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# **Traditional Medicine usage in Pregnancy**

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# Abstract

Antenatal care in Ghana is free in terms of service delivery however; pregnant women continue to use Traditional medicine during pregnancy to prevent malaria, miscarriage, ensure proper growth of the foetus, and cure piles, anemia, waist and abdominal pains and to strengthen the womb to accommodate the foetus. The purpose of this study was to determine how pregnant women perceive traditional medicine, prevalence and the types of traditional medicines use during pregnancy among women attending antenatal clinic at Kpetoe and Ziope health centers in Agotime-Ziope district. Structured questionnaires were administered to 202 pregnant women attending antenatal clinics in the two major health facilities within the district, thus Kpetoe and Ziope using simple random sampling techniques to collect data from the participants. The questionnaires were designed in English Language but translated into the local language (Ewe) to help participants who do not understand the English language. Data was collected on demographic characteristics, prevalence and types of traditional medicines used during pregnancy. Descriptive statistics were used initially with chi-square to determine associations if there was any.

Out of 210 eligible pregnant women, 202 (96%) agreed to participate. Fifteen percent of the respondents use at least one traditional medicine during the current pregnancy. Pregnant women in higher income status of Gh 1, 000 and above (US\$255) and pregnant women who were cohabiting were more likely to use traditional medicine. The use of traditional medicine among pregnant women in this environment was low. Attention should be given to education of pregnant women and the community as a whole on the potentials if any and side effects of traditional medicine use during pregnancy.

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# Introduction

Traditional medicine is an important and often underestimated part of health care delivery (WHO, 2014). The 1978 World Health Organization (WHO) conference on Primary Health Care in Alma Ata Pakistan, acknowledged that in many countries there are two health care systems (WHO, 1978). These are traditional health care system and the modern health care system based on conventional medicine and the WHO recommended the co-operation of the two systems in achieving primary health care (WHO, 1978). Individuals all over the world continue to use traditional medicines as principal or complementary bases of health care delivery. Traditional Medicine has a long history of use in health maintenance, disease prevention and treatment. As a result the WHO has put measures in place to support Member States to develop proactive policies on safety, efficacy, quality, access, and rational use and implementing action plans that will strengthen

the role Traditional Medicine plays in keeping populations healthy, especially in developing countries (WHO, 2014). Traditional Medicine has maintained its popularity in all regions of the developing world and its uses are rapidly spreading in industrialized countries (WHO, 2008).

The World Medicine Situation Report estimates that about 70 to 95% of the population in developing countries access Traditional Medicine (WHO, 2011). A research report indicates that the use of traditional medicines is well-known in developing countries (Gyasi, Mensah, Osei-Wusu, and Agyemang, 2011). In Ghana, Mali, Nigeria and Zambia, for instance, the first line of treatment for children with high fever resulting from malaria is the use of traditional medicines at home (Sato, 2012). The WHO estimates that in several African countries Traditional Birth Attendants (TBA) assist in the majority of childbirths. Studies have revealed that the majority of Ghanaians depend on traditional therapies for their health care and pregnant women were not exceptions (WHO, 2005). The high consumption rates of Traditional Medicines are mirrored in the speedy progression in the number of Traditional Medicines vents, clinics and hospitals (Bloom and Standing, 2001), and a substantial world market value of an estimated \$ 60 billion in 2008 (WHO, 2008).

Traditional medicines play a significant role during pregnancy, delivery and postpartum care in many rural areas of the world. The use of traditional medicines during pregnancy is a common practice in Africa (Malan & Neuba, 2011). Despite the modern western antenatal care which was developed based on the traditional medical practices in ancient Egypt, most pregnant women look forward to traditional medicines to ensure good foetus development and facilitate childbirth (Dove, 2010). Demand for traditional medicines by pregnant women have increased over the years in countries such as Australia, China, India, Taiwan, Cote d' Ivoire, Kenya, Nigeria, South Africa and Zimbabwe (Bodeker, Ong, Grundy, Burford and Shein, 2005). As a result the WHO has encouraged member countries to develop and streamline the traditional medicine use, which was supported by the World Bank in order to meet the health care needs of many including pregnant women (WHO, 2010).

Traditional medicine has become the panacea for many rural pregnant women in the World (Dove, 2010). In Africa the use of traditional medicine is an open secret because it underpinned the history and belief systems of Africans (Tamuno, Omole-Ohonsi and Fadare, 2010). In 2006 president Thabo Mbeki of South Africa met Professor Herbert Vilakazi who proposed that the use of traditional medicine should be a presidential project in the interest of Africa to reduce pregnancy-related death in our rural areas (Dove, 2010). This underscores the crucial role of traditional medicines in protecting our mothers in performing their natural function of giving birth. The government of Ghana upon recognizing the important roles played by traditional medicines established the Centre for Scientific Research into Plant Medicine at Mampong in the Eastern region of Ghana. The Centre is established to harness the works of the orthodox and traditional medical practices in Ghana.

Despite western modern antenatal care which is free in terms of service delivery in Ghana, pregnant women continue to use traditional medicine to secure foetus, facilitate easy delivery and also to have a beautiful baby. The study, therefore seeks to assess the perceptions of effectiveness, the prevalence of use and to document the various types of traditional medicines available for use by pregnant women in Agotime-Ziope District of Ghana.

