The Prevalence of Aphrodisiac Drugs Consumption and Its Associated Factors among Married Men at Beni-Suef City, Egypt

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ABSTRACT

Aphrodisiacs in recent years have become popular with the increased prevalence of sexual problems worldwide. Aim: Determine the prevalence of aphrodisiac drugs consumption and its associated factors among the married men. Design: cross sectional design was used. Setting: Beni-Suef city. Sample: convenient sample to select 380 subjects. Tools of data collection: two tools were used; the first was a questionnaire composed of 6 parts to assess socio-demographic data, medical history, and pattern of aphrodisiac use, knowledge regarding aphrodisiac drugs, life style and erectile dysfunction, the second tool was the perceived stress scale. Results: the data revealed that 38.2% of the studied sample reported using the aphrodisiac drugs and 85.5% of them used the aphrodisiac drugs without doctor order. The data added that 45.2% have high perceived stress, 24.2 % had mild erectile dysfunction, 49.7% had unsatisfactory level of knowledge and 42.1% reported unhealthy life style. The consumption of aphrodisiac drugs was significantly associated with age, educational level, having multiple wives, level of erectile dysfunction, levels of perceived stress, level of knowledge and life style of the studied sample where P is <0.05. Conclusion: Results of the study concluded that 38.2% of the participants reported using the aphrodisiac drugs and was influenced by the socio-demographic data, level of erectile dysfunction, levels of perceived stress, level of knowledge and life style of the studied sample. Recommendation: Health education programs to improve the population awareness about sexual health and the negative consequences of self-prescribing aphrodisiac drugs.

Key words: prevalence, aphrodisiac drugs, married men, Egypt

Introduction

The general well-being and the overall quality of life of both sexes can be influenced by the sexual health. One of the most significant aspects of quality of life is proper sexual functioning, which provides a sense of psychological, physical, and social well-being. Sexual dissatisfaction is frequently linked to rage and higher incidence of marital violence (Flynn et al., 2016; Prabhakaran, Nisha and Varghese, 2018). Sexual health is defined by The World Health Organization (WHO) as "a state of physical, mental and social well-being in

relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence" (WHO, 2021).

Sexual functioning is defined as the ease with which one moves through the stages of sexual desire, arousal, and orgasm, as well as subjective pleasure with the frequency and outcome of one's own and one's partner's sexual conduct. Sexual issues are frequently caused by a complex interplay of biological/medical,

psychological, and social variables. A chronic health condition or psychiatric drug, for example, may be the cause of sexual dysfunction. In other circumstances, sexual functioning may be hampered by performance anxiety, low mood, or prior traumatic events. (Fielder, 2013). Sexual dysfunction (SD) is a sexual behaviour and sensation problem that manifests as an abnormality or lack of sexual psychology and physiological response. It's a broad concept for a variety of symptoms, including erectile dysfunction (ED), failure of sexual intercourse, and libido/desire loss. According to data, 52 percent of 40 to 70 year old men have some form of SD (Chen etal. 2019).

Aphrodisiacs (ADs) are a type of chemical that stimulates sexual desire, enjoyment, or behaviour, as well as having a high potential for treating early to moderate sexual dysfunction. By their mechanism of action, aphrodisiacs are divided into three groups: those that increase desire, those that increase sexual pleasure, and those that increase potency. AD resources abound in a wide range of plants, foods, animal products, minerals, and synthetic substances. Their chemical properties can be used to categorize them. Aphrodisiacs have been used by men even without reference to their structure as stimulants for pleasure as well as to treat sexual impairment or erectile dysfunction (Agrahari et al., 2021). Aphrodisiac drugs are used as a treatment for erectile dysfunction and excessively for recreation and sexual enhancement. The massive advertising about the aphrodisiac drugs contributed to making it a culture icon and increase the self-prescription to these drugs (Makwana et al., 2013).

There are a number of conditions linked to the usage of aphrodisiac medicines, such as age and chronic disease that contribute to a decrease in sex drive. Aphrodisiac use is becoming more popular due to social considerations. Because guys have a lot of effect on one another, the influence of friends can contribute to aphrodisiac use. The youth are always eager to put what they learn and observe into practice, therefore they experiment with aphrodisiacs. People learn about aphrodisiac and how to use it through advertisements on radio, television, and newspapers. Sexual satisfaction, good feedback from women, and retaining several sexual partners are all psychological aspects that contribute to the rise (Yidana, Deen and Manan, 2019).

