

# Purchase of Aphrodisiacs; A Descriptive Cross-sectional Study in the Kumasi Metropolis of Ghana

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## Research

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# Abstract

Sexuality is an important part of an individual's quality of life. Reduced sexual function is common and can be treated. People search all heights and depths for substances they could use to stimulate and increase sexual desire in themselves and others. The non-prescription procurement and use of medicines have become a major challenge in Ghana. However, it is unknown how serious this situation is with regards to aphrodisiacs. This study therefore assessed the purchase and consumption of aphrodisiacs within the Kumasi metropolis. Retail pharmacies were involved in this study. Quota sampling was used to determine the number of pharmacies to be selected from each sub-metro while stratified sampling was then used to select participating pharmacies for the study. Males between the ages of 31 and 45 years purchased aphrodisiacs from pharmacies the most (56, 38.5%) and the rate of purchase of aphrodisiacs from retail outlets (104, 70.3%) is high. Aphrodisiacs were consumed to prolong erection as well as enhance pleasure. However, this practice is seen by many as inappropriate and reported by many to be associated with very serious adverse effects, with headaches being the most dominant adverse effect reported.

## Plain English Summary

Sexuality is an important part of an individual's quality of life and as such people search all heights and depths for substances they could use to stimulate and increase sexual desire in themselves and others. The acquisition of medications without the use of prescriptions is a major challenge in Ghana and the acquisition of aphrodisiacs is no exception. This study assessed the purchase and consumption of aphrodisiacs within the Kumasi metropolis. The study was carried out on randomly selected sexually active adult males (16 to 70 years old) in the Kumasi Metropolis of the Ashanti Region of Ghana using questionnaires. Attendants at retail pharmacies were also involved. A particular number of pharmacies were selected from each sub-metro for the study. Findings indicates that young people aged between 18 and 30 years usually patronize aphrodisiac more than any age group. Males between the ages of 31 and 45 years purchased aphrodisiacs from pharmacies the most (56, 38.5%) and the rate of purchase of aphrodisiacs from retail outlets (104, 70.3%) is high. Aphrodisiacs were consumed to prolong erection as well as enhance pleasure. However, this practice is seen by many as inappropriate and reported by many to be associated with very serious adverse effects, with headaches being the most dominant adverse effect reported.

## Introduction

Sexuality is an important part of an individual's quality of life (1). Reduced sexual function is common and can be treated (2). Growing up, one is made to believe that mainly it is the old who need some kind of sexual help that use aphrodisiacs. Surprisingly, the case is the opposite in recent times. Due to the numerous advertisements on sex enhancing drugs, it appears as though more Ghanaian males appear to have sexual problems; or that is the impression. These days, it is virtually awkward to go to the market or

listen to the radio and not be harassed with one aphrodisiac or the other and it even seems as though every male has jumped onto the phenomenon of aphrodisiac use, which it gets worse by the day.

Issues with men's sexuality most especially premature ejaculation and erectile dysfunction is affecting 30 to 40% of sexually active men. In a study, it was found out that 53% of males used aphrodisiacs due to premature ejaculation (3). The non-prescription procurement and use of medicines have become a major challenge in Ghana and this includes the sale of aphrodisiacs. Many questions need to be answered, such as the following: Which age groups visit pharmacies frequently to purchase aphrodisiacs? What products do they demand, and how do pharmacists respond?

A number of retail pharmacies within the metropolis were selected and information was obtained from them regarding the purchase of aphrodisiacs. The study assessed the extent of patronage of aphrodisiacs within the Kumasi metropolis, evaluating the type of aphrodisiacs that are frequently purchased, assessing the level of users, determining the level of use of aphrodisiacs, assessing the benefit of its consumption, and ascertaining the side effects present with the use of these drugs.

