

# The Perceptions, Knowledge and Use of Herbal Medicine Among Pregnant Women Attending ANC at the Baptist Medical Center in Nalerigu, The North East Region of Ghana

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**Abstract**—Herbal medicines are serving the health needs of several persons across the world especially those in developing countries. The study assessed the perceptions, knowledge and use of herbal medicine among pregnant women attending ANC at the Baptist Medical Center in Nalerigu, The North East Region of Ghana. The study employed a quantitative cross-sectional design and data was obtained by interviews using structured questionnaires. Findings revealed majority respondents were between the ages of (21-30) representing 51.4%, (31-35) 34.9 %, (15-20)11.5% and (36-40) 2.3% respectively. A large number of the study respondents have heard about herbal medicine (78.9%) while others have not heard of herbal medicine (21.1%). Most respondents (61.7%) said they have used herbal medicine before, with (38.3%) indicating they do not use herbal medicine. Findings also revealed 56% of respondents indicated herbal medicine is effective while 44% said herbal medicine is ineffective. Respondents' views regarding the effects they experience from the use of herbal medicine showed; headache (8%), vomiting (15%), dizziness (20%), diarrhea and stomach pain (52%) and others (5%) said they do not know the effects since they do not use herbal medicine. Comparing the effectiveness of orthodox medicine to herbal medicine, most of study respondents (60.6%) asserted orthodox medicine is more effective than herbal medicine (39.4%). The use of herbal medicines during pregnancy among women in Nalerigu is common, which may be an indicator for poor access and affordability to conventional western healthcare. This therefore calls for community sensitization on the dangers of indiscriminate use of herbal medications among pregnant women and training of traditional to vary the health needs of pregnant women.

**Keywords**— Perceptions, knowledge Herbal Medicine, Orthodox, And Pregnant Women.

## I. INTRODUCTION

Herbal medicines use is a common practice among pregnant women in many areas in most developing areas across the world (Anteneh et al., 2023; Leke et al., 2022). Pregnancy is characterized by the physiological changes that result into various symptoms, such as nausea, vomiting, morning sickness heartburn, and constipation (El Hajj & Holst, 2020). In the African set up, childbirth is one of the most remarkable occasion in the life of many individuals. Some pregnant women believe that herbal medicines are 'natural' and 'safe' compared to modern or orthodox medicines and could treat

medical problems to improve health status during and after pregnancy and childbirth (Bayisa et al., 2014). Studies have asserted to the rise in the use of complementary and alternative medicine during pregnancy among pregnant women in most instances (Bayisa et al., 2014; Leke et al., 2022). In the Sub-Saharan Africa, benefits from alternative otherwise herbal medicine in improving health particularly remain a policy issue. (Shuma et al., 2022). Most pregnant women in Africa use herbal medications because of its cost, effectiveness, convenience and access (Belayneh et al., 2022; Leke et al., 2022; Nyeko et al., 2016). An estimate of 80% of the population in Ethiopia depend on herbal medicine and at least 90% of all births is supervised by traditional birth attendants and in others cases family relatives. Nonetheless, information on the patronage of herbal medications among pregnant women in Ethiopia is limited (Adane et al., 2020; Girmaw et al., 2023). The most important aspect is the lack of awareness about potential effects of herbal medication use on pregnant women (Kwame Ameade et al., 2018). Herbal medications can be safe and may present little or no side effects when it is rightly prescribed and used (Jahan et al., 2022). In the context of Ghana, herbal medicine practice can be traced back to most societies and homes and this has been an integral part of livelihood (Mintah et al., 2022). Ghana even though, has increased accessibility to the modern healthcare provision coupled with the establishment of the National Health Insurance Scheme in 2003, healthcare facilities and health personnel in rural areas, remain a major problem (Kwame, 2016). An estimate of about three thousand herbal medications have been documented for the treatment of various conditions, a little over 60 have passed through a regulatory processes (Abbiw et al., 2012,). Nonetheless, studies have been conducted on herbal medicinal use in Ghana and have attributed the high patronage to factors such as attitudes, low cost, consumers perceptions, among others (Peprah et al., 2019). Other studies have reported general attitudes, perceptions, and prevalence of use, without considering pregnant women in relation to their attitudes, perceptions and utilization of herbal medicine. Most of these studies considered the developed nations and may not be

reflective in the rural Ghanaian context due to cultural differences (Peprah et al., 2019). Nalerigu is in no exception to these factors, the district health directorate 2017 annual health reported 46% of persons using both medical care and alternative medicine to treat their ailments without knowing its content and effects. The study therefore determined the perceptions, knowledge and use of herbal medicine among pregnant women attending ANC at the Baptist Medical Center in Nalerigu, The North East Region of Ghana.

## II. MATERIALS AND METHODS

### 2.1. Introduction

This section looks at how the study was conducted. It include; the study design, the study setting, the population and the sampling method. Also, the tools used for data collection and the method for data analysis and how data was interpreted.