The most common aphrodisiac drugs approved by The Food and Drug Association (FDA) are "avanafil (Stendra), sildenafil (Viagra), tadalafil (Cialis), and vardenafil (Levitra, Staxyn). These drugs work by relaxing muscles and boosting blood flow in the penis, making it easier to get and maintain". Retinal abnormalities, headaches, flushing, dizziness, vision problems, and nasal congestion are the most prevalent side effects. Levitra takes around 30 minutes to begin working, and its effects continue about 5 hours longer than Viagra. In your mouth, Staxyn dissolves. It has the same active component as Levitra and takes around 15 minutes to start acting. It takes around 30 minutes for Viagra to become effective, and it lasts for about 4 hours. Cialis has a substantially longer half-life, sometimes up to 36 hours. Stendra's effects can last up to 6 hours and can start working in as little as 15 minutes (Felson, 2018).

Improper use of aphrodisiac drugs can bring potential health hazards and evidence continue to mount that adverse reactions to medicines are common, yet often preventable, cause of illness, and even death is evident. Self-medication (SM) can be defined as "the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms without consultation of health care professionals". Though it was previously considered unnecessary, responsible

self-medication is regarded as an essential aspect of self-care (World Self-Medication Industry 2020).

Sexual health and education are rarely investigated in the Middle East countries, including Egypt. Sexual and reproductive health is a major public health concern that is well acknowledged. Sexual wellness is just as vital as physical and mental well-being. A wide range of sexual health care activities were reported by practice nurses. Screening programs for early detection of sexual problems, consultations, and taking sensitive histories from female and male patients are just a few examples in addition to participating in health checks and receiving sexual health education (Mitchell, 2016).

Aim of the study

Determine the prevalence of aphrodisiac drugs consumption and its associated factors among the married men at Beni-Suef city, Egypt

Research questions

1. What is the prevalence of aphrodisiac drugs use among Married Men at Beni-Suef city, Egypt?
2. What are the associated factors with the aphrodisiac use among married men in Beni-Suef city, Egypt?
3. What is the level of knowledge regarding the aphrodisiac drugs?

Subjects and method:

Design:

Cross sectional descriptive design was used

Setting:

The current study was conducted in Beni-Suef city, Egypt.

Subjects:

The sample size should be 380 according to the following formula:

$$\text{Sample size} = \frac{(Z^2) \times (p) \times (1-p)}{m^2}$$

Where:
Z = Z value (1.96 for 95% confidence level)
p = percentage picking a choice (0.50)
m = margin of error (0.05)

Sampling technique:

Researchers included 380 participants who live in Beni-Suef city through convenient sampling.

Tools of data collection

Two tools were designed by the researcher for the collection of the required data based on review of relevant literature.

Tool 1: Structured interviewing questionnaire

Part one: Socio-demographic data

It consists of 3 items, and was designed to collect data about age, educational level and numbers of wives

Part two: Medical history of the studied sample about having chronic diseases

Part three: Pattern of aphrodisiac use

Part four: Knowledge questionnaire

The knowledge questionnaire was developed by the researchers to assess the studied sample' level of knowledge regarding aphrodisiac drugs, and it composed of six items as following; definition of aphrodisiac drugs, types, indication, contraindication, side effects and complication

Scoring system:

The researchers give 3 points for correct answer, two if incomplete answer and one if don't know. The total points are summed and converted to percentage and divided to three categories, unsatisfactory (<50%), average (50 - 74%) and satisfactory if ≥75%

Part five: life style questionnaire

It developed by the researchers and composed of 12 items as sleep about 8 hours, go to sleep easily, eat five pieces of fruits and vegetables every day, decrease the sugar consumption, avoid smoking, brush and floss the teeth twice a day, practice safe sex, get 30 minutes exercise every day, etc. to assess the life style of the studied sample.

