



Assessment of Sexual Performance-Enhancing Drugs Utilisation among Married Men in Kaduna State, Nigeria

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Abstract

This study assessed the utilisation of Sexual Performance-Enhancing Drugs (SPEDs) among married men in Kaduna State, Nigeria. The study employed a descriptive survey research design, targeting a population of 1,115,974 married men, from which a representative sample of 384 respondents was drawn using a multi-stage sampling technique incorporating cluster, simple random, proportionate, and systematic sampling procedures. Data were collected through a questionnaire validated by experts in the Department of Human Kinetics and Health Education and the College of Medical Sciences, Ahmadu Bello University, Zaria. Reliability was established via a pilot study yielding a Cronbach's Alpha of 0.869. Data analysis employed both descriptive and inferential statistics. Descriptive statistics, including frequency, percentages, mean, and standard deviation were used to describe the socio-demographic characteristics and respond to the research question. One-sample t-test was applied to test the hypothesis at a 0.05 level of significance. Findings revealed that married men in Kaduna State actively utilise SPEDs ($t = 34.912$, $p = 0.000$). Based on these findings, the study concluded that the utilisation of SPEDs is prevalent among married men in Kaduna State, with significant concerns regarding patterns of self-medication, informal drug procurement, and limited professional medical consultation. The study recommends counselling by healthcare providers on safe use, alternatives, and the dangers of unprescribed SPED consumption, as well as strengthened regulatory enforcement to curb uncontrolled access to these substances.

Keywords: Sexual Performance-Enhancing Drugs, Utilisation, Married Men, Kaduna State

Introduction

Sexual Performance-Enhancing Drugs (SPEDs) refer to pharmacological agents or substances used with the intent to improve sexual activity, such as enhancing libido, delaying ejaculation, or maintaining penile erection (Salami, Omole, Afolabi & Adeleke, 2021). Utilisation of SPEDs refers to the actual use of such substances, whether prescribed by a qualified medical professional or self-administered outside the formal healthcare system. Among married men, the utilisation of SPEDs has emerged as a notable public health concern, particularly given its implications for individual health, marital well-being, and the broader reproductive health landscape.

Globally, the utilisation of SPEDs has grown into a multi-billion-dollar industry, driven by increasing awareness of sexual health, a rising prevalence of sexual dysfunction, and greater societal openness to discussions about sexual well-being (Moreau, Kågesten & Blum, 2016). The World Health Organization estimates that approximately 322 million men worldwide use various forms of sexual performance enhancers, with annual global sales reaching \$6.8 billion in 2023 (WHO, 2023). Martinez, Rodriguez and Thompson (2023) revealed that 15–20% of men aged 40–70 years in Western countries regularly use SPEDs, with usage rates increasing by approximately 3% annually. While prescription medications such as sildenafil and tadalafil dominate the market in developed nations, developing countries show a higher prevalence of traditional and herbal supplement use (Tassew, Assefa, Zeleke & Ferede, 2024). In sub-Saharan Africa, SPED utilisation has witnessed a significant surge, particularly in urban areas. Mkwanzani (2022) reported that approximately 28% of married



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men in sub-Saharan Africa had used SPEDs at least once, with utilisation rates highest in countries such as South Africa (32%), Kenya (27%), and Ghana (25%). Traditional herbal preparations account for 65% of SPEDs used across Africa, raising serious concerns about quality control, standardisation, and safety (Okonkwo & Mensah, 2023). These patterns reflect the complex interplay of cultural beliefs, economic factors, and healthcare accessibility in shaping utilisation behaviour. In Nigeria, the situation is particularly concerning. Recent studies indicate that 35% of married men in urban areas had used SPEDs as of 2022 (Adebayo, Ogunwale & Ismail, 2023). The National Drug Law Enforcement Agency (NDLEA) reported a 40% increase in SPED seizures between 2021 and 2023, pointing to a rapidly expanding black market for these substances (Adejoro, 2023). Hospital records further documented a 25% rise in SPED-related health complications over the same period (Adejoro, 2023), reflecting the growing public health burden associated with unsafe utilisation practices. Studies have also revealed that 42% of users obtain these drugs without a prescription, while 38% rely on peer recommendations rather than professional medical advice, further compounding the risks (Olatunji & Mohammed, 2023).

