

EFFECT OF HEALTH EDUCATION INTERVENTION ON KNOWLEDGE OF DRUG ABUSE PREVENTION STRATEGIES AMONG MARRIED WOMEN IN KADUNA STATE, NIGERIA

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Abstract

The study assessed effect of health education intervention on knowledge of drug abuse prevention strategies among married women in Kaduna state, Nigeria. Two objectives, research questions and hypothesis were drafted. A quasi pre-test, post-test experimental design was used. The population of the study comprised of 10, 088,312 women of child bearing age in Kaduna state Nigeria. A sample size of sixty (60) participants were selected for this study. A multi-stage sampling procedure involving simple random, purposive and convenient sampling techniques were used to select participants for the study. Effect of health education intervention on knowledge of drug abuse prevention strategies (EHEIPKDAPS) questionnaire was used as instrument for data collection. Spearman brown prophecy formula was used to analyze the data, a reliability index value of 0.87 was obtained, which means that the instrument is reliable. A Descriptive statistic of frequencies and percentages, mean and standard deviation were used to analyze the demographic characteristics of the respondents and research questions respectively. The hypotheses were tested using inferential statistics, one sample t-test and paired t-test were used to test the hypotheses at 0.05 level of significance. The results of the study revealed that there is a significant effect in knowledge of drug abuse prevention ($t = 3.318$; $p = 0.000$) and there is significant difference in knowledge before and after intervention on drug abuse prevention ($t = 2.502$; $p = 0.000$). Based on the findings of the study, it was concluded that health education intervention programme on knowledge of drug abuse prevention strategies among married women in Kaduna state, Nigeria is effective. Health Educators are recommended to create and update educational materials that are culturally appropriate and scientifically accurate to teach about drug abuse prevention.

Keywords: Drug abuse, Health Education Intervention Program, Knowledge, Prevention Strategies.

Introduction

Drug abuse remains a major public health concern globally, with developing countries like Nigeria witnessing a troubling rise in its prevalence across diverse demographics, including married women (United Nations Office on Drugs and Crime, 2021). Traditionally, drug abuse has been predominantly associated with male and youth populations; however, recent trends show a growing involvement of women, particularly in urban and semi-urban areas, influenced by factors such as emotional stress, domestic violence, and peer pressure (Adelekan, 2020). In Northern Nigeria, including Kaduna State, the problem is further compounded by cultural taboos, limited health literacy, and poor access to preventive education, which hinder effective intervention among married women (Yahaya *et al.*, 2019).

Knowledge about drug abuse and its prevention is the first critical step in empowering individuals, particularly married women, to make informed decisions that protect their health and that of their families. Knowledge encompasses understanding the types of drugs commonly abused, the physical and psychological effects of drug abuse, the risk factors associated with drug abuse, and the available prevention and treatment options. Health education interventions aimed at increasing knowledge are essential because they provide married women with the necessary information to recognize the signs of drug abuse and understand the importance of prevention. Studies have shown that increased knowledge about drug abuse significantly correlates with reduced drug use and more effective implementation of prevention strategies (Osonwa, & Arikpo, 2021).

Like many other societies, Nigeria society is a society in transition. Changing roles, increased stress and alterations in lifestyle bring with them newer problems. Although the problem of drug abuse among women is being increasingly recognized, female drug problems do not usually show up in official drug statistics. This is partly due to their limited numbers and the largely subordinate position of women users in the drug subculture. However, women are likely to suffer worse consequences than men as a result of drug abuse. It is therefore important to evolve alternate strategies to identify women with problems related to drug abuse in order to understand its impact both from the individual as well as from the gender perspective (National Center for Chronic Disease Prevention and Health Promotion, 2024).