### 2.2 Study Area

The study was conducted in Nalerigu, the capital town of the North East Region. Nalerigu is one of the newly created regions in Ghana and bounded to south is Northern Region, and to the North is the Upper East region. Majority (85%) of the people are involved in agriculture with the remaining being traders and others. It has an estimated population of about 14,927 (Ghana Statistical Service, 2010). It is predominantly a Mamprusi community with other ethnic groups that include; the Kusasis, Konkombas, Bimobas, Mossis, Chokosis and Bisa. The religious groups also include; Islam, Christianity and African Traditional religion. Nalerigu has one hospital which is a mission hospital owned and managed by the Baptist Church and it is the biggest health facility within the North East Region. It has 3 other health posts located at Langbinsi, Sakogu and Gbintiri. The Baptist medical Center is the major referral center in the district. The District has three large markets at Nalerigu, Langbinsi and Gbintiri which help the District Assembly to gather resources for development. The main means of transportation for the people are motor bikes, bicycles as well as commercial vehicles. The major economic activity in the area is farming and trading in farm produce. Other economic activities includes; petty trading and sales of provisions.

### 2.3 Research Design

The design for the study was a quantitative cross-sectional design.

### 2.4 Study Population

The study included every pregnant women of reproductive age who live within Nalerigu and attends ANC at BMC, Nalerigu. The population is a single sample population considered only women who were pregnant and visited ANC at the time of the study. It included all pregnant women from age 16-49 years.

### 2.5 Inclusion and Exclusion Criterion

#### Inclusion Criteria

1. The study included all pregnant women of reproductive age of 16 to 49 years.

2. It included all pregnant women attending ANC at BMC only and lives within and around the Nalerigu community.

#### Exclusion Criteria

1. The study excluded pregnant women below the age of 16.
2. It excluded pregnant women who do not attend ANC at the Baptist Medical Center in Nalerigu.
3. It excluded pregnant women who were mentally retarded/ill
4. It excluded also pregnant women who were severely ill

### 2.6 Sampling Techniques and Sample Size

The respondents were purposively selected based on the inclusion criteria and a sample size determined (n=177). The sample size was calculated from an estimated total of 315 pregnant women attending ANC at BMC. The formula as shown below was used for the sample size calculation;

$$n = \frac{N}{1 + Ne^2}$$

Where

n= corrected sample size,

N = population size, and

e = Margin of error (MoE), e = 0.05 at 95% confidence level based on the research condition.

$$N = \frac{315}{(1 + 315)(0.05 \times 0.05)}$$

$$N = \frac{315}{1.788}$$

$$N = 177$$

### 2.7 Instruments for data collection

Structured questionnaires were used to gather the data from the participants from the study area. The questionnaire was designed in english and interpreted in the local languages such as Mampuruli, Kusal, Moar and Bisa for participants who do not have any formal education.

### 2.8 Pre-test

The questionnaire was pretested for sensitivity of questions, reliability, comprehensibility, and appropriateness of language. A 50 sample questionnaires were taken to the Sakogu community clinic and administered to test its reliability, comprehensibility and appropriateness. The questions that were not well-understood were re-shaped for clarity, comprehensibility and appropriateness.

### 2.9 Analysis of Data

The data obtained was sorted and entered into SPSS Version 20. Results were then summarized and presented in tables with percentages.

### 2.10 Ethical consideration

Permission was obtained from the Ghana Health Service Ethical Review Committee, the Eat-Mampurusi District Health Directorate and the Baptist Medical Centre and departments such as ANC to enable the researchers carry out this study without any kind of hindrance. The details and objectives of the study were explained to all participants satisfactorily before obtaining informed consent from them. A written informed consent was presented to participants who

could read and write. Consent was sought from the parents and husbands of pregnant women who were below 18 years of age but satisfy the inclusion criteria. The informed consent was translated to participants who could not read and write in Mampuruli, Kusal and Moar and consent was obtained thereafter.

III. RESULTS AND DISCUSSIONS

3.0 Introduction

This chapter presents the results on the prevalence and knowledge of herbal medicine use pregnant women. The chapter is presented under the following headings: demographic characteristics of respondents, knowledge, and use of herbal medicine among pregnant women in the study area.

3.1 Demographic Characteristics of Pregnant Women Attending Antenatal Care

The demographic characteristics of the study respondents reveal majority of the study respondent were between the ages of (21-30) representing 51.4%. Others were between the ages of (31-35) 34.9 %, (15-20)11.5% and (36-40) 2.3% respectively. Majority respondents (94.9%) said they were married with other indicating they were not married (5.1%). Regarding their religion, 64% indicated they were Muslims, and 36% said they are Christians. The study further reveal the educational level of the participants as primary school (7.4%), middle/JHS (17.7%), O’level/SSS (19.4%). Some (32.6%) others indicated they have not had any formal education and tertiary education as 22.9% as shown on table 3.1 below respectively. The study also revealed most of the respondents were trades (54.3%), self-employed (20%), government employed (11.4%) and others not specified as 14.3%. in view of this, respondents indicated that, education and occupation has an influence on the type of health care services they can afford for to better their lives. They further said that, without education affect their employability and therefore their earnings.