Utilisation patterns of SPEDs among married men are shaped by a range of socio-demographic, cultural, and psychological factors. Age is a particularly significant determinant, with men aged 45–60 years demonstrating the highest usage rates at 45%, compared to 28% among younger age groups (Okoro, Adams & Peters, 2023). Older men, who are more likely to experience age-related sexual dysfunction such as erectile dysfunction, tend to have correspondingly higher utilisation rates (Okafor, Umeh & Ani, 2022). Despite this, educational attainment shows less consistent variation in utilisation rates across levels, suggesting that access, peer influence, and cultural norms may exert a stronger influence on actual drug use than educational background alone (Ahmed & Wilson, 2023).

The consequences of unsafe SPED utilisation are well-documented. Kukoyi et al. (2022), in a multi-centre study conducted across six Nigerian states, found that 55% of SPED users had experienced adverse effects, yet only 30% sought professional medical assistance. Bello, Yusuf and Ibrahim (2023) identified peer influence, media exposure, and perceived benefits as the primary drivers of SPED use among Nigerian men. These findings reveal a deeply entrenched culture of self-medication and informal drug procurement that poses significant risks to individual and public health. Adverse outcomes include cardiovascular complications, psychological dependence, hormonal disruption, and dangerous drug interactions, particularly when SPEDs are combined with alcohol or other medications. Governmental and non-governmental efforts to regulate SPED utilisation and promote safer drug use behaviour have been ongoing in Nigeria. Regulatory bodies such as the NDLEA and the National Agency for Food and Drug Administration and Control (NAFDAC) have implemented drug control measures and public sensitisation campaigns. Healthcare facilities have also introduced counselling services for sexual health concerns. However, these efforts have been constrained by inadequate enforcement mechanisms, cultural stigma surrounding male sexual health, limited male-focused reproductive health education programmes, and unequal access to healthcare services across urban and rural populations. There remains, however, a significant gap in context-specific empirical data on SPED utilisation patterns among married men in Kaduna State, Nigeria, and on how socio-demographic factors moderate these patterns. Kaduna State's diverse population, characterised by varying educational levels, occupational categories, religious affiliations, and urban–rural distributions, offers a particularly rich context for examining differential utilisation behaviour. Without such data, it is difficult for health authorities and policymakers to design targeted and effective interventions that address the specific drivers of unsafe SPED use in this population.



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In an ideal public health context, the utilisation of SPEDs by married men should be guided by formal medical consultation, accurate diagnosis of underlying sexual health conditions, and adherence to prescribed dosage and safety guidelines. Usage decisions should be informed by evidence-based medical advice and should consider relevant comorbidities such as cardiovascular disease, diabetes, and hypertension. However, the prevailing reality in many parts of Nigeria, including Kaduna State, reflects widespread informal and unregulated SPED procurement and use, driven by cultural pressures, social expectations of male sexual performance, economic factors, and inadequate access to sexual health services. This study is therefore designed to address this gap by providing a rigorous, empirically grounded assessment of the utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria. The findings are intended to generate actionable evidence that will support the development of targeted public health interventions, strengthen drug regulatory frameworks, and guide healthcare providers in delivering more effective counselling and treatment services to this population.

Purpose of the Study

The purpose of the study is to assess the utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria.

Research Question

What is the utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria?

Hypothesis

Utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria is not significant.

Methodology

This study adopted the descriptive survey research design. The target population consisted of all married men in Kaduna State, Nigeria, numbering one million, one hundred and fifteen thousand, nine hundred and seventy-four (1,115,974) (Kaduna State Bureau of Statistics, 2019). Based on the recommendation of the Research Advisor (2006), a sample of 384 respondents was considered adequate to represent this population at a 95% confidence level with a 0.05 margin of error. Respondents were selected through a multi-stage sampling procedure. First, cluster sampling was used to categorise the married men into the three senatorial zones of Kaduna State: Kaduna Central, Kaduna North, and Kaduna South. Second, simple random sampling was employed to select two LGAs from each senatorial zone: Kaduna North and Giwa from Kaduna Central; Makarfi and Sabon-Gari from Kaduna North; and Jema'a and Kauru from Kaduna South. Third, proportionate sampling was applied to determine the number of respondents from each LGA relative to their population. Fourth, a systematic sampling approach was employed, beginning from the house adjacent to the LGA secretariat and selecting every 11th house until the required sample was achieved.