## **Materials And Methods**

### **Study area**

The study was conducted in Kumasi, (one of the largest metropolitan areas in Ghana and a major trading center) in the Ashanti Region of Ghana. It covers a land area of 254 km<sup>2</sup> (98 sq mi) and has a population of 2,069,350 (2013 estimation) forming 36.2% of the total population of the Ashanti Region, the third largest of 16 administrative regions. It has been divided into 10 sun-metro areas namely Batama, Kwadaso, Nhyiaeso, Asokwa, Suame, Tafo, Subin, Manhyia, Asawase and Oforikrom. The city has this geographical location: 6° 40' 0" N, 1° 37' 0" W. This area was selected for this study because it is a centralized city in Ghana and has people from various tribes and beliefs thus it would provide a varied range of opinion.

### **Study type and design**

A descriptive cross-sectional study on the subject was carried out in retail pharmacies randomly selected across the city.

### **Sampling technique and sample size determination**

The study involved patronage from retail pharmacies. According to the Pharmacy council of Ghana, Ashanti Region office, there are about registered 200 pharmacy outlets within the Kumasi metropolis. Using the modification for the Cochran Formula for sample size calculation in smaller populations, the sample size for pharmacies to be visited was calculated using the formula:

$$n = \frac{no}{1 + \frac{(no - 1)}{N}}$$

Where “no” is Cochran’s sample size recommendation = 385, N is the population size = 200 medicine outlets in the Kumasi metropolis, and “n” is the new, adjusted sample size.

Thus  $n = 385 / (1 + (384 / 200)) = 132$ . To offset possible effects of non-response, 10% of the sample size was added. The total sample size for pharmacies used in this study was 145. Stratified sampling, (a sampling technique in which the population is divided into separate groups and then a probability sample drawn from each group) was then used to select participating pharmacies for the study from the ten sub-metro areas.

### **Sample population**

The study also involved 145 retail pharmacies. A participant from each pharmacy was either Pharmacist or a Pharmacy technician. who had been in practice for not less than 3 years.

### **Pre-testing of questionnaires (Data collection tool)**

A pre-testing of 5 questionnaires for participating pharmacies was done at Oforikrom and Asokwa sub-metropolis to ascertain that the questions were clear and without ambiguity, and that it captures information required for this study appropriately to ensure validity of data (Nyarko-Sampson et al., 2017). After finding the data collection tool appropriate, it was used to carry out the data collection.

### **Data collection**

Structured questionnaire, including both close and open-ended questions on the subject was also designed to collect data from the 145 pharmacy outlets recruited pharmacies. The data collection tool evaluating the type of aphrodisiacs that are frequently purchased, assessing the level of users, determining the level of use of aphrodisiacs, assessing the benefit of its consumption, and ascertaining the side effects present with the use of these drugs, among others.

### **Data analysis**

Data was analyzed using Statistical Package for Social Scientists (SPSS version 20) (SPSS Inc IBM, USA). Graphs were drawn with Sigma Plot version 11 (SYSTAT Software INC, UK). Statistical significance was assessed using the Pearson Chi-Square statistical analysis tool using a 95% confidence interval. P-value  $\leq 0.05$  shows that there was significant variation between variables compared.

### **Purchase of aphrodisiacs**

Data from the sampled retail pharmacies showed that the rate of purchase of aphrodisiacs from retail outlets is high [104, 70.3%] (Table 1) with the majority of males [56, (38.5%)] who purchased were between the ages of 31 and 45 years (Figure 1).

**Table 1: Purchasing rate of aphrodisiacs**

	Number of individuals	Percent (%)
<b>Poor</b>	16	10.8
<b>Moderate</b>	28	18.9
<b>High</b>	50	33.8
<b>Very high</b>	54	36.5

### Type, kind and choice of aphrodisiac usually purchased

Between herbal and orthodox aphrodisiacs, the majority [77 (52%)] preferred those of orthodox origin. Similarly, majority [108 (73%)] preferred ones that had “instant” action. Effectiveness of the substance is the major factor that influenced choice (Table 2).