Scoring system

Each item is scored 1 for done and 0 for not. The total points are summed and converted to percentage and divided to three categories, unhealthy (<50%), average (50 - 74%) and healthy if ≥75%

Part six: The Sexual Health Inventory for Men (SHIM) Questionnaire

It adopted from (Rosen, Cappelleri and Smith, 1999) to evaluate the erectile dysfunction

Scoring system

It composed of 5 questions. Every question have 6 choices; the first choice scored 0 and the last choice scored 5 except the first question has 5 choices ; the first choice scored 1 and the last scored 5. The level of erectile dysfunction was classified as the following:

- Sever erectile dysfunction (1-7 points).
- Moderate (8-11 points).
- Mild to moderate (12-16).
- Mild (17-21 points).
- No signs (22-25 points).

The second tool: perceived Stress level questionnaire

It adopted from (Cohen, and Williamson, 1988) to measure the level of perceived stress level.

Scoring system

It composed of 10 items with 5 categories 0 for never and 4 for very often but this score should be reversed for the positive items (4, 5, 7, and 8). Total scores range from 0 to 40, with higher scores indicating higher levels of perceived stress. The levels of stress are categorized as the following; low stress (0-13 points), moderate stress (14-26 points) and high perceived stress (27-40 points).

Validity:

The face and content validity of the tools were done by five experts in community health nursing who evaluated the tools for clearance, appropriateness, applicability and comprehensiveness. According to their opinion, the researchers do some modifications

Reliability

The reliability of the structured interview to assess the total level of knowledge, and life style was assessed in the present study and the Cronbach's alpha coefficient was 0.83. Additionally the reliability of the Arabic version of the sexual health inventory for men was 0.91 as reported by (Shamloul, Ghanem and Abou-zeid, 2004). The scale to assess the perceived stress scale of the studied sample was reliable with Cronbach's alpha coefficient 0. 78 as reported by (Anwer et al., 2020).

Field work:

The researchers started the collection of data at the beginning of October 2019 and completed by the end of March 2020.

The researcher initially explains the study's goal to the participants and ensures them that any information they provide will be kept private and utilized only for the purposes of the study. The collection of data was done immediately after oral informed consent from the participants. Participants were interviewed using the structured tools. The time consumed to collection of data ranged from 15-20 minutes.

Information was collected from two maternal and child health centers at Beni-Suef city

Pilot study:

The researchers conducted the pilot study with 30 participants to ensure the tools' validity and reliability, as well as to estimate the time required to gather the data. Participants who took part in the pilot study were not included in the study's main sample.

Ethical Consideration

The ethical committee's approval was obtained prior to data collection. All research ethics principles were followed. The study's purpose and methods were discussed, and each participant's verbal agreement was obtained. The participants were assured of their right to refuse and the confidentiality of their information, as well as the fact that there are no charges associated with participating in the study.

IV- Statistical Design:

SPSS version 19 (Statistical Package for Social Studies), manufactured by IBM, Illinois, Chicago, USA, was used to arrange, tabulate, and statistically analyze the acquired data. The percentage and number distributions were calculated. To discover statistical differences between variables, the Chi square test was performed. The significance level was set at p less than 0.05.

The results

Table 1: shows the distribution of socio-demographic characteristics of studied participants and having chronic diseases. The data reveals that the age of 35.5% of the studied sample less than 30 years and 28.9 % ranged from 30-39 years. Regarding to the educational level 35.2 % of the studied sample have bachelor degree, while only 14.4% % are illiterate. As to the number of wives 27.3 % have one wife while the rest have more than one. In concern of having chronic diseases 40.7% have a chronic disease.

Figure 1: shows the frequency distribution of studied sample regarding their use of aphrodisiac drugs. The table shows that 38.2% reported using the aphrodisiac drugs

Table 2: reveals that 44.8% of those who using the aphrodisiac drugs use it ≤ 2 times per week and 34.4% use it 3-4 times per week. Regarding causes of use, the table shows that 49.6 % use it for recreation and fun, 27.5% to delay the ejaculation and 22.7% to have multiple erections. The table adds that 85.5% use the aphrodisiac drugs without medical prescription.