Statement of the Problem

Drug abuse continues to pose a significant public health challenge in Kaduna state, Nigeria, with rising cases across diverse population groups. While numerous interventions have been directed towards youth and male populations, married women remain a largely overlooked demographic in the design and implementation of drug abuse prevention programs. This neglect persists despite increasing anecdotal and clinical observations suggesting that married women, particularly in semi-urban and rural communities, are not only indirectly affected by drug abuse within their households but are also, in some instances, direct users of psychoactive substances due to social, emotional, and economic stressors.

Objectives of the Study

The following major objectives were drafted to:

1. Determine the effect of health education intervention on the knowledge of drug abuse prevention strategies among married women in Kaduna state, Nigeria.
2. Determine the difference on Knowledge of drug abuse prevention strategies among married women before and after the health education intervention programme in Kaduna state, Nigeria?

Research Questions

The following questions were raised:

1. What is the effect of health education intervention on the knowledge of drug abuse prevention strategies among married women in Kaduna state?
2. What is the difference in the knowledge of drug abuse prevention strategies among married women exposed to the health education intervention programme and those without the intervention in Kaduna state?

Hypotheses

The following hypotheses were formulated:

1. The effect of health education intervention on the knowledge of drug abuse prevention strategies among married women in Kaduna state Nigeria is not significant.
2. There is no significant difference in Knowledge of drug abuse prevention strategies among married women before and after the health education intervention programme in Kaduna state, Nigeria?

Methodology

This study adopted a quasi-experimental pre-test, post-test control group design to determine the effect of a health education intervention on the knowledge of married women regarding drug abuse prevention in Kaduna state, Nigeria. The design was considered appropriate as it enabled the researcher to measure changes in participants' knowledge before and after the intervention, and to compare results between the experimental and control groups. This approach allowed for a clear evaluation of the effectiveness of the health education program in influencing behavioral change among participants (Campbell & Stanley, 1963; Creswell, 2024).

The population of the study comprised all women residing in Kaduna state. According to the National Population Commission (2022), the state has a projected population of 10,088,312 people, out of which 2,219,429 are women of childbearing age. From this population, a sample of sixty (60) married women was selected, consisting of thirty (30) participants in the experimental group and thirty (30) participants in the control group. This sample size was guided by Cohen and Manion's (2001) recommendation that a minimum of twenty participants per group is sufficient for experimental research to yield meaningful results. The selected sample was therefore considered adequate for generalization of findings within the study context.

A multi-stage sampling technique was employed in selecting participants for the study. At the first stage, Kaduna state was stratified into its three senatorial zones Kaduna North, Kaduna Central, and Kaduna South using stratified sampling. In the second stage, the fishbowl method of simple random sampling was used to select the Kaduna Central Zone. The third stage

involved selecting Kaduna South Local Government Area (LGA) randomly from among the LGAs in the chosen zone. In the fourth stage, two political wards Unguwan Sanusi and Badiko were selected randomly from the thirteen wards in Kaduna South LGA. In the fifth stage, purposive sampling was used to assign Unguwan Sanusi as the control group and Badiko as the experimental group. Finally, convenience sampling was employed to select married women who met the inclusion criteria from both wards, forming the total sample of sixty participants. The primary instrument for data collection was a structured questionnaire, named as effect of health education intervention on knowledge of drug abuse prevention strategies (EHEIPKDAPS) administered during both the pre-test and post-test phases of the research. The questionnaire consisted of four sections. Section A captured the demographic characteristics of the respondents. Section B elicited information about their knowledge of drug abuse prevention strategies. The questionnaire employed closed-ended items, allowing respondents to tick options that applied to them for consistency and ease of analysis.

To ensure validity, the questionnaire was subjected to expert review to establish content and construct validity. The instrument was validated by five experts in health education. Their inputs were used to refine the wording and structure of the questionnaire items, ensuring they were clear, relevant, and aligned with the research objectives.