#### **Research Design and setting**

This study is a cross-sectional, and descriptive in design and employed quantitative data collection approach. The choice of this design was due to its advantage to facilitate the collection of original data necessary to address the research objectives. It is useful in collecting data that can be quantified for reporting the true picture of the situation in the district. The goal of the research is to find out the prevalence of traditional medicine usage among pregnant women in the district. The documentation of the perceptions of effective-ness of traditional medicines, the prevalence and the types of traditional medicines used by pregnant women in Agotime-Ziope District will broaden our understanding of traditional medicines used by pregnant women. It was therefore appropriate to use the descriptive research design to achieve the objectives of the research.

# **Traditional Medicine usage in Pregnancy**

#### **Study Area**

The study was carryout in the Volta Region of Ghana which is located in the southeastern part of the country, and is the fifth largest of the 10 administrative regions of Ghana in terms of area coverage. The area under discussion in this study focused on the Agotime-Ziope District one of the newly created districts which was carved from the former Adaklu Anyigbe district. Agotime-Ziope District is bordered by the Republic of Togo to the East; Akatsi North and Central Tongu Districts to the South and the Adaklu District to the West and North. The population of the district according to 2010 PHC was 64,404. The District covers a total land area of about Six Hundred and Thirty-seven kilometer square (637km2). The district is made up of two traditional areas; The Agotime and Ziope traditional areas. The district is made up of one hundred and five (105) communities. The community members in the district have three main occupations namely; farming, Kente weaving and trading. The district has two health centers, Kpetoe and Ziope, and twelve CHPS compounds. The twelve CHPS compounds are Afegame, Agbesia, Akpokope, Dorglobo, Ebe, Honugo, Keyime, Kpetoe, Sarakope, Wudzekede, Yevi and Ziope. These Healthcare facilities also offer services to people of the Republic of Togo.

#### Variables

The variables assessed and measured included the following:

# Dependent variable

Traditional Medicine use

#### **Independent Variable**

Age, education, occupation, income, marital status and religion.

#### **Target Population and sampling Techniques**

The study population includes all pregnant women within the Agotime-Ziope district. Per the records at the District Health Directorate, the district recorded about 1,300 (16%) of the proportion of women in the reproductive age of 16 to 49 years who got pregnant in 2013. This figure was used as the population for the study. This implies that, the study population is 1,300 pregnant women in the Agotime-Ziope District. The study in this population is necessary because of increasing decline in the antenatal attendance among pregnant women in the district as reported by the Health Directorates. It is reported that only half of the pregnant women attend antenatal clinics in the District. In selecting respondents for this study, contacts were first made with the District Health Directorate for approval. The District Health Directorate gave the approval and an introduction letter to the two health centers, Kpetoe and Ziope.

#### Sampling method

In selecting the participants, the simple random sample technique was used. A total of the 202 participants were selected from Agotime and Ziope traditional areas in simple random sampling. The two major health centers within the two traditional areas were purposively selected, Kpetoe and Ziope. This helps to select pregnant women equally from the two traditional areas so that the outcome of the study would fairly represent the views of the pregnant women in the district. The antenatal attendance cards of the pregnant women were arranged in the order in which the pregnant women came to the clinics and were picked at random by numbering the cards. Cards bearing the odd numbers that are one, three, and five in that order were picked until the day was over. The daily attendance ranges from two to ten pregnant women. This was repeated in the Kpetoe and Ziope health centers selected in the district to collect data on 202 participants.

#### Data collection techniques and tool

Structured questionnaire was used to collect data from 202 pregnant women from the two health centers in the district. The questionnaires were designed in English, but the questions were asked in the local dialect which is Ewe for better understanding of participants who could not understand the English language. The questions focus on age, income, religion, marital status, employment, education, traditional medicine usage in general and in pregnancy, reasons for usage and non-usage of traditional medicine, under what conditions traditional medicines can be use and where these traditional medicines are obtained. The data was collected from 20<sup>th</sup> May to 20<sup>th</sup> June, 2015. The questionnaires were administered to participants by the research team at the health facilities.

#### Data processing and analysis

The data collected was analyzed using the Statistical Package for Social Science (SPSS) version 16.0 to determine percentages, means and frequencies. The chi-square test was used to test associations between independent variables and the use of traditional medicine during pregnancy with a significant P-value of < 0.05.

# **Ethical Clearance**

Approval was sought from the Ethical Review Board of the Ghana Health Service. Permission was sought from the District Health Director. In addition, permission was sought and obtained from the appropriate authorities at the two health centers before the study commenced. Written consent was sought from participants after a detailed explanation of what the study entailed was rendered. For the purpose of confidentiality, participants were required to answer questionnaire without their names being written on the questionnaire to ensure honest response. Participation was on a voluntary basis and the pregnant women were told they could terminate answering the questionnaire at any time without any penalty.