Table 3: shows the frequency distribution of studied sample according to their level of erectile dysfunction and stress level. The table clarifies that 59.2% have not erectile dysfunction, 24.2% have mild erectile dysfunction, 7.3% have mild-moderate erectile dysfunction and 9.2% have moderate erectile dysfunction. Regarding the stress level the table shows that 45.2% have high perceived stress while 27.1% have low stress.

Table 4: reveals the frequency distribution of studied sample according to their level of knowledge regarding aphrodisiac drugs. The data shows that 49.7% have unsatisfactory knowledge while only 21.3% have satisfactory knowledge.

Table 5: clarifies that 42.1% reported unhealthy life style, 28.4% average life style while only 29.4 % reported healthy life style.

Table 6: reveals that there are significant association between age, educational level and number of wives of the studied sample with their using to the aphrodisiac drugs P <0.05.

Table 7: reveals that there are significant differences between total level of knowledge of the studied sample and their using to the aphrodisiac drugs where p 0.000. The table shows that 74.1% of who

have satisfactory knowledge reported not using the aprhodisiac drugs. The data added that there are significant differences between total level of life style of the studied sample and their using to the aphrodisiac drugs where p 0.000. The table shows that 83.1% of who have healthy life style reported not using the aphrodisiac drugs.

Table 8: reveals that there are significant differences between level of erectile dysfunction among the studied sample and their using to the aphrodisiac drugs where p 0.00001. The table shows that 83.6 % who have normal erectile function reported not using the aphrodisiac drugs. The data added that there are significant differences between total level of perceived stress of the studied sample and their using to the aphrodisiac drugs where p 0.00001. The table shows that 84.4% who have low stress level reported not using the aphrodisiac drugs.

Table (1) frequency distribution of studied sample regarding their socio demographic data and having chronic diseases (380)

Items	N	%
Age		
Less than 30	135	35.5
30-39	110	28.9
40-49	70	18.4
≥50	65	17.1
Education		
Illiterate	55	14.4
Read and write	90	23.6
Secondary education	105	27.6
Bachelor degree	130	35.2
Number of wives		
1	275	72.3
>1	105	27.6
Having chronic diseases		
Yes	155	40.7
No	225	59.3
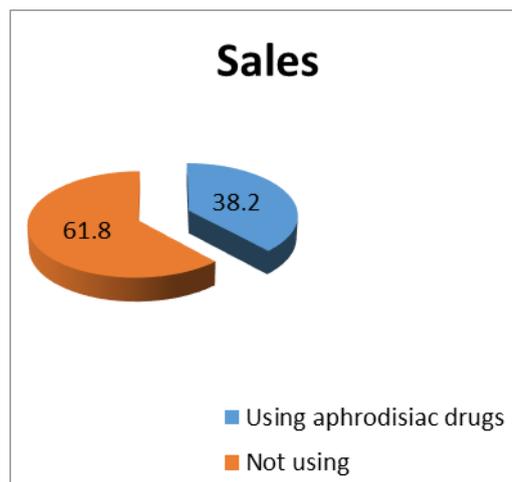
Figure (1`) frequency distribution of the studied sample regarding use of aphrodisiac drugs

Table (2) frequency distribution of the studied sample regarding pattern of using the aphrodisiac drugs (145)

Items	N	%
Frequency of use		
≤ 2 times per week	65	44.8
3-4 times per week	50	34.4
≥5 times per week	30	20.6
Causes for using aphrodisiac drugs		
Recreation and fun	72	49.6
To delay the ejaculation	40	27.5
To have multiple erection	33	22.7
Prescribing		
Self-prescribing	124	85.5
Under medical observation	21	14.5

Table (3) frequency distribution of studied sample according to their level of erectile dysfunction and stress level

Items	N	%
Level of erectile dysfunction		
Normal	225	59.2
Mild	92	24.2
Mild-moderate	28	7.3
Moderate	35	9.2
Level of stress		
Low stress	103	27.1
Moderate stress	105	27.6
High perceived stress	172	45.2

Table (4) frequency distribution of studied sample according to their level of knowledge regarding aphrodisiac drugs

Items	N	%
Satisfactory	81	21.3
Average	110	28.9
Unsatisfactory	189	49.7

Table (5) frequency distribution of studied sample according to their level of healthy life style (380)

