

WHERE, WHEN AND WHAT TYPE OF ALCOHOL DO PREGNANT WOMEN DRINK?

Y. ADUSI-POKU¹, A. A. BONNEY² and G. D. ANTWI²

¹District Health Directorate, Offinso North District, Ashanti, Ghana ²Department of Community Health, School of Medical Sciences, College of Health Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Corresponding Author: Dr. Yaw Adusi-Poku

E-mail: pokutogobay@yahoo.com

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SUMMARY

Background: Drinking alcohol in pregnancy is of a serious public health concern worldwide. Previous study in the Bosomtwe district put the prevalence of women drinking alcohol in pregnancy as 20.4%.

Objectives: To describe the alcohol drinking behaviour of pregnant women in the Bosomtwe district of Ghana.

Design: The study was a descriptive cross-sectional, conducted among 397 pregnant women who attended ANC in 2010.

Method: The study was conducted in all the 10 health facilities providing reproductive health care in the Bosomtwe district using administered questionnaires.

Results: The main findings of the study were that 20.4% of pregnant women drank alcoholic beverage of which the most preferred drink was Akpeteshie (36.4%), a locally brewed or distilled alcoholic beverage followed by the liqueurs (Ginseng, Kasapreko or Pusher - 27.3%. Study participants drank an average of 'half-tot' (15 mls) of akpeteshie and 'one-tot' - 30mls- of liqueurs per a drinking session respectively. They usually drank at home and before meals. The 25-29 year group 26(32.1%), married 50(61.7%) and Junior High School educated 37(45.7%) as well as christians 69(85.0%) and traders 28(34.6%) drank most.

Conclusions: The findings identified akpeteshie as the most preferred alcoholic beverage among pregnant women in the district. It is recommended that the health authority creates awareness of the existence of the problem of alcohol drinking in pregnancy and its potential effects on the foetus.

Key Words: Reproductive years, Alcohol consumption, Foetal Alcohol Syndrome, Ghana, Women, Akpeteshie

INTRODUCTION

Although the existence of alcohol-induced foetal damage is well established, it has been reported that, some 6 to 20 % of a cohort of women drank alcohol 'heavily'

during pregnancy¹ and over a quarter of the women drank alcohol throughout pregnancy.²

A mother does not have to be an alcoholic to expose her unborn baby to the harmful effects of alcohol during pregnancy. In other words, no amount of alcohol use during pregnancy has been proven safe.³ The detrimental effect of alcohol is much more pronounced on the foetus. The severest effect of alcohol on the foetus is a constellation of variable physical and cognitive abnormalities called Foetal Alcohol Syndrome (FAS) whilst if it is less severe, it is referred to as Foetal Alcohol Effects (FAE).

The child can be identified by small stature and a typical set of facial traits including small head (microcephaly), small eyes (microphthalmia), short palpebral fissures, epicanthal folds, a small or flat mid - face, a flat elongated philtrum, a thin upper lip, and a small chin. Abnormal palmar creases, heart defects, and joint contractures may also be evident. After birth, cognitive deficits become apparent. The most serious manifestation is severe intellectual disability, thought to be a teratogenic effect.⁴

The present study was informed by a previous study by Adusi-Poku *et al*⁵ that put the prevalence of pregnant women who drank alcohol at 20.4% in the Bosomtwe district. Again, it was alleged that women took unstandardised locally brewed alcohols such as akpeteshie and pito but there was lack of data to support these claims. Also, what informed this research was the prevalence of "ASRAM" among our rural communities.

The word "Asram" is a commonly used term in Ghana which applies loosely to any child born with cognitive or physical defects. Initially, the babies are small for gestational age and have difficulty in surviving. "Asram" is attributed by some individuals to an "evil eye" cast on the mother during the period of pregnancy.

Some mothers hide their pregnancies from people they believe could harm the foetus who transfer “Asram” by spiritual means. Could drinking these alcohols in pregnancy be associated with “Asram”? It may be that foetal Alcohol Syndrome may clearly be what is being referred to as “Asram”

The study sought to determine what type of alcohol was drunk, where this drinking took place, at what time of the day or ceremony as well as the average volume drunk per drinking session among pregnant women attending Antenatal Clinics in the Bosomtwe district.

METHOD

The study was conducted in all the 10 health facilities providing reproductive health care in the Bosomtwe district within the period of July and October, 2010 after ethical approval from the Committee on Human Research Publication and Ethics (CHRPE), School of Medical Sciences, SMS, of the Kwame Nkrumah University of Science and Technology, KNUST and the District Health Management Team (DHMT), Bosomtwe. All study participants gave their written consent prior to granting interviews.

The study design was a descriptive cross-sectional study and sample size was calculated to be 385 with a 5% non-response rate, totalling 401. This was to detect a 50% prevalence of pregnant women who drank alcohol at 95% confidence interval. An interviewer - administered questionnaire was administered to pregnant women attending antenatal care clinics. Four persons did not consent to being interviewed leaving 397 pregnant women who responded to the questionnaire.