#### **Quality Control**

In order to achieve this, a well-designed structure questionnaire containing all the details necessary to achieve the set objectives by obtaining the right information from pregnant women was used. Prior to the collection of data, a day's training was organized for field workers who were to help with the collection of data. Supervision was carried out by the principal investigator while research assistants undertook field work. Completed questionnaires were checked for correctness and completeness. Two independent persons entered the data with the help of the principal investigator and the output was checked to ensure accuracy. A daily review of work was done and emerging problems immediately addressed.

#### Socio-Demographic Characteristics of Respondents

The socio-demographic characteristics of the survey respondents provide a clear idea of the respondents of the study. Table 1 presents information on the socio-demographic characteristics. The response rate was approximately 202/210 (96%). A total of 202 respondents of age 16 to 37 years and above participated in the study. Of the total number of respondents the majority (33%) fell within the age group of 26–30 years, followed by 27% who fell within 21-25 years.

Characteristics	Frequency	Percentages
Age		
16-20years	37	18.0
21-25years	55	27.0
26-30years	65	33.0
31-36years	34	17.0
37years & above	11	5.0
Marital status		
Married	161	80.0
Cohabiting	33	16.0
Widowed	5	2.5
No Response	3	1.5
Employment		

Trading	88	46.0	
Farming	68	35.0	
Student	25	13.0	
Teaching	7	4.0	
Weaving	2	1.0	
Unemployed	2	1.0	
Estimated income per month			
Less than Gh100	131	65.0	
Between Gh100-Gh300	37	18.0	
Between Gh301-Gh500	9	5.0	
Between Gh501-Gh700	1	0.5	
Between Gh701- Gh1000	3	1.5	
Above Gh1000	6	3.0	
Did not disclose	15	7.0	
Highest Educational Level Attained			
No formal education	22	11.0	
Primary education	58	29.0	
Junior high	74	37.0	
Senior high	35	17.0	
Diploma/certificate	9	4.0	
Graduate Degree	4	2.0	
Religion			
Christianity	164	81.0	
Traditional	23	11.0	
Islam	5	3.0	
None	10	5.0	

# **Table 1:** Socio-demographic characteristics of women enrolled in the study. Age (years).

In terms of formal education, the majority of respondents (37%) had completed Junior High School (JHS), 29% had completed primary School, 16% had completed Senior High School (SHS), 4% had Diploma and certificates from the Teacher Training Colleges, 2% had obtained Degrees. However, 11% of the respondents never had any formal education. The majority of respondents were Christians (81%). The rest were believers in Traditional African religion (11%) and (2%) were Muslims. However, 5% did not disclose their religion. We observed a comparatively significant number of Christians (52%) who currently use traditional medicine compared to the other religious groups. With respect to marital status, majority (80%) of respondents was married and (16%) were cohabiting. In terms of occupation, (46%) were petty traders, (35%) were peasant farmers, (4%) were teachers, (1%) was Kente weavers and (1%) was unemployed. However, (13%) of the respondents were students who got pregnant and drop out of School. With respect to estimated income per month, the majority of the respondents (65%) earned less than Gh[100 (USD 25), (18%) earned between (Gh[]100-Gh[]300), (4%) earned between (Gh[]301-500), (1%) earned between (Gh[]701-Gh[]1000), (3%) earned Gh]100 and above. However, (7%) did not disclose their income levels. The majority (65%) of the respondents lives on less than a dollar a day.

#### Awareness of healthcare facilities.

The majority of respondents (96%) spoken to acknowledge awareness of modern healthcare facilities in their localities while (4%) of the respondents mention traditional and spiritual centers as other healthcare facilities in their localities. However, (4%) of the respondents indicate that pregnant women in the district still use traditional medicine despite the awareness created in the district on the hospitals and health center attendance. The main factors that influence health care seeking among pregnant women in the district is the belief in the efficacy of the medication provided, 135 (66%) followed by the affordability of services at the health care facility 106 (52%) and the rest 78 (39%), 46 (23%) and 44 (22%) says the confidence in the services provided, responsiveness of the healthcare facility and the proximity of the health care facility respectively.

In all, over (80%) of the respondents associate efficacy of the medicines provided and affordability of healthcare services to modern hospitals and clinics whiles less than one tenth of the respondents associate efficacy of the medicines provided and affordability of healthcare services to traditional medicines.

Factors influencing health seeking	Frequency	Percentage
Efficacy of the medication provided	135	66.0
Affordability of service	106	52.0
Confidence in the service provided	78	39.0
Responsiveness of the center	46	23.0
Proximity of the healthcare center	44	22.0

Table 2: Factors respondents consider when seeking health care. (Base = 202).

#### Hospital visitation after conception

The antenatal attendance among pregnant women is very high with (95%) regularly visiting modern health care facilities. The majority of the respondents visit a health care facility for antenatal care within the first three months of pregnancy (65%), followed by 17% of the respondents who visit a health care facility for antenatal care between three to five months of pregnancy. Only 6% of the respondents use health care facilities late when pregnant. However, as high as 7% of the respondents did not state the specific time they use health care facility when pregnant and this is a great concern since it might mean that they do not visit any form of health care facility during pregnancy.