Items	N	%
Healthy	112	29.4
Average	108	28.4
Un healthy	160	42.1

Table (6) association between socio-demographic data and having chronic diseases with the using of aphrodisiac drugs (380)

Items	N	Using (145)		Not using (235)		X2	P
		N	%	N	%		
Age							
Less than 30	135	31	22.9	104	77.1	55.9	0.00001
30-39	110	29	26.3	81	73.7		
40-49	70	47	67.1	23	32.9		
≥50	65	38	58.4	27	41.6		
Education							
Illiterate	55	37	67.2	18	32.7	38.1	0.00001
Read and write	90	45	50	45	50		
Secondary education	105	30	28.5	75	71.4		
Bachelor degree	130	33	25.3	97	74.6		
Number of wives							
1	275	77	28	198	72	43.5	0.00001
>1	105	68	64.7	37	35.2		
Having chronic diseases							
Yes	155	60	38.7	95	61.2	0.03	0.8
No	225	85	37.7	140	62.2		

Table (7) association between the total level of knowledge regarding aphrodisiac drugs and life style of the studied sample and their use to aphrodisiac drugs (n=380)

Items	Aphrodisiac use				X2	P
	Using (145)		Not using (235)			
	N	%	N	%		
Knowledge						
Satisfactory (81)	21	25.9	60	74.1	6.5	0.03
Average (110)	45	40.9	65	59.1		
Unsatisfactory (189)	79	41.7	110	58.3		
Life style						
Healthy (112)	19	16.9	93	83.1	73.8	0.00001
Average (108)	25	23.1	83	76.8		
Un healthy (160)	101	63.1	59	36.9		

Table (8) association between level of erectile dysfunction and stress level of the studied sample and their use to aphrodisiac drugs

Items		Using		Not using		X2	P
		N	%	N	%		
Level of erectile dysfunction							
Normal	225	37	16.4	188	83.6	112.10	0.00001
Mild	92	60	65.2	32	34.8		
Mild-moderate	63	48	76.2	15	23.8		
Level of stress							
Low stress	103	16	15.6	87	84.4	61.8	0.00001
Moderate stress	105	27	25.7	78	74.3		
High perceived stress	172	102	59.3	70	40.7		

Discussion

Aphrodisiacs are substances that arouse the sexual instinct, induce venereal desire and increase the sexual pleasure and performance (Ali et al., 2013). Aphrodisiac in recent years becomes a popular with the increased prevalence of sexual problems worldwide and the incidence of the problem is predicted to rise over 320 million in 2025 globally (Bhagavathula et al.,2016). The current study aimed to determine the prevalence of aphrodisiac drugs consumption among the married men and the associated factors. The results indicated that among all studied sample who had participated in the current study, 38.2% of participants had used the aphrodisiacs. The results of the current study were supported by the study of Manortey, (2018) who reported that about half of the participants (53%) ever using Aphrodisiacs, also a study investigated the indiscriminate use of sex enhancing products among Ghanaians, showed 61% of males were using Aphrodisiacs (Danquah, 2011), Moreover, high usage has been reported by Ahmed et al. , (2017). A study by Makwana et al., (2013) showed a lower prevalence (26%) in an online based survey. The variation may be because these drugs are sold in Egypt without prescription.

The results revealed that there are a significant association between socio demographic data like age, educational level and number of wives of the studied sample with their using to the aphrodisiac drugs P <0.05. Regarding to age, the most (67.1%) of aphrodisiacs users their ages were from 40 to 49 years old, the results of the current study not supported by Nyarko et al., (2021) who investigated demographics and sexual characteristics of sex-enhancing medication users and found that most of sex enhancing medication users were aged from 31to 45years. Moreover, Chowdhury et al., 2018 found a significant association between age and use of herbal aphrodisiac. This

variations may be because cultural and educational factors, which encourage men to explore and experiment such medications.

Regarding to the educational level, the current study revealed the higher the level of education the less the usage of aphrodisiacs. This may be due to educated people have more access to information from different sources related to possible side effects and complications of the aphrodisiac drugs which will affect their use. The finding was in line with study conducted by Manortey, et al., (2018) found that the individual using aphrodisiac decreased with higher educational attainment, but the result contradict other study conducted about demographics and sexual characteristics of sex-Enhancing medication users which revealed a high consumption of sex enhancing medications among highly educated males (Ahmed, et al., (2017).