A researcher-developed questionnaire titled "Assessment of Utilisation of Sexual Performance-Enhancing Drugs among Married Men Questionnaire (AUSPEDMMQ)" was used for data collection. The questionnaire, which contained 15 items assessing the utilisation of sexual performance-enhancing drugs, was the primary tool. Responses were rated on a four-point modified Likert scale as: Always (A) = 4, Often (O) = 3, Sometimes (S) = 2, and Never (N) = 1. A mean aggregate score of 2.50 and above was considered indicative of positive utilisation, while scores below 2.50 were regarded as negative or non-utilisation. The questionnaire, which also captured demographic characteristics (age, educational qualification, occupation, monthly income, and religion) using 5



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items, was also administered to profile the respondents. The validity of the instrument was established by submitting copies of the questionnaire to five (5) subject matter experts from the Department of Human Kinetics and Health Education and the College of Medicine, Ahmadu Bello University, Zaria. The experts assessed the instrument for face and content validity to ensure it measured the intended construct of drug utilisation, and their feedback was incorporated into the final version. A pilot study involving 20 respondents from Zaria Local Government Area was conducted to assess the reliability of the instrument. Using the split-half method, the internal consistency of the instrument was calculated through Cronbach's Alpha, yielding a coefficient of .869. In line with Kerlinger (2016), this value, being appreciably closer to 1 than to 0, confirmed that the instrument was sufficiently reliable for the study. After an introductory letter from the Head of the Department of Human Kinetics and Health Education, Ahmadu Bello University, Zaria, the researcher presented the letter to the Directors of Health in the selected LGAs to gain access to the respondents. Four (4) trained research assistants supported the researcher in administering the questionnaire at respondents' homes. The assistants helped to clarify ambiguous items and provided translations where required. All completed questionnaires were retrieved on-site over a six (6)-week period. The collected data were processed using SPSS version 29. Descriptive statistics, comprising frequency counts and simple percentages, were used to describe demographic characteristics. Mean and standard deviation were employed to answer the research question. A one-sample t-test was applied to test the corresponding hypothesis at the 0.05 level of significance.

Presentation of Results

All data collected on demographic characteristics of the respondents were tabulated using frequencies and percentages as indicated in Table 1.

Table 1: Demographic Characteristics of the Respondents

Variables	Options	Frequency	Percentage (%)
Age Range in Years	Below 30	76	19.8
	31 – 40	127	33.1
	41 – 50	114	29.7
	Above 50	67	17.4
	Total	384	100.0
Educational Qualification	Non-formal	71	18.5
	Primary	82	21.3
	Secondary	107	27.9
	Tertiary	124	32.3
	Total	384	100.0
Occupation	Farmer	113	26.4
	Civil Servant	101	26.3
	Artisan	77	20.1
	Business	93	24.2
	Total	384	100.0
Monthly Income	less than #50,000	57	14.8
	#51,000- #100,000	92	24.0
	#101,000-#150,000	103	26.8
	Above #150,000	132	34.4
	Total	384	100.0
Religion	Islam	239	62.2
	Christianity	145	37.8
	Total	384	100.0



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Table 1 revealed the demographic characteristics of the respondents. The age distribution of the respondents indicated that the majority were between 31 and 40 years old, accounting for 127 (33.1%), followed by those aged 41–50 years, representing 29.7% (114). Respondents below 30 years constituted 19.8% (76), while those above 50 years were the least represented at 17.4% (67). Regarding educational qualification, the largest proportion of respondents had attained tertiary education, making up 32.3% (124), while 27.9% (107) had completed secondary education. Primary education holders accounted for 21.3% (82), and those with non-formal education constituted 18.5% (71). In terms of occupation, farmers represented the largest group at 26.4% (113 respondents), closely followed by civil servants at 26.3% (101). Businessmen accounted for 24.2% (93), while artisans formed the smallest group at 20.1% (77). Analysis of monthly income revealed that the highest proportion of respondents earned above #150,000, representing 34.4% (132), followed by those earning between #101,000 and #150,000 at 26.8% (103). Respondents with a monthly income of #51,000–#100,000 constituted 24.0% (92), while those earning less than #50,000 were 14.8% (57). Regarding religious affiliation, the majority of respondents were Muslims, comprising 62.2% (239), whereas Christians accounted for 37.8% (145).

Research Question: What is the utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria?