With regards to hospital and clinic visitation, the majority (85%) of the respondents visit hospitals and clinics for antenatal care services once every month and 5.5% of the respondents visit hospitals and clinics once in every two months. However, 3% of the respondents did not respond to the questions. Also a significant number of the respondents interviewed have registered with the National Health Insurance Scheme 186 (97%) while the remainder pointed to lack of money (3%) for their inability to register with the Health Insurance Scheme. Despite registering for National Health Insurance, 133 (69%) made mention of the fact that they make payments ranging from GH $\[mathbb{2}1$ . 00 to GH $\[mathbb{2}35$  (Average =GH $\[mathbb{2}11$ . 99, S. D=9. 06) for antenatal services at the modern healthcare centers for each visit. The free maternal health care policy in Ghana is not totally free but has helped many pregnant women to have access to hospitals and clinics in the district.

# The use of traditional medicine during pregnancy

Out of the 202 respondents in this study, 31 (15%) of the respondents indicated that they use traditional medicine during pregnancy whiles 171 (85%) of the respondents said they do not use traditional medicine during pregnancy.

Hospital Visitation after conception	Frequency	Percentage
Within 1-3 months after conception	131	65.0
Between 3-5 months after conception	34	17.0
Less than a month after conception	11	5.5
Between 5-7 months after conception	9	4.5
After 7 months	2	1.0
No response	15	7.0
The rate of Hospital/Clinics Visitation		
Once a month	172	85.0
Once in two months	11	5.5
Once a week	4	2.0
Once every two weeks	4	2.0
Once every three weeks	4	2.0
No specific time	1	0.5
Refused to respond	6	3.0

Table 3: When respondents start hospital/clinic visitation after conception (Base = 202).

Sources of Traditional Medicine. N = 46	Frequency	Percentage
Obtain it from traditional herbalist	23	74.0
Obtain it from the forest/wild	10	32.0
Obtain it from herb shops	4	13.0
Obtain it form pharmacies	4	13.0
Obtain it form roadside hawkers	3	10.0
From local herb seller in the market	2	6.0
Conditions for traditional medicine usage. $N = 10$	92	
If it is recommended by a medical doctor	72	42.0
Nothing will make me use traditional medicine	46	27.0
If I do not have any other option	41	24.0
If conventional medicines are not available	16	9.0
If I cannot afford conventional medicines	11	6.0
Recommendation from friends and family	3	2.0
If I believe it is efficient	2	1.0
If conventional medicine fails	1	1.0

Table 4: Where traditional medicines are obtained and conditions for traditional medicine usage.

With respect to where the respondents obtained the traditional medicines during pregnancy, the majority 23 (74%) of the respondents said from the herbalist, 10 (32%) of the respondents said they prepared their own traditional medicine and the rest of the respondents said from the traditional medicine sellers in the shops, pharmacies, hawkers and from market places. Also, (13%) of the respondents said they obtained the traditional medicine from the pharmacy, (10%) said from the hawkers and (6%) said from the local herbal shops. This indicates that herbalists play significant role in traditional medicine usage among pregnant women since they serve

as major (74%) suppliers of traditional medicine. Again large numbers (10%) of the respondents who use traditional medicine also indicate that they prepare these medicines themselves. However, only a few of the respondents obtained traditional medicine from the pharmacies and chemical stores.

Even though, 171 (85%) pointed out that they do not use traditional medicine during the current pregnancy, they are more likely to use it despite their reservation under the following conditions. The majority (42%) of the respondents said they are more likely to use it if recommended by a medical doctor, (24%) said they are more likely to use traditional medicine during pregnancy if they do not have any other option, (9%) of the respondents said they will use it if conventional medicines are not available and (6%) of the respondents said they will use traditional medicines. However, as much as (27%) of the respondents state categorically that nothing will make them use traditional medicine during pregnancy. This shows clearly that a large number of the respondents were educated by the health officials in the district on the dangers of traditional medicine usage during pregnancy.

However, users of traditional medicine during current pregnancy were confident of the efficacy of traditional medicines in addressing pregnancy and non-pregnancy related ailments. With regards to the effectiveness of traditional medicines, the overwhelming majority (97%) of the respondents who use traditional medicine during current pregnancy said they have not experienced any side effects as a result of using traditional medicine even though (3%) of the respondents mentioned diarrhea as a side effect they have experienced with the use of traditional medicine during pregnancy.

#### Reasons for non-use, use and frequency of traditional medicine during pregnancy

The majority of the respondents (52%) said they do not use traditional medicine during pregnancy because the side effects could be dangerous to their health and the unborn baby. Equally (52%) of the respondents also stated that it is not safe for pregnant women to use traditional medicine during pregnancy because they cannot guarantee the safety of the unborn baby, and also (31%) of the respondents indicated that their family and friends advised them not to use traditional medicine during pregnancy. Further, (11%) of the respondents said traditional medicines are not properly processed, and the rest of the respondents said they do not believe in the effectiveness of traditional medicines and the rituals associated with it do not make them to use it during pregnancy. It is clear that some of the respondents are aware of the dire consequences of traditional medicine usage during pregnancy and this has prevented them from using traditional medicine.

