregnancy, labour and the postpartum period [4]. Previous global health studies have identified a number of maternal risk factors associated with herb use including marital status, education level, birth order, antenatal care, socioeconomic status and rural residence [7]. However, this study will in addition to the above risk factors assess the maternal age, previous use, religion and parity of the mother as other possible risk factors towards the use of herb medication in labor.

CONCLUSION

Knowledge, attitude and care taker support has a significant association with use of local herbs in augmentation of labor.

Irrespective of personal and community factors, the government’s investment in the health sensitization has the potential to significantly reduce use of local herbs in augmentation of labor within the country.

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