**Table 2: Highly patronized aphrodisiacs and what informs choice**

Variable	Number of individuals	Percent
<b>Kind of aphrodisiac preferred</b>	71	48
Herbal	77	52
Orthodox		
<b>Type of aphrodisiac preferred</b>	108	73
Instant	40	27
Maintenance		
<b>What informs choice</b>	25	16.9
Price	110	74.3
Effectiveness	13	8.8
Recommendation		

### Knowledge on side effects of aphrodisiacs

Majority [76 (51.4%)] who purchase aphrodisiacs are well informed of the possible side effects with the use of aphrodisiacs especially when used frequently. That notwithstanding, they still prefer to use them, the reason being to satisfy sexual partners and avoid being embarrassed in bed. Among the Pharmacists

or Pharmacy technician at the pharmacy retail outlets, 56 (37.8%) said that adverse effects have never been reported to them. For those to which adverse effects have been reported, headache [70, 976.1%] was the most frequently reported. Poor perfusion, priapism and hypertension were the least reported (3.3%) (Figure 2).

## Discussion

Sexual dysfunction; the insistent diminishing of a one's usual pattern of sexual interest and/or response is a relentless event and usually occurs with aging and certain disease conditions (4). This usually leads to victims purchasing and utilizing sex enhancing medications. Epidemiological studies revealed that 10 % of men above 35 years reported erectile dysfunction and 25 % of men within the same category reported occasional erectile dysfunction. This percentage climbs to 75 % after the age of 70 years (5). Meanwhile, social and medical conditions complicate age related changes in sexual response (6-8).

The study was conducted to assess the patronage of aphrodisiacs in sexually active males within the Kumasi metropolis. It was found that majority of the people who usually purchase aphrodisiacs were young people aged between 30 and 45 years (38.5%) followed by those between 18 and 30 years' age bracket. This is outside the norm as it is usually known that old men are the ones who usually require the intake of aphrodisiacs (5, 9). This drift could be because of an increase in sexual promiscuity among the youth and the recreational use of aphrodisiacs (10). People within this age category are mostly sexually active and are usually preoccupied with having exploits in sex. They are in the prime of their youth and want to have real fun. Also, this new trend of the young purchasing aphrodisiacs more frequently may be associated with the increased advertisements of aphrodisiacs on all media avenues (4).

The kind most preferred was those of orthodox origin most likely because these usually had a relatively quick onset of action as compared to those of herbal origin. Nonetheless, irrespective of the kind of aphrodisiacs preferred, the effectiveness of the agent was what influenced the choice of an aphrodisiac the most. The price, recommendation or availability does not matter. Majority (74.3%) of the participating facilities agreed that effectiveness is the major factor influencing choice of aphrodisiacs by clients. This however explains itself as people will usually want value for their money. It was observed that the pharmacists and pharmacy technicians who attended to clients usually neither ask for prescriptions nor the patients' complete health status. If a patient has some peculiar medical conditions, sexual enhancement products should be used with caution because of potential adverse effects and interactions. In a cross-sectional study carried out in a densely populated area within the Kumasi metropolis to determine the extent of patronage of sex enhancing drugs in 224 participants, 7.1% were diabetic, 4% were hypertensive diabetic, and 83.3% of all hypertensive respondents used aphrodisiac agents (11). These findings suggest that, a number of medical conditions predispose its victims to erectile dysfunction (ED) (12, 13) and therefore in provision of any treatment for ED, the health status of an individual should be taken into consideration in order to avoid complications. Recently, clients requesting for sexual drugs without prescriptions has become very common and as a result, it is imperative that pharmacists ask patients about their health condition (14). This will enable them provide

clients with appropriate advice that may increase their awareness of their condition, or probably refer them for appropriate therapy in order to prevent them from developing other serious health problems. In the event where there is no underlying condition, education on the adverse effects associated with aphrodisiac use could be done (15).

Headaches were the most dominant adverse effect present with use even though others such as palpitations, diarrhea, dizziness, and weak erection were experienced. This was more likely because most aphrodisiacs exert their effect by increasing the production of nitric oxide which causes vasodilation of vessels and hence an erection (16). Vasodilation of blood vessels within the brain is what causes the headache. The major factor that influenced a consumer's choice of aphrodisiac was its efficacy. This finding emphasizes the fact that people will always quality over quantity. That irrespective of the price or availability of a product, its efficacy will always make the most sought after product. This implies that respondents consume aphrodisiacs solely to enhance sexual prowess. The benefits participants claimed to have mostly derived from the consumption of aphrodisiacs was increased sexual performance.