The result also indicated that there are significant associations between numbers of wives of the studied sample with their using to the aphrodisiac drugs. It showed that the participants who have more than one wife more likely using these drugs, in the same line (Atuobi- Bediako, 2019) found that participants with two or more sexual partners were more likely to be aphrodisiacs users compared to those with one partners. Makwana et al., (2013) also, reported that 69% of aphrodisiacs users had more than one sexual partner. The study showed no association between persons having chronic disease and their usage of the aphrodisiacs. The results of the current study not supported by (Atuobi- Bediako, 2019) who reported that the absence of chronic diseases is a protective factor. This variation may be because the use of aphrodisiac among the studied sample is associated with the culture and recreation. These results could be

explained by their awareness about the side effects of these drugs on their chronic conditions.

The study revealed that 44.8% of those who using the aphrodisiacs, use it ≤ 2 times per week and 34.4% use it 3-4 times per week and 20.6% use it ≥5 times per week, and regarding to the reason for using it, the result added that 49.6 % using the aphrodisiac for recreation and fun, 27.5% to delay the ejaculation and 22.7% to have multiple erection, moreover 85.5% use the Aphrodisiacs without medical prescription. The study was consistent with a study conducted by Manortey, et al., (2018), found that 53% of the respondents reported ever using aphrodisiacs, with (42%) out of the 53% being one time users whilst the rest currently use aphrodisiacs.

The results of the current study revealed that 38.2% of the studied sample reported using the aphrodisiac drugs and 85.5% of them used the aphrodisiac drugs without doctor order. In the same line Nyarko et al., (2021) who reported that the majority of men purchased the aphrodisiacs without presription. The study consistent with a study by Alahdal et al., (2008) which investigated the use pattern of phosphodiesterase type 5 inhibitors (PDE5i) in Saudi Arabia, the results showed that 80% of respondents had been taking sex-enhancing medications (S-EM) without medical consultation, The finding also in line with study conducted in Ghana which revealed that family and friends played a vital role in man decision to use aphrodisiacs Atindanbila, (2014).

The results revealed that there are significant associations between level of erectile dysfunction among the studied sample and their using to the aphrodisiacs, Moreover, the data added that there are significant associations between level of perceived stress of the studied sample and their using to the aphrodisiacs, 59.3% who have high stress level

reported using the aphrodisiacs. In the same line study by Mensah, (2018), revealed that the presence of sexual problems and the stressful conditions influences the use of aphrodisiacs. On the other hand (Atuobi- Bediako, 2019) reported that about 61% of the aphrodisiac users had no sexual problems indicating recreational use.

The data also revealed that there are significant differences between total level of knowledge of the studied sample and their using to the aphrodisiac drugs. The data also added that there are significant differences between total level of life style of the studied sample and their using to the aphrodisiac drugs. The results of the current study were supported by Mensah, (2018) who reported that the high level of knowledge and the healthy life style are protective factors from using the aphrodisiacs. Similar results have also reported that respondents who have level of knowledge on the associated side effects of usage the aphrodisiac drugs were 0.8 times less likely to use the drug compared to their counterparts who admitted having no knowledge (Manortey, et al., 2018). This might be so because participants who have satisfactory level of knowledge regarding aphrodisiacs and healthy life style might enhance their awareness and attitudes and understand the risks, side effects and complications of these medications.

Conclusion

Results of the study concluded that 38.2% of the participants reported using the aphrodisiac drugs and 63% have mild- moderate erectile dysfunction, 49.7% have unsatisfactory knowledge regarding to aphrodisiac drugs., 42.1% reported unhealthy life style and 45.2% have high perceived stress and there were a significant association between their socio demographic data, level of knowledge, levels of erectile dysfunction, level of stress and medical history of the studied sample and life style with their using to the aphrodisiac drugs.

Recommendation:

Prevent the purchasing of aphrodisiac drugs from pharmacies without medical prescription

Health education programs to improve the population awareness about sexual health and the negative consequences of self-prescribing aphrodisiac drugs.

Further studies at different communities aimed to measure the prevalence of aphrodisiac consumption and the associated factors.

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