The data collection procedure began with the researcher obtaining an introductory letter from the Department of Human Kinetics and Health Education at Ahmadu Bello University, Zaria, which was presented to the Kaduna South Secretariat, Department of Primary Health Care, for approval. Following official clearance, the researcher visited selected Primary Health Care Centers within the chosen wards to administer the questionnaires. The purpose and procedures of the study were clearly explained to participants to ensure informed and accurate responses. Data were collected in two stages pre-intervention and post-intervention with the researcher and assistants remaining present during administration to retrieve completed questionnaires immediately.

The intervention programme consisted of a six-week health education intervention focusing on drug abuse prevention. Each session lasted sixty minutes and was held once weekly, specifically on Wednesdays from 11:00 a.m. to 12:00 p.m. The intervention aimed to enhance participants' knowledge of drug abuse risks and promote preventive attitudes and practices. The control group, however, did not receive this intervention; instead, they attended sessions on environmental sanitation at the same weekly frequency and duration, serving as a placebo activity. The intervention process was divided into three phases: pre-intervention assessment (pre-test), intervention phase (six weeks of education sessions), and post-intervention assessment (post-test).

Upon completion of data collection, responses were coded and entered into a Microsoft Excel database for analysis. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize demographic characteristics and address the research questions. To test the study's hypotheses, inferential statistics including one-sample t-test and paired sample t-test were employed to determine significant differences between pre-test and post-test results within and between groups. These statistical tools provided a basis for

assessing the impact of the health education intervention on participants' knowledge, attitudes, and practices toward drug abuse prevention.

Results

Research Question One: What is the effect of health education intervention on the knowledge of drug abuse prevention strategies among married women in Kaduna state, Nigeria?

Table 1: Mean score and standard deviation Knowledge of drug abuse prevention strategies among married women

Knowledge of drug abuse prevention strategies	Status	Experimental		Control	
		Mean	Std. Dev.	Mean	Std. Dev.
	Pre-test	2.20	0.550	2.28	0.355
	Post-test	3.34	0.541	1.97	0.524

Decision mean 2.5

The rating of the two groups in table 1 revealed a positive response of participants in post- test of experimental group on knowledge of drug abuse prevention strategies. The participants in pretest of experimental group exhibited decreased knowledge of drug abuse prevention strategies with a mean and standard deviation of 2.20 and 0.550 respectively, while participants in post-test of same group exhibited increased knowledge of drug abuse prevention strategies with a mean and standard deviation of 3.34 and 0.541 respectively. The participants in control group exhibited decreased knowledge of drug abuse prevention strategies pre and post-test having an aggregate mean of 2.28 and 1.97 with standard deviation of 0.355 and 0.524 respectively.

Research Question Two: What is the difference in the knowledge of drug abuse prevention strategies among married women exposed to the health education intervention programme and those without the intervention n Kaduna state?

Table 2: Difference in mean between control and experimental group on knowledge of drug abuse prevention strategies

Variables	Group	N	Test	Mean	Standard Deviation	Mean Diff. Pre-test	Post-test
Knowledge of Drug Abuse	Experimental	30	Pre-test	2.20	0.550		
		30	Post-test	3.34	0.541		
	Control	30	Pre-test	2.28	0.355	0.08	1.37
		30	Post-test	1.97	0.524		

(Decision mean 2.5)

The rating in table 2 indicates that in experimental group a mean of 2.20 and 3.34 for pre and post-test with standard deviation of 0.550 and 0.541 respectively. The mean difference between experimental and control group for pre and post-test is 0.08 and 1.37 which is significant. In control group a mean of 2.28 and 1.97 for pre and post-test with standard deviation of 0.355 and 0.524 respectively. In pre and posttest the aggregate mean for posttest of experimental group indicate above 2.50 which are above the benchmark mean fixed.

Hypotheses Testing

Hypothesis I: There is no significant difference in the knowledge of drug abuse prevention strategies of married women exposed to health education intervention programme in Kaduna state.

Table 4: One sample t-test on significant knowledge of Drug Abuse among married women of Kaduna State

Variable	Test	N	Mean	Std. Dev.	