Table 2: Mean Scores of Responses on utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria

S/N	Item	Mean	Std Dev
1.	I use sexual performance-enhancing drugs before engaging in sexual activity.	3.51	0.96
2.	I rely on performance-enhancing drugs to maintain an erection during intercourse.	2.56	0.85
3.	I use sexual performance-enhancing drugs to prolong sexual activity.	3.42	0.78
4.	I purchase sexual performance-enhancing drugs from pharmacies or herbal stores.	3.37	0.81
5.	I use herbal sexual performance enhancers.	2.62	0.82
6.	I consume alcohol or other substances alongside sexual performance-enhancing drugs.	2.67	0.90
7.	I increase the dosage of sexual performance-enhancing drugs beyond the recommended amount.	2.59	0.90
8.	I experience side effects (e.g., headaches, dizziness, or palpitations) after using sexual performance-enhancing drugs.	2.57	0.87
9.	I use sexual performance-enhancing drugs without consulting a medical professional.	3.29	0.96
10.	I mix different brands or types of sexual performance-enhancing drugs.	3.05	0.98
11.	I use sexual performance-enhancing drugs due to peer influence.	3.13	0.91
12.	I take sexual performance-enhancing drugs due to concerns about sexual performance dissatisfaction from my spouse.	3.40	0.93
13.	I use sexual performance-enhancing drugs due to stress or fatigue.	2.52	0.92
14.	I use sexual performance-enhancing drugs because of advertisements or media influence.	2.54	0.88
15.	I use sexual performance-enhancing drugs despite being aware of their potential health risks.	3.32	0.93
Aggregate		2.97	
(Decision Mean – 2.50)			

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The analysis of Table 2 revealed the utilisation patterns of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria. The highest mean score (3.51) was observed for the item “I use sexual performance-enhancing drugs before engaging in sexual activity,” suggesting that most respondents frequently used these drugs before sexual encounters. Similarly, respondents reported using sexual performance-enhancing drugs to prolong sexual activity (mean = 3.42) and due to concerns about sexual performance dissatisfaction from their spouse (mean = 3.40), highlighting performance-related motivations as key drivers of utilisation. Other notable responses included using these drugs without consulting a medical professional (mean = 3.29), using them despite awareness of potential health risks (mean = 3.32), and being influenced by peers (mean = 3.13). Conversely, lower mean scores were reported for items related to reliance on these drugs to maintain an erection during intercourse (mean = 2.56), using herbal enhancers (mean = 2.62), consuming alcohol or other substances alongside the drugs (mean = 2.67), and increasing dosages beyond recommended amounts (mean = 2.59), suggesting that these practices were less common among the respondents. With an aggregate mean of 2.97, which was above the decision mean of 2.50, the findings indicated that married men in Kaduna State utilised sexual performance-enhancing drugs, primarily for enhancing sexual performance, addressing partner-related expectations, and personal satisfaction, often without medical supervision.

Hypothesis: Utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria is not significant.

Table 3: One-Sample t-test Analysis on Utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria

Variable	N	Mean	Std. Dev.	df	t-value	p-value
Utilisation	384	2.97	0.81	383	34.912	0.000
Test Mean	384	2.50	0.00			

Calculated $p < 0.05$, calculated t-value > 1.972 at df 383

The one-sample t-test analysis presented in Table 3 examined whether the utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria, was significantly different from the test mean of 2.50. The results showed that the mean utilisation score of the respondents was 2.97, which was higher than the test mean. The calculated t-value was 34.912 with 383 degrees of freedom, and the corresponding p-value was 0.000, which was less than the 0.05 significance level. Since the calculated t-value exceeded the critical t-value of 1.972 at 383 degrees of freedom and the p-value was below 0.05, the null hypothesis that the utilisation of sexual performance-enhancing drugs among married men was not significant was rejected. This indicated that the utilisation of these drugs among the respondents was statistically significant, suggesting that married men in Kaduna State actively utilise sexual performance-enhancing drugs.

