

## Original Research Article

## Rising Trend of Aphrodisiac Substance Usage during Sex among Male in South-South Nigeria

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**Abstract:** Aphrodisiac substance could be drug, food or drink that increase libido, enhance sexual pleasure, induce and sustain erection thus leading to sexual satisfaction. Several people across the globe employ aphrodisiac substance to enhance their sexual performance and this has been a routine for them more especially, when meeting a new sexual partner for the first time. The aim of this study is to evaluate the Rising Trend of Aphrodisiac Substance Usage during Sex among Male in South-South Nigeria. This was a descriptive cross-sectional study involving 250 males. A well-structured questionnaire was administered to participants. The study lasted for a period of 3 months. Inclusion criteria were males between 18-47 years old. Exclusion criteria were those males that were above 47 years of age. Data were analyzed with SPSS version 25.0 and  $p < 0.05$  was significant. The results revealed that the participants were between 18 – 47 years (most of them are between 28 to 32 years) old, 48.0% had secondary level of education, 60.0% were single, 40.0% were business men, 60.0% knew aphrodisiac substance, 76.0% used aphrodisiac substance, 60.0% like using aphrodisiac substance, 76.0% always and frequently used aphrodisiac substance. This research shows that the use of aphrodisiac substance is on the increase among young men and this usage is to enhance sexual arousal and sustain erection during sexual intercourse.

**Keywords:** Rising, Trend, Aphrodisiac Substance, Usage, Sex.

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## INTRODUCTION

Erection is an important aspect of manhood that brings joy to every man who has attained puberty. Erection could save a man from committing suicide (Gbaranor, *et al.*, 2024). Weak erection is interchangeably referring to as erectile dysfunction (ED) and is a common and serious health issue among men across the globe. The continual inability to achieve and sustain erection enough to allow full and excitable sexual intercourse is known as erectile dysfunction (ED).

Erection is an important aspect of manhood and it brings joy to every man who has attained puberty. Erection can save a man from committing suicide. Weak erection has become rampant among men and this is a global threat because it can lead to several conditions (Gbaranor, *et al.*, 2024).

Male impotence can be caused by androgen deficiency in aging men, atherosclerosis, diabetes mellitus, spinal cord injury, high level of cholesterol, hypertension, prostate surgery, prostate and heart

disease, penis anatomical deformity, social and psychological conditions as unhappy marital relationship, depression, and stress (Goel and Kumar, 2020). Aphrodisiac is a drink or food that arouse sexuality. It can be categorized into three groups according to their action mode as follows: increase sexual pleasure substances, increase libido substances (arousal, sexual desire), and increase sexual potency (erection effectiveness) (Goel and Kumar, 2020). Various extracts of medicinal plants and orally active drugs such as vardenafil, sildenafil, and tadalafil are used to increase arterial blood flow for treating (ED) in southwest Asia (Goel and Kumar, 2020). Erectile dysfunction which could also be refer to as "impotence," is the repeated inability to get or keep an erection firm enough for sexual intercourse (NIH, 2003; www.impotence.org). World Health Organization 'Sexual health is fundamental to the physical or emotional health and wellbeing of individuals, couples and families and to the social or economic development of communities and countries (Kalka, *et al.*, 2018). ED affects the quality of life for both patients and partners and is associated with relationship difficulties (Jisheng, *et al.*, 2017; Rongmin, *et al.*, 2018; Kaminetsky, *et al.*, 2017; Wang and Wang, 2017).

A lot of natural substances have historically been known as aphrodisiacs in Africa and Europe, like yohimbine and the mandrake plant, as well as ground rhinoceroses' horn in the Chinese culture and Spanish fly which is actually toxic (Ang, *et al.*, 2013; Evans, 1965).

In a recent study conducted in the Boston area, 52% of men between the ages of 40 and 70 reported some degree of erectile dysfunction (ED). Enhanced sexual behavior may provide increased relationship satisfaction and self-esteem in humans (Montorsi, *et al.*, 1995). The hunt for an effective aphrodisiac has been a constant pursuit throughout history. The role of various dopaminergic, adrenergic, and serotonergic agents has been intensively examined in both human and animal studies. Some of these drugs have been considered for their potential role for the treatment of sexual dysfunction, while some others have contributed to the basic neurophysiological processes in sexual arousal (Rosen and Ashton, 1993).