Reasons for nonuse of Traditional Medicine (N = 171)	Frequency	Percentages	
The side effects could be dangerous	90	52.0	
It is not safe for pregnant women	89	52.0	
Friends/family have advised me not to use it	53	31.0	
It is not properly processed	19	11.0	
I do not believe in the effectiveness of traditional medicines	12	7.0	
It is because of the spiritual rituals associated with it	9	5.0	
Reasons for traditional Medicine use (Base = 31)	16	52.0	
Because conventional medicine cannot cure my ailment	14	45.0	
It is part of our culture to use it	11	35.0	
they are safe to use during pregnancy	11	35.0	
I use it together with conventional medicines	8	26.0	
They are more effective than conventional medicine	6	19.0	
I use when conventional medicine fail	6	19.0	
It is always available when I need them	5	16.0	

It is cheaper than conventional medicine	16	52.0
Frequency of traditional medicine use (Base = 31)	6	19.0
As and when I need it	4	13.0
Three times a day Once a day Once a week	2	6.0
Frequently within the month Once in a month	2	6.0
Types of traditional medicine use (Base = 31)	1	3.0
Crude herbs (Nim tree, mahogany)	17	55.0
Agbeve Tonic	6	19.0
Molasses	4	13.0
Tinshi	3	10.0
Kpakpo Bitters	1	3.0

**Table 5:** Reasons for nonuse, use and frequency of traditional medicine during pregnancy.

#### Reasons for Traditional medicine usage during pregnancy.

It is only 31 (15%) of the respondents use traditional medicine during current pregnancy. With this, (52%) of the respondents who use traditional medicine said they use traditional medicine if conventional medicines cannot cure the ailment. This indicates that traditional medicine is not the first source of healthcare delivery for many pregnant women rather conventional medicines are the first choice and until these conventional medicines failed these pregnant women do not use traditional medicines. Also a significant number of respondents (45%) said they use traditional medicine because it is part of their culture to use traditional medicines during pregnancy, (35%) of the respondents said they are safe to use during pregnancy and also (35%) of the respondents said they use traditional medicines. Further, (16%) of the respondents said they use traditional medicines because they are cheaper than conventional medicines. This clearly shows that cost is another big issue when it comes to health care seeking among pregnant women. Also, (19%) of the respondents said they use traditional medicine because it is always available when they need it. This clearly shows that, unavailability of modern Hospitals and clinics also necessitate the use of traditional medicines among pregnant women and their existence has influenced the result significantly.

#### Types and frequency of traditional medicines used during pregnancy and reasons for usage.

Pre-processed and packaged herbs from pharmacies and herbalists (65%) were the main types of traditional medicines used by the respondents. About (19%) of the respondents mentioned Agbeve Tonic as the traditional medicine use during pregnancy follow by 13% who mentioned Molasses and the rest mentioned Tinshi and Kpokpa Bitters as a specific examples of traditional medicines use during pregnancy. Over half (55%) of the respondents also use crude herbs which they process themselves, specifically roots of Mahogany and the leaves of Nim trees while (29%) of the respondents use already packaged dietary supplements. Ailments respondents said they treated with traditional medicines include waist pain, anemia, malaria, piles and abdominal pains. Others also believe taking the traditional medicine will make the unborn baby strong.

#### Period and frequency of traditional medicine use during pregnancy.

The majority (52%) of the respondents said they do not have any specific periods or defined times that they take traditional medicine but rather "as and when they need it". Also, (19%) of the respondents said that they take it on average three times in a given day and 13% of the respondents said they use traditional medicine once in a given day. This indicates that these traditional medicines are abused by the majority (52%) of pregnant women since there is no specific time within which these medicines are taken and therefore use it whenever they feel to do so.

#### The use of traditional medicine during pregnancy

Out of the 202 respondents in this study, 31 (15%) of the respondents indicated that they use traditional medicine during pregnancy whiles 171 (85%) of the respondents said they do not use traditional medicine during pregnancy. This indicates clearly that the majority of the respondents have access to modern health care services where they visit for antenatal care.

		Use of herbal medicine		square alysis
		%	<b>X</b> <sup>2</sup>	P-value
Age Group				
Young Females (= < 2	25 yrs)	17.0	0.477	0.490
Older Females (> 25	yrs)	13.5		
Income Level	Less than GHI 500	13.0	14.222	0.003
	GHI 1000 and above	66.7		
Religion	Christianity	12.2	12.326	0.470
	Traditional	39.1		
Marital Status	Married	14.6	0.825	0.02
	Cohabiting	19.4		
Employment Status	Employed	15.5	0.247	0.619
	Unemployed	11.1		
Education	Higher education	9.5	1.306	0.253
	Lower education	16.7		

Table 6: An association of socio-demographic characteristics with herbal medicine use during pregnancy.

Across the demographic characteristics, we observed that there was no statistical significant association (p = 0.490 and 0.470) between a particular age group, religion, employment and education and the traditional medicine usage. This indicates that age, religion, employment and education do not influence traditional medicine usage among pregnant women in Agotime-Ziope district. However, there was a statistical significant association (p < 0.003 and p < 0.02) between income, and marital status and the traditional medicine usage among pregnant women in the Agotime-Ziope district. This indicates that income level and marital status of the pregnant women in Agotime-Ziope district influence traditional medicine usage significantly. From the table above it is clear that those pregnant women with higher income status (Gh $\square$ 1000. 00 and above) turned to use traditional medicine more than their counterparts in lower income status. With regards to marital status, pregnant women cohabiting tend to use traditional medicine more than pregnant women who are married and widows.