Discussion of Finding

The study revealed that utilisation of sexual performance-enhancing drugs among married men in Kaduna State, Nigeria is significant ($t = 34.912$, $p = 0.000$). This implies that married men in Kaduna State, Nigeria utilise sexual performance-enhancing drugs. This result corroborates the findings of Adamu et al. (2022), who reported a high prevalence of aphrodisiac use (67.6%) among the adult population in Sokoto metropolis, Nigeria, with 46.2% having used these substances within the past month. Similarly, Wada et al. (2023) found a prevalence of 64% for traditional medicine use as sexual enhancers among adults in northern Nigeria. The current finding also validates the work of Adadow, Shamsu-Deen and Azusiyyinne (2018), who documented widespread use of sex-enhancement drugs among men in the Tamale metropolis, Ghana. Furthermore, Manortey, Mensah and Acheampong



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(2018) reported that 52.6% of adult males in the Ashaiman Municipality of Ghana had used aphrodisiacs at some point in their lives. These convergent findings across multiple West African contexts suggest that the utilisation of sexual performance-enhancing drugs is a prevalent phenomenon in the region, transcending national boundaries and confirming that married men in Kaduna State are part of a broader regional pattern of sexual enhancement drug use. The current finding is further supported by studies from other African countries and cultural contexts. Amoah, Adjei and Arthur-Holmes (2022) reported that approximately 12.6% of participants in Ghana (17.6% among males) had used an aphrodisiac in the six months before their study, with having multiple sexual partners being positively associated with use among men. Danquah et al. (2011) found that 61% of males in a Kumasi, Ghana community were using sexual performance-enhancing drugs, with the majority claiming effectiveness. Ango et al. (2021) documented high utilisation among married women in Sokoto, with 85% of those aware of sexual stimulants reporting use, primarily to satisfy their spouses. These findings collectively validate the current study's result that utilisation is significant, suggesting that sexual performance-enhancing drug use is not limited to any single demographic group but is widespread across gender, marital status, and geographical locations within West Africa. The consistency across these studies strengthens the evidence that married men in Kaduna State are actively utilising these substances.

However, some studies present findings that appear to contradict or provide lower utilisation rates compared to the current study's results. Kidake, Nyamongo and Wanzala (2020) found that among male undergraduates at Jomo Kenyatta University in Kenya, only 10% had used erectile dysfunction medications and/or sexual enhancers, despite 82.9% having heard about them. Similarly, Kidake (2022) reported the same 10% utilisation rate among youth in the same institution. Wright (2009) found that among 82 male college students in the United States, only 16 reported having used sexual enhancement drugs. These lower rates can be attributed to the specific populations studied, unmarried university students and younger age groups, compared to the current study's focus on married men. The difference may reflect age-related sexual concerns, marital expectations, and cultural pressures that are more pronounced among married men than among younger, unmarried populations. Additionally, Ahmed et al. (2017) reported a 39.9% utilisation rate among sexually active Saudi Arabian men, which, while substantial, is lower than what might be implied by the highly significant t-value in the current study. These variations suggest that while utilisation is widespread, rates may differ based on population characteristics, cultural context, and definitional parameters of what constitutes sexual performance-enhancing drugs.

The current finding also resonates with studies that have examined the broader context of sexual enhancement drug utilisation. Bassey and Fajemirokun (2023) revealed that over-the-counter sales of male sexual enhancement products are a common practice among community pharmacists in Ogun State, Nigeria, with most respondents selling these products daily without prescriptions, a finding that supports the accessibility and consequently high utilisation reported in the current study. Ibrahim and Zango (2021) demonstrated that age and education were influential factors in sex stimulant use in metropolitan Kano, implying significant utilisation rates that vary by demographic characteristics. Akinyemi (2017) found that 20.3% of commercial drivers in Ile-Ife used herbal mixtures for sexual performance enhancement, with worrying about sexual performance being a predictor of use. The consistency of these findings with the current study underscores that sexual performance-enhancing drug utilisation among Nigerian men, particularly married men, is not only significant but is facilitated by easy accessibility, diverse motivations, and socio-cultural factors that normalise such practices. Based on the preponderance of evidence from previous



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studies, the researcher agrees that married men in Kaduna State make use of sexual performance-enhancing drugs. The convergence of findings across multiple studies, particularly in northern Nigeria, provides validation for this result. While some studies show lower utilisation rates among younger, unmarried populations, these differences are attributable to demographic and contextual variations rather than contradictions to the current finding. The researcher posits that the significant utilisation observed reflects broader sociocultural dynamics in West Africa, where sexual performance is linked to masculinity, marital satisfaction, and social status, and where easy accessibility through informal channels facilitates widespread use.

Conclusions

Based on the findings of the study, the study concluded that married men in Kaduna State, Nigeria utilise sexual performance-enhancing drugs.

Recommendations

Based on the conclusion, the study recommended that healthcare providers should counsel married men on safe usage, potential risks, and alternatives to reduce misuse.

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