TABLE 3.1. Demographic Characteristics of Study Respondents

Variables	Percent (%)
<b>Age</b>	
15-20	11.4
21-30	51.4
31-35	34.9
36-40	2.3
<b>Religion</b>	
Christianity	36.0
Muslim	64.0
<b>Marital status</b>	
Single	5.1
Married	94.9
<b>Level of education</b>	
Primary	7.4
Middle/JHS	17.7
O’Level/SSS	19.4
Tertiary	22.9
None	32.6
<b>Occupation</b>	
Trader	54.3
Self-employed	20
Government	11.4

Others	14.3
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3.2 The Knowledge and Use of Herbal Medicine among Pregnant Women

The study revealed majority (78.9%) of the respondents have heard about herbal medicine and a few others indicating they have not heard of herbal medicine (21.1%). Respondents were further asked if they have used herbal medicine before, most (61.7%) of them said they have used herbal medicine and others (38.3%) indicating they do not use herbal medicine. This is slightly lower to a study conducted in Jazan-Suadi Arabia which indicated that; highest percentage of the study participants use herbal medicine for cure of their sicknesses (80.9%) (Chowdhury & Chakraborty, 2017). The study also similar to a former study conducted in Bangladesh in 2018, which reported that 70% of expectant mothers took herbs (Ahmed et al., 2018).

Furthermore, respondents were queried on the reasons for using herbal medicine in treatment of their sicknesses. The study revealed various reasons such as; closeness and easy access to herbal medicine (20%), easily affordable (22.9%), more efficacious (45.6%) and in line with religious believes (8.6%) respectively. This support the findings that, use of herbal medicines include availability and accessibility, effectiveness, safety, affordability as well as its cultural compatibility (Aziato & Antwi, 2016). The characteristic reason with regards to the efficacy of herbal medicines pose a significant success in healing acute and chronic diseases (Boadu & Asase, 2017). A high preference for the effectiveness of herbal medicine by users is essential. Most respondents (56%) said herbal medicine is effective while others (44%) said herbal medicine is not effective in treating their sicknesses. The many that indicated the effectiveness of herbal medicine might have benefitted directly from the use of herbal medicinal in curing their illness. Nonetheless herbal medicine may have certain side effects to the users. In view of this, 58.9% of the study respondents agreed herbal medicine use may have side effects while others (41.1%) maintained herbal medicine has no side effect. This is slightly in agreement with other studies that showed 49.5% of respondents indicated herbal medicine has side effects, others 23.2% believe that there are no side effects the users of herbal medicine (Chowdhury & Chakraborty, 2017; Leke et al., 2022; Nyeko et al., 2016). Respondents views regarding the effects they experience from the use of herbal medicine showed effects such as; headache (8%), vomiting (15%), dizziness (20%). Diarrhea and stomach pain (52%) and others (5%) said they do not know the effects since they do not use herbal medicine. Comparing the effectiveness of orthodox medicine to herbal medicine, most of study respondents (60.6%) asserted orthodox medicine is more effective than herbal medicine (39.4%). Respondents were also asked if formal training herbal medicine practitioners will be helpful. Majority (64.4%) of them indicated the need formal training of herbal medicine practitioner while others (39.4%) indicated they do not need any formal training as shown in table 3.2 below.

TABLE 3.2. Knowledge and Use of Herbal Medicine among Pregnant Women

Variables	Response	Percent (%)
Have you ever heard about herbal medicine	Yes	78.9
	no	21.1
Have you used herbal medicine before	Yes	61.7
	No	38.3
Reason for Herbal Medicine Use	Closeness to me or easy access	20
	Affordability	22.9
	More Efficacious	45.6
	In line with my religion	8.6
Is herbal medicine effective	Yes	56
	No	44
	Orthodox medicine	61.7
Is there side effects with the use of herbal medicine	Yes	58.9
	No	41.1
What Type of Side Effect (s)	Headache	8
	Vomiting	15
	Dizziness	20
	Diarrhea/stomach pains	52
	Do not know	5
Is there effect with the use of orthodox medicine	Yes	60.6
	No	39.4
Do herbal practitioners need any formal training	Yes	64.6
	No	35.4

IV. CONCLUSION AND RECOMMENDATION

The study findings revealed the use of herbal medicine among pregnant women is a common practice in the study area. Most women have heard about herbal medicine and have some knowledge on its usage and also indicated they were side effects to the usage of herbal medicine as compared to orthodox medicine. Nonetheless the effects experienced, use of herbal medications among pregnant women who attend ANC in Nalerigu is still high. This could be influenced by the individual perceptions such as; effective in treating illness, affordable, easily accessible and low cost of herbal medicine as compared to orthodox medicine in the study area. Therefore the municipal health directorate should intensify its advocacy responsibilities to educate pregnant women on the effects and safety profile of herbal medicine use. Also, physicians and other medical experts such as doctors must play an essential role in ensuring that pregnant women are safe when using herbal medicine. Lastly, policymakers should also use this finding to set standardized herbal medicine use policies and guidelines for pregnant mothers.

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Conflict Of Interest

The authors declare that they have no competing interests.

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