## **Conclusion**

The rate of purchase of aphrodisiacs is high. Aphrodisiacs or sex enhancing drugs are highly patronized mainly to produce pleasure and sustain an erection, with the majority of consumers being within their youthful years. The major side effect commonly reported by consumers were headaches.

## **Declarations**

### **Ethics approval and consent to participate**

Participants were chosen based on their readiness to partake in the survey and had verbally consented. The objective of the study was explained to the participants and participating in this study was voluntary. Participants were assured of anonymity and secrecy of information provided. Participants were not remunerated for their participation. Ethical clearance was obtained from the College of Health Science ethical committee before the start of the study.

### **Consent for publication**

Not applicable

### **Availability of data and materials**

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### **Competing interests**

The authors declare that they have no competing interests.

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## Authors' contributions

MSN and BAA conducted the research, analyzed and interpreted the data regarding the purchase of aphrodisiacs. GAK supervised the execution of the study and YJ and was a major contributor in writing the manuscript. All authors read and approved the final manuscript.

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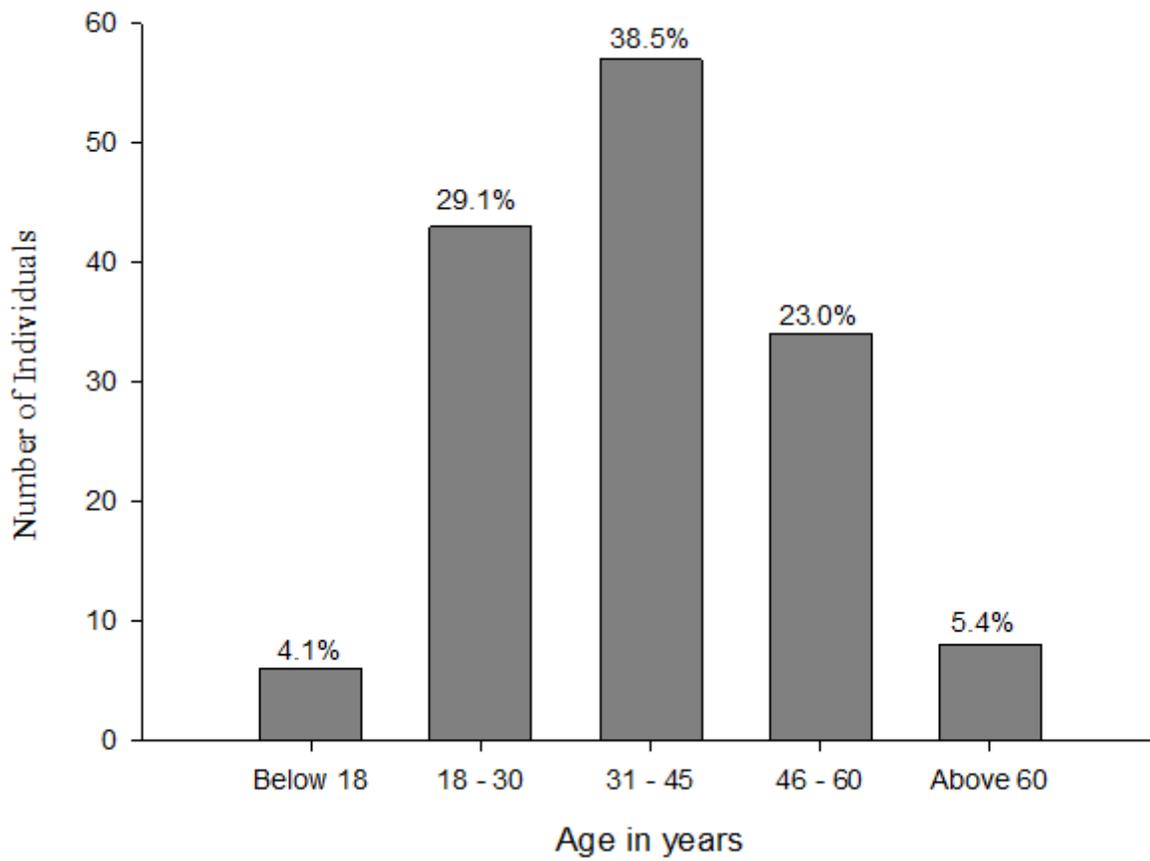
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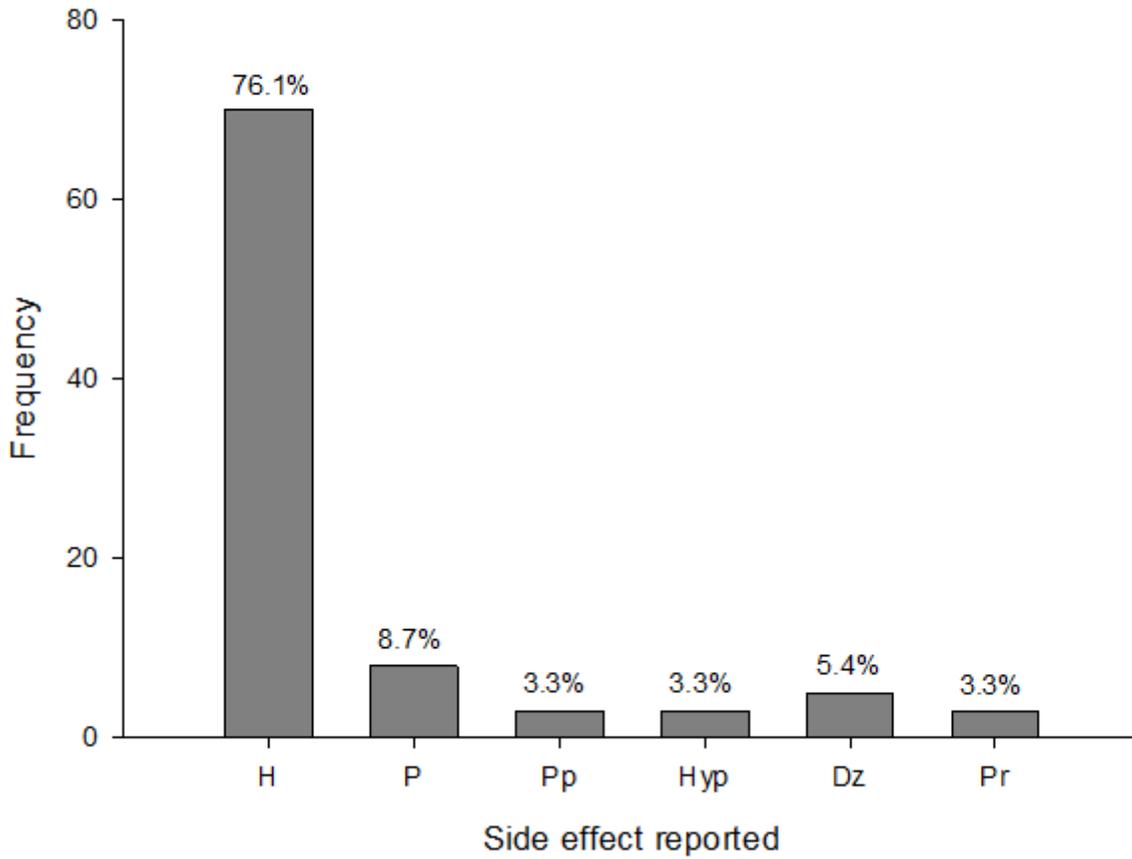
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## Figures



**Figure 1**

Age distribution of individuals who purchase aphrodisiacs from retail facilities



**Figure 2**

Side effects reported to retailers of the aphrodisiacs by users H- headache, P- palpitation, Pp- poor perfusion, Hyp- hypertension, Pr- priapism, Dz- dizziness.