To be included as a drinker, the criteria were: confirmed pregnancy at any gestation and parity as well as consumer of alcoholic base between 4 to 60 %. Pregnant women who were severely ill or who consumed alcoholic tinctures, syrups or sips of church wine were excluded from the population of drinkers.

At a facility where the number of registrants for ANC was larger than the quota allotted based on the expected pregnancies, systematic random sampling method was used. By this method, the number of registrants for a particular facility was compared to the expected pregnancies for that facility’s catchment area in 2010. However, in other facilities where the number was few; all the pregnant women who were willing to participate were included.

Data was collected using structured questionnaire with open and close ended questions which bordered on their socio-demographic characteristics, the type and average volume of alcohol drunk per a drinking session

and where and when this drinking took place. Data were entered into EpiData (version 3.1) software ⁶ and analysed in STATA (version 10) ⁷. Pretesting was done prior to the study at Foase, a nearby district. Measurements included means, proportions and percentages.

RESULTS

Table 1 describes the socio-demographic characteristics of the pregnant women who drank alcohol in the Bosomtwe district of Ashanti. The 25-29 year group 26(32.1%), married 50(61.7%) and Junior High School educated 37(45.7%) as well as Christians 69(85.0%) and traders 28(34.6%) drank most.

A total of 397 pregnant women responded to the questionnaires. Of these, 81(20.4 %) responded positively to drinking alcoholic beverages. Among those who drank alcoholic beverages, 4(12.0%) drank more than one type of alcoholic beverage per drinking session.

Of those who preferred one type, 28(36.4%) preferred to drink Akpteshie, a locally manufactured alcoholic beverage; followed by the Liqueurs (Ginsing/Kasapreko/Pusher), 21 (27.3%). Guinness and Beer drinkers were 14 (18.0%) and 3 (3.90%) respectively.

Traditionally, certain beverages such as palm wine and pito are served not in standard measuring glasses, but in the form of calabash (made from gourd). A typical calabash size for serving was approximately 750 mls. Only 8(10.4%) and 3(4.0%) drank palm wine and pito respectively.

Per a drinking session, pregnant women took more of the following amount of drink - size in each of the following alcoholic category: akpeteshie: ‘half-tot’ (15 mls), the liqueurs: ‘one-tot’ (30mls); palm wine or pito, 1 calabash per sitting. Similarly for beer (625 mls) and guinness (330 mls), more people drank 1 bottle per drinking session.

Most of the respondents, 52(64.2%), from Table 3, purchased these drinks from drinking spots/pubs. This was followed by those 11(13.6%) who acquired or purchased these during festive occasions, funerals, naming ceremonies where these activities took place. Ten (12.4%) indicated that drinking was part of the family’s way of life during meals and therefore, for them, alcohol was brewed in the home.

A few, 5(6.1%) acquired these drinks from ‘other sources’ such as from the head of the household, being the father who brought the alcoholic beverage home or it was freely accessible at site where being brewed.

Some 3(3.7%) acquired their drinks from one or more of the above places.

Table 1 Socio-demographic background characteristics of pregnant women drinking alcohol in Bosomtwe District, Ashanti-Ghana

Drinkers	Frequency	Percentage
Age groups		
15-19	7	8.6
20-24	18	22.2
25-29	26	32.1
30-34	14	17.3
35-39	10	12.4
40-44	6	7.4
Gravidity		
Primigravida	17	20.0
Multigravida	64	80.0
Marital Status		
Married	50	61.7
Unmarried	31	38.3
Level of Education		
None	21	25.9
Primary	20	24.7
Junior High School	37	45.7
Tertiary	3	3.7
Religious Groups		
Christians	69	85.0
Muslims	0	0.0
Others	12	15.0
Occupation		
Traders	28	34.6
Unemployed	19	23.5
Farmers	18	22.2
Artisan	13	16.0
Clerical worker	3	3.7

Table 3 Venues where pregnant women in Bosomtwe District acquired alcohol

Places where respondents acquire their drinks.	Frequency	Percent
Drinking Spots/Pubs	52	64.2
Festive occasions/funerals/naming ceremonies	11	13.6
Home: (part of the course of meals)	10	12.4
Other sources	5	6.1
More than one of these places	3	3.7
Total	81	100

Table 4 Times when pregnant women drank alcohol

Time of the day/Event when respondents drink	Frequency	Percent
During meal times	58	71.6
During social gatherings funerals/naming ceremonies	19	23.5
When depressed at home	2	2.5
Close of work at home	1	1.2
More than one of these periods	1	1.2
Total	81	100

Table 2 shows the common alcoholic beverages found in the Bosomtwe district. The corresponding alcoholic strengths are indicated.

Majority of the respondents, 58(71.6%), From Table 4, drank these beverages during meal - time followed by 19(23.5%) who took these drinks at social gatherings such as festive or naming ceremonies. Few number of women, 2(2.5%) drank at home at times when they felt depressed. Only 1(1.2%) said she took it at the end of the day after the close of work when she was extremely fatigued. The same number, 1(1.2%) said she took it at multiple times of the day.