Aphrodisiacs can be classified by their mode of action into three types: Those that increase libido, potency, or sexual pleasure. Various substances of animal and plant origin have been used in folk medicines of different cultures to energize, vitalize and improve sexual function, and physical performance in men, out of these very few have been identified pharmacologically (Kotta, *et al.*, 2013). These substances (aphrodisiac) range from a variety of plants, spices, and foods to synthetic chemicals (Melnik and Massimo, *et al.*, 2011; Bella and Rany, 2014).

During arousal NO synthase is activated for the release of NO from the axons of parasympathetic nerve endings in the walls of the arteries and sinusoids of the penile CC (Andersson, 2001; Burnett, 1997). NO stimulates soluble guanylate cyclase (GC) and the activated GC then catalyze the conversion of guanosine triphosphate to cyclic Guanosine Mono Phosphate (cGMP), which activates cGMP-dependent protein kinase (cGKI) and to a lesser extent protein kinase A. Activated cGKI and protein kinase A phosphorylate phospholamban, a protein that normally inhibits the  $\text{Ca}^{2+}$  pump within the membrane of the sarcoplasmic reticulum. The  $\text{Ca}^{2+}$  pump is then activated and as a result the level of free cytoplasmic  $\text{Ca}^{2+}$  is reduced, resulting in smooth muscle relaxation. In the same way, the protein kinases activate the cell-membrane  $\text{Ca}^{2+}$  pump, leading to a decreased sarcoplasmic  $\text{Ca}^{2+}$  concentration which induces a loss of contractile tone of the penile smooth muscle and an increased blood flow in cavernous body resulting in erection (De Saenz and Moncada, 1996; Hedlund, *et al.*, 2000; Somlyo and Somlyo, 1994).

Another mechanism which causes penile erection is through cyclic adenosine monophosphate pathway (cAMP). Corporal smooth muscle relaxation is mediated via cAMP. The activated membrane-bound adenylyl cyclase, which generates cAMP, it activates protein kinase A and to a lesser extent, protein kinase G. Prostaglandin E1 also increases the intracellular concentrations of cAMP in the corpus cavernosum smooth muscle cells. The generation of cAMP activates the  $\text{Ca}^{2+}$  pump and consequently, the level of free cytoplasmic  $\text{Ca}^{2+}$  is reduced, resulting in smooth muscle relaxation. Similarly, the protein kinase activates the cell-membrane  $\text{Ca}^{2+}$  pump, leading to a decreased sarcoplasmic  $\text{Ca}^{2+}$  concentration which induces a loss of contractile tone of the penile smooth muscle and increase of blood flow in the cavernous body resulting in erection (Hedlund, *et al.*, 2000; Somlyo and Somlyo, 1994; Palmer, *et al.*, 1994; Lin, *et al.*, 1995). One of the mechanisms by which cyclic nucleotides induce the relaxation of smooth muscle is through the opening of potassium ( $\text{K}^{+}$ ) channels, which leads to the efflux of  $\text{K}^{+}$  from the smooth muscle cell, down their electrochemical gradient. This results in hyperpolarization and an inhibitory effect on trans membrane  $\text{Ca}^{2+}$  flux and eventually, smooth muscle relaxation (Lee, *et al.*, 1999; Wang, *et al.*, 2000). After cessation of erotic stimuli, NO release from the parasympathetic nerves of the penis declines and the cGMP level in the smooth muscle cells falls because of a decrease in synthesis coupled with the ongoing degradation of cGMP by phosphodiesterase type 5. These muscle cells return to the more contracted state and the penis becomes more flaccid because of the reduced amount of blood in the corpora. Alteration in either psychological, hormonal, neurological, vascular, or cavernosal factors can cause some degree of ED

(Ballard, *et al.*, 1998; Bivalacqua, *et al.*, 1999; K  the, *et al.*, 2001).

## MATERIALS AND METHOD

This was a descriptive cross-sectional study involving 250 males. A well-structured questionnaire was administered to participants. The study lasted for a period of 3 months. Inclusion criteria were males between 18-47 years old. Exclusion criteria were those males that were above 47 years of age. Data were analyzed with SPSS version 25.0 and  $p < 0.05$  was significant.