# Discussion

The study sought to assess the use of traditional medicine among pregnant women in Agotime-Ziope District.

#### Social-Demographic characteristics and Traditional Medicine usage

Across the demographic characteristics, we observed that there was no statistical significant association (p = 0. 490 and 0.470) between a particular age, religion, employment, and education and the use of traditional medicine during pregnancy. This indicates that age, religion, employment and education do not influence traditional medicine usage among pregnant women in Agotime-Ziope district. This finding is consistent with the findings of Nordeng and Havnen, (2005) in Norway, where no statistical significant association was found between the women's age and the use of traditional medicine during pregnancy. However, this finding contradicts with the findings of Fakeye, Rasaq and Musa, (2009) in Nigeria, where the age of respondents had a statistical significant association with the use of herbal medicines during pregnancy.

There was a statistical significant association (p < 0.003 and p < 0.02) between income and marital status and traditional medicine usage among pregnant women. This indicates that income level and marital status of the pregnant women in Agotime-Ziope district influence traditional medicine usage significantly. It is also clear that pregnant women with higher income status Gh $\mathbb{Z}1$ , 000.00 and above (US\$255) tend to use traditional medicine more than the pregnant women with lower income status (Gh $\mathbb{Z}100$ . 00 and below) and pregnant women cohabiting tend to use traditional medicine more than married women and widows. This finding is consistent with the findings of Fakeye, Rasaq and Musa, (2009) in Nigeria and Nordeng and Havnen, (2005) in Norway where there was a statistical significant association between income and traditional medicine usage during pregnancy. In spite of this consistency in the findings, income level of these pregnant women varies across the study sites. However, this finding contradicts with the findings of Tamuno, Omole-Ohonsi, and Fadare, (2010) in a tertiary hospital in northern Nigeria, where pregnant women with lower income status tend to use traditional medicine more than pregnant women with higher income status.

With regards to marital status, pregnant women cohabiting tend to use traditional medicine more than pregnant women who were married and widows. This finding is consistent with the findings of Fakeye, Rasaq and Musa, (2009) in Nigeria where there was a significant association between marital status and the use of traditional medicine during pregnancy.

#### Perception about safety and effectiveness of traditional medicine

Users of traditional medicine are confident of the efficacy of traditional medicines in addressing their ailments. With regards to the effectiveness of traditional medicine, (97%) of users said they have not experienced any side effects, it is safe, natural and more effective than conventional medicine. Although (3%) of the pregnant women mentioned diarrhoea as a side effect they have experienced with the use. This finding is consistent with the findings in Nigeria (Tamuno, Omole-Ohonsi and Fadare, 2010) where they report higher prevalence of herbal medicine use in that environment among pregnant women can be adduced to its longstanding integration into the culture of the people, effectiveness and perception of traditional medicine as their indigenous medicine. Also, this is similar to the findings of (Fakeye, Rasaq and Musa, 2009) where about 30% of the respondents using herbal medicine at the time of the study believed that the use of herbal medicines during pregnancy is safer than conventional medicines. Respondents' reasons for taking traditional medicines were herbs have better efficacy than conventional medicines, they are natural, safe to use during pregnancy than conventional medicines.

However, 6.0% of non-users in this study indicated they do not believe in the effectiveness and efficacy of traditional medicine usage during pregnancy. Their main concerns for not using traditional medicines during pregnancy are; the side effects could be dangerous and they cannot guarantee the safety of their unborn babies. This finding is consistent with the result reported by (Mothupi, 2014) in Kenya, where the respondents were of the opinion that adverse/side effects of some herbal medicines could be dangerous.

#### Prevalence of traditional medicine usage among pregnant women.

The study confirms the impression that Ghanaian women use traditional medicine when pregnant. The prevalence of traditional medicine usage in pregnancy reported by respondents in the study in the Agotime-Ziope District in Volta Region is 15%. Low traditional medicine usage was reported among respondents. This finding is consistent with several other study results in developed countries such as Australia and United State of America and in Sub Sahara Africa is consistent with findings in Nigeria and Kenya. For instance, in the developed countries such as Australia, (Pinn and Pallet, 2002) reported that 12% of the respondents said they use traditional medicine during pregnancy and United State of America (Gibson, Powrie, Star, 2001; Tsui, Dennehy and Tsourounis, 2001; Hepner, Harnett, Sega, Camann, Bader, Tsen, 2002) all reported that 13% of the respondents use traditional medicine during pregnancy.