Table 2 Common alcoholic beverages in the study area and their alcohol base content

Alcoholic beverage	Alcoholic strength	Source
Akpeteshie	40.0 -50.0 %	http://en.wikipedia.org/wiki/Akpeteshie
Beer	4.0%	http://www.alcoholcontents.com/
Guinness	4.2%	
Kasapreko/Ginsing/Pusher (Liqueur)	15.0-55.0%	
Pito	2-3.0%	World Journal of Microbiology & Biotechnology Accessed: http://www.springerlink.com/content/
Palm Wine	4.0%	en.wikipedia.org/wiki/Palm_wine

DISCUSSION

About a fifth (20.4%) of the pregnant women surveyed consumed alcoholic beverages and the majority was the 25-29 year group. The prevalence is high compared to other studies done in the United States and Canada. For example, the study by the Behavioural Risk Factor Surveillance System (BRFSS), in the U.S.A as reported by Sullivan⁷ found the prevalence of pregnant women who drank at least once, during pregnancy was 12.0%. In Canada, the prevalence was 5.8 %.⁸

However, the age group with the highest drinkers was similar to the findings by the Institute of Alcohol Studies⁹ that most alcoholic beverage drinkers were in their 20's and 30's. The highest numbers of alcoholic beverage drinkers were married (61.7%) but with respect to the level of education, the highest percentage was those with junior high education (about 46.0%). This result differs from the study in the U.S by BRFSS that alcoholic beverage in pregnant women in the U.S.A was highest among college-educated women, and the unmarried.⁷ This finding somehow reflects the cultural differences and the level of education among the different populations where these two studies were conducted.

In the district where this current study took place, a married woman must appear to be living an improved lifestyle and this must be seen by her deliberately putting on weight and a change in the tone of the skin colour (by bleaching the skin).¹⁰ With respect to weight gain, alcohol is taken to boost appetite.

This study has shown that about half of pregnant women who drank one-type of alcoholic beverage during pregnancy preferred the locally brewed type. In general, the alcohol content (Table 2), ranged from 4.0% in the case of beer and palm wine to 55.0% as in akpeteshie. What is worth noting is the point that a mother does not have to be an alcoholic to expose her unborn baby to the harmful effects of alcohol during pregnancy. In other words, no amount of alcohol use during pregnancy has been proven safe.³

It is of much concern that more of these pregnant women drank locally brewed alcohol. According to the WHO global status on alcohol¹², these traditionally brewed alcohols can cause death, blindness or illness, from methanol, high alcohol content, or the deliberate addition of substances such as car battery acid or formalin. Such cases have been reported in Kenya, Zimbabwe, Bangladesh, India, and Somalia.

Contrary to preferences in most African countries, Albertsen and others¹³ on a study of alcohol consumption during pregnancy and the risk of preterm delivery

among some Danish women demonstrated the type of alcoholic beverage drunk during pregnancy as follows: 11.5% drank beer, 71.0% drank wine and 0.9% took spirit whereas 16.7% took mixed.

Liqueurs, as indicated above, were the second major preference. These have brand names such as Ginsing, Pusher or Kasapreko. The WHO report¹² also stipulated that these are gaining popularity on account of the numerous advertisements and prestige attached to these brands. Such popularity could be detrimental to vulnerable groups such as pregnant women.

More than half of the pregnant women sent people to purchase it from drinking spots or pubs as the most preferred place where they acquired drinks. In a similar study by Eaton and others¹⁴, 61.0% of the pregnant women reported attending the bar that evening to drink alcohol. The difference was that socio-cultural stigma may not have permitted this practice in the study area.

Some 10(12.4%) of the pregnant women chose to drink at funeral or naming ceremonies. These festive grounds have long been the haven for social drinking where alcohol usage is a vital component without which the occasion is deemed unsuccessful.¹⁰ Thus, it may be socially more acceptable for women to be found drinking here than in the pubs.

This study has also shown that most of the pregnant women drank at meal time (71.6%). This is not unusual in this district and in fact, most of the parts of the country. People drink to boost their appetite for food so as to 'enrich their blood' and to gain weight as aforementioned; these days, this is fashionable called 'good living'.¹⁰

CONCLUSIONS

Drinking alcohol in pregnancy is real, in the Bosomtwe district of Ashanti where majority take in locally brewed alcohol in the house during meal times.

RECOMMENDATIONS

The District Assembly in collaboration with the District Health Management Team should intensify their education through the local health information system, among churches and mosques and fetish shrines about the potential effects of alcohol in pregnancy.

It is also recommended that prospective studies be conducted on alcohol consumption in pregnancy among this percentage of women who drink to determine the true effects of alcohol on the foetus in the Bosomtwe district.

Further studies to determine a nation-wide prevalence is recommended for appropriate action to be taken by the Family and Reproductive unit of the Ghana Health Service/Ministry of Health, Ghana. Again, it is recommended that further studies to identify any relationship between drinking during pregnancy and poor pregnancy outcomes be conducted.

Community Health Volunteers and opinion leaders such as the chiefs and clan heads as well as family heads should be educate about alcohol and its effects during pregnancy so they could exercise their authority over alcohol drinking particularly among pregnant women. They should exercise their traditional authorities to curb this societal menace during festive occasions.

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