### Area of the Study

The study was carried out in the South-South Areas of Nigeria. The South-South is also known as Niger Delta is one of the six geopolitical zones of Nigeria. It designates both a geographic and political region of the country's eastern coast. It comprises six states – Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers.

### Population of the Study

The population of the study comprised of males within the ages of 18 years to 47 years from South-South, geopolitical zone of Nigeria.

### Sample and Sampling Technique

The sample of the study was based on the number of males that have experienced aphrodisiac usage during sexual intercourse.

The sample collection was by simple random sampling. Sample calculation formula was done using Taro Yamene's formula. The calculated sample size is 250 out of a total of 665 participants who were recruited for the study.

The mathematical illustration for the Taro Yamane method is stated as follows:

$$n = N / (1 + N(e)^2)$$

Where:

$n$  signifies the sample size  $N$  signifies the population under study

$e$  signifies the margin error (it could be 0.10, 0.05 or 0.01)

$$\text{Therefore, } n = 665 / (1 + 665(0.05)^2)$$

$$n = 665 / (1 + 665(0.0025))$$

$$n = 665 / (1 + 1.6625)$$

$$n = 665 / 2.6625 = 250$$

Hence, sample size=250

## Instruments for Data Collection

Instrument used were questionnaires and were developed by the researcher.

### Validity of the Instrument

Face and content validity of the instrument was established for the study. Firstly, the face and content validity of the instrument was conducted by giving copies of the instrument to the researcher and other experts in medicine, public health and nursing to study the instrument and indicate what it appears to measure superficially. Content validity of the instruments was done similarly to that of the face validation. But in addition, copies of the instruments were given to experts including the topic of the study, purpose of the study with its specific objectives. The items considered relevant by the experts were the one that were included in the final version of the instrument.

### Reliability of the Instrument

To ensure the reliability of the instruments Cronbach alpha ( $\alpha$ ) technique was used. The instruments were administered on students who were not part of the sample for the study and then Cronbach alpha coefficient was used for reliability analysis.

### Method of Data Collection

The instruments were administered directly to the males in their respective states by the researcher and one research assistant, after permission has been sought from relevant stakeholders. The instruments were collected on the spot to ensure 100% retrieval.

### Method of Data Analysis

Simple percentage was used to analyze the percentage distribution of variables.

## RESULTS

The results revealed that the participants were between 18 – 47 years (most of them are between 28 to 32 years) old (Table 1), 48.0% had secondary level of education (Table 2), 60.0% were single (Table 3), 40.0% were business men (Table 4), 60.0% knew aphrodisiac substance (Table 5), 76.0% used aphrodisiac substance (Table 6), 60.0% like using aphrodisiac substance (Table 7), 76.0% always and frequently used aphrodisiac substance (Table 8). This research shows that the use of aphrodisiac substance is on the increase among young men and this usage is to enhance sexual arousal and sustain erection during sexual intercourse.

**Table 1: Age Distribution of Participants**

Age Group	Frequency	Percentage (%)
18-22 years	20	8.00
23-27 years	50	20.00
28-32 years	80	32.00
33-37 years	30	12.00
38-42 years	30	12.00
43-47 years	40	16.00

**Table 2: Educational Distribution of Respondents**

Education	Frequency	Percentage (%)
Primary	50	20.00
Secondary	120	48.00
Tertiary	80	32.00
<b>Total</b>	<b>250</b>	<b>100.00</b>

**Table 3: Marital Distribution of Respondents**

Marital Status	Frequency	Percentage (%)
Married	80	32.00
Single	150	60.00
Divorced	20	8.00
<b>Total</b>	<b>250</b>	<b>100.00</b>

**Table 4: Occupational Distribution of Respondents**

Occupation	Frequency	Percentage (%)
Farming	80	32.00
Business	100	40.00
Civil Servant	30	12.00
Student	40	16.00
<b>Total</b>	<b>250</b>	<b>100.00</b>