In sub-Sahara Africa (Gharoro and Igbafe, 2000) reported that 12% of the respondents use traditional medicine during pregnancy in Nigeria and (Mothupi, 2014) also reported that 12% of the respondents use traditional medicine during pregnancy in Kenya. However, as much as 85% of the respondents said they do not use traditional medicine during the current pregnancy in Agotime-Ziope district. This finding is inconsistent with the study reports in Cote D'Ivoire, Nigeria, South Africa and Zimbabwe, where higher traditional medicine usage was reported. For instead, in Cote d' Ivoire (Malan and Neuba, 2011) reported that 35% of the respondents in the study use traditional medicine during pregnancy.

Also in Nigeria, a study by (Fakeye, Rasaq and Musa, 2009) reported that 30% of the respondents use traditional medicine during pregnancy and in South Africa (Maputle, Mothiba and Maliwichi, 2015) reported in a study that as high as 33% of the respondents use traditional medicine and in Zimbabwe (Mureyi, Monroe and Maponga, 2012) reported that as much as 55% of the respondents use traditional medicine during pregnancy which were higher than the current findings. Again, this contradicts the findings of (WHO, 2014) where it reported that traditional medicine usage is higher among pregnant women and the poor in the developing countries.

We can attribute this to accessible and affordable modern health care services available to pregnant women in the hospitals, clinics and CHPS compounds as a result of Ghana's policy on free maternal health, the National Health Insurance Scheme and the CHPS concept despite the marginal (3%) who have raised concerns about payments they made at the hospitals and clinics they have visited. However, this may not be the case in some countries in Sub Saharan Africa leading to the increase use of traditional medicine during pregnancy. This finding is consistent with findings in Kenya (Mothupi, 2014) where the respondents in the study had high rates of antenatal care attendance, which indicates relatively high use of public healthcare facilities during pregnancy. The high use of public healthcare facilities presents an opportunity to discuss the use of traditional medicine with pregnant women while attending antenatal care in the Agotime-Ziope district.

#### Factors Influences the use and non-use Traditional Medicine.

Respondents in this study had high rates of antenatal care attendance, which indicates relatively high use of modern health care services during pregnancy, and it confirms other statistics, where an increase in access to modern health care services reduces the prevalence of traditional medicine usage. The National Health Insurance Scheme has given the opportunity to pregnant women to seek healthcare from Hospitals and Clinics than traditional centers in Ghana.

A study conducted in South Africa (Van der Kooi and Theobald, 2006) indicates that women were turning to medical professionals, particularly nurses, as sources of knowledge about pregnancy, birth and infant care rather than to traditional sources of such information because the modern western health care is available and affordable. The pregnant women who reported of non-use of traditional medicine argued that they cannot guarantee its safety of their babies and themselves. This was the case in Nigeria, where only few pregnant women responded in the affirmative to the use of traditional medicine (Gharoro and Igbafe, 2000). As the findings indicated, traditional medicine use during pregnancy should be considered not only in terms of pregnancy-related conditions, but also other common illnesses such as piles, anemia and malaria.

Family and friends represent the social and cultural environment in which the pregnant woman lives and significantly influence health seeking behaviour during pregnancy. This study found that family and friends were very important motivation for traditional medicine usage as was the findings in Kazeroon, south of Iran (Tabatabaee, 2011) where 87% of the respondents reported to have been recommended herbal drug use by family and friends during pregnancy. The users also trusted the benefits of use by themselves. Study results of (Bloom and Standing, 2008) support this finding as they argued that in developing countries personal and social links influence health care provider choice.

Women with no formal education and primary education comparatively used traditional medicine more than women with secondary or higher education. This finding is consistent with the findings of (Forster, Denning, Wills, Bolger and McCarthy, 2006) who reported that pregnant women who use herbal medicine during pregnancy have no formal education or are less educated. The highest educational attainment in this study may explain the lower prevalence of traditional medicine used during pregnancy because they are likely to know the side effects of traditional medicine usage during pregnancy. Findings of another study in Nigeria indicated that educational status is an important determinant factor in the use of traditional medicine and other alternative systems of health care delivery (Tamuno, Omole-Ohonsi and Fadare, 2010).

#### Types of traditional medicine used during pregnancy.

Respondents mentioned Agbeve Tonic, Molasses, Tianshi and Kpokpa Bitters as a specific example of traditional medicine use during pregnancy. The respondents also mentioned crude herbs which they process themselves, specifically roots of Mahogany and Nim tree while others also said they use already packaged dietary supplements. The preparation of herbs by the pregnant women and their families indicate that the use of traditional medicine is part of their culture. However, this type of traditional medicines uses during pregnancy in this study contradict with the types of traditional medicines use in Nigeria (Tamuno, Omole-Ohonsi and Fadare, 2010) where the respondents said they use ginger, Forever Living, Golden Neo-Life Drugs, nutritional supplements and in South Africa (Van der Kooi and Theobald, 2006) reported kgaba as the traditional medicinal use during pregnancy.

This finding indicates that pregnant women use medical therapies than non-medical therapies. About 60% of respondents reported the use of medical therapies during pregnancy, which is the use of herbal medicines (the use of leaves, roots, fruits, vegetables, stems, flowers, meat, bone, wood, sand and stone for medicine) and 40% mentioned the non-medical therapies such as faith healers and ritual healers. This finding agrees with several other studies in Nigeria (Fakeye, Rasaq and Musa, 2009) and Norway (Nordeng and Havnen, 2005) where the respondents reported the use of medical therapies than non-medical therapies. However, the herbal medicines differ from place to place as the herbal medicines use in Norway were not the same use in Nigeria, which indicated that the environment also influence the type of traditional medicine used by pregnant women.

Ailments respondents treated with traditional medicine includes waist pain, anemia, malaria, piles and abdominal pains. Others also believe taking the traditional medicine will make the unborn baby strong. This finding was consistent with the findings in Nigeria (Fakeye, Rasaq and Musa, 2009) where the respondents reported treatment of malaria and to make their babies strong as ailment treated with traditional medicines. This contradicts with the ailments treated in Norway (Nordeng and Havnen, 2005) were the most commonly reported indications for using traditional medicine during pregnancy by respondents were cold and respiratory tract illness, nutritional supplement, skin problems, pregnancy-related problems, urinary tract infections, and central nervous system disorders. In South Africa, Van der Kooi and Theobald (2006) also reported that pregnant women use traditional medicine for abortion, breast cancer, contraception, irregular or painful menstruation and conception, orally on a regular basis as a tonic 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.

Pregnancy-related problems reported were 'nausea' and 'to increase uterus tonus. The majority of users (52%) said they do not have specific periods or defined times they take traditional medicine during pregnancy, but rather "as and when they need it". Also, 19% of the users also said they take traditional medicine averagely three times in a given day. This indicates that these traditional medicines are abused by pregnant women and contradict the findings in South Africa (Van der Kooi and Theobald, 2006) where the respondents informed the health professionals on how to use these traditional medicines to avoid abuse of traditional medicine.

#### Limitation of the study.

The study sets out to interview 210 respondents, but ended up interviewing 202 respondents and therefore limited the number of respondents in the study. Some women seemed to fear admitting the use of traditional medicine in pregnancy. This is due to the fact that traditional medicines are very often perceived negatively by the health workers. To reduce this problem, emphasize that the study was not aiming at judging anybody but rather finding the magnitude at which traditional medicines are used during pregnancy and associated factors was made. They were told that the main objective was to improve maternal health and to protect the unborn baby. After this explanation they freely answered the questions and shared their experience without any worry.

# **Conclusion and Recommendation**

**Key findings** 

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- Fifteen percent of the respondents use traditional medicine in current pregnancy, which indicate that a majority (85%) of the pregnant women do not use traditional medicine during pregnancy. This is as a result of government policy on free maternal health, National Health Insurance Scheme and CHPS concepts which make antenatal care services at the hospitals and clinics accessible and affordable and also the fear of side effects and inability to guarantee the safety of the unborn baby prevent the majority of the respondents from using traditional medicine during pregnancy.
- About 85.0% of the respondents said they do not use traditional medicine during pregnancy because of possible side effects and they cannot guarantee its safety to the foetus. However, regarding respondents' perception of the effectiveness of traditional medicine use during pregnancy, the majority of respondents (97%) said they perceived traditional medicine to be effective and have no side effects.
- 3. Forty-two percent of the non-users of traditional medicine in the current pregnancy said despite their reservation about traditional medicine, they are more likely to use it if it is recommended by a medical doctor.
- 4. The family and friends were influential in the use and nonuse of traditional medicine during pregnancy.
- 5. The respondents said they use Agbeve Tonic, Molasses, Kpokpa Bitters as specific traditional medicines use and crude herbs of the field such as roots of mahogany and nim tree.

#### Conclusion

The study set out to assess the use of traditional medicine among pregnant women in Agotime-Ziope district. The objectives were to assess the community perceptions of effectiveness of traditional medicines, to determine the prevalence of traditional medicine usage among pregnant women and to document the various types of traditional medicines used by pregnant women. Regarding respondents perception on the effectiveness of traditional medicine usage, the findings showed that the majority of respondents (97%) of users said they have not experienced any side effects although (3%) of the pregnant women mentioned diarrhea as a side effect they have experienced with the use. This study found that family and friends (81%) were very important motivation for traditional medicine use and (74%) users also tended to trust the benefits of use by themselves. About 85% of the respondents currently do not use traditional medicine and 15% use traditional medicine currently. Generally ever used for traditional medicines among the study participants were almost half of the respondents (49%). The main barriers to nonuse include side effects and adverse impact on the unborn babies.

The major conclusions that can be drawn from the findings of the study are that clinicians and caregivers should have knowledge of the traditional medicines commonly used by pregnant women and the potentials for toxicity. Attention should be given to enlightenment of pregnant women and the community on the side effects of traditional medicines use during pregnancy.

#### Recommendations

Tailored message should be developed to help pregnant women to have high perceptions of risk to reduce the desire for traditional medicine use. The families and friends are major sources of motivations in the use of traditional medicine. It is therefore important to promote disinterest in the use of traditional medicine through the media and women's groups. The District Health Directorate should consider these issues when designing interventions for mothers and pregnant women.

#### Areas for further research

A recommendation is made for further research on a pharmacological study focusing on local commonly used herbal medicines. This should be carried out to identify the exact pharmacological compounds of the herbs and to evaluate the effects of these compounds to the foetus and the pregnant women.

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