**Table 5: Participants who know aphrodisiac substance**

Response	Frequency	Percentage (%)
Participants who know aphrodisiac substance	150	60.00
Participants who do not know aphrodisiac substance	100	40.00
<b>Total</b>	<b>250</b>	<b>100.0</b>

**Table 6: Participants who have used aphrodisiac substance**

Response	Frequency	Percentage (%)
Participants who have used aphrodisiac substance	190	76.00
Participants who have not use aphrodisiac substance	60	24.00
<b>Total</b>	<b>250</b>	<b>100.0</b>

**Table 7: Participants who like using aphrodisiac substance**

Response	Frequency	Percentage (%)
Participants who like using aphrodisiac substance	150	60.00
Participants who do not like using aphrodisiac substance	100	40.00
<b>Total</b>	<b>250</b>	<b>100.0</b>

**Table 8: Participants who always and frequently use aphrodisiac substance**

Response	Frequency	Percentage (%)
Participants who always using aphrodisiac substance	190	76.00
Participants who do not always using aphrodisiac substance	60	24.00
<b>Total</b>	<b>250</b>	<b>100.0</b>

## DISCUSSION

Aphrodisiac substance is a substance that is well known and use among peers. The use of aphrodisiac substance is trending now and is on the increase among both single and married men across the Niger Delta area of Nigeria. Aphrodisiac substance could be drug, food or drink that increase libido, enhance sexual pleasure, induce and sustain erection thus leading to sexual satisfaction. Several people across the globe employ aphrodisiac substance to enhance their sexual performance and this has been a routine for them, more especially, when meeting a new sexual partner for the

first time. Majority of the participants use aphrodisiac substance to gain more strength and energy to sustain their erection especially when meeting a new girlfriend for the first time or when meeting a lady that gave them tough time just to last during sexual intercourse.

The study revealed that the participants were between 18 – 47 years and majority of them were between 28 to 32 years of age. This implies that young men seriously use aphrodisiac substance to improve and sustain erection during sexual intercourse. Also, majority of the participants had secondary level of education and

this could be reason why they engaged the usage of aphrodisiac substance because they do not have adequate knowledge concerning the effects from the continual usage of the said substance. This implies more knowledge about the substance were not given before they employ the service of the substance. Majority of the participants were business men (40-0%) and because they involved in difference business they may have passed through several degree of stress that may have affected their erection, thus warranted them to use aphrodisiac substance in order to get sexual desire, libido, sexual attraction and pleasure , or sexual behavior. Stress could be physiological or psychological and this could contribute to poor libido, erection and no sexual attraction.

Again, several of the participants knows aphrodisiac substance and its primarily role of inducing and sustaining erection but do not have any knowledge about the effects from the usage. Also, majority of the participants used aphrodisiac substance and they frequently use the substance for sexual purpose. Several of them like using the aphrodisiac substance. This study shows that the use of aphrodisiac substance is on the increase among young men and this usage is to enhance sexual arousal and sustain erection during sexual intercourse. This study agreed with previous study that revealed the increase attention in recent years surrounding the use of aphrodisiac drugs (Guardian. 9 February 2020). This aphrodisiac substance is gotten from plant source, spices, food or synthetic chemicals and its effects is grouped into physiological or psychological. The physiological effects arising from the use of aphrodisiac substance relax the smooth muscle thus causing increase in blood flow into the penile tissues and also affects hormone concentration while the psychological effects arising from the use of aphrodisiac substance has hallucinogenic effects that heighten sexual pleasure and sexual desire. This rising in the trend of using aphrodisiac substance has made majority of the participants to be dependence (aphrodisiac dependence). The participants use aphrodisiac substance from plant source, spices and food to improve their libido, sexual pleasure and sustain erection. Thus, this substance may not be favourable for every body and some will get the opposite effect, that is no improvement in terms of libido and such substance is known as anaphrodisiacs. The participants believed that the use of aphrodisiac substance is helpful because it stimulates their sexual desire and performance. Most of them who were not sure of themselves to actively carry out sexual activity were relieved by using aphrodisiac substance.

## CONCLUSION

The use of aphrodisiac substance is on the increase and it has become a routine for most men thus, leading to dependence. The substance is to stimulate sexual arousal, libido, pleasure, satisfaction and to maintain or sustain erection for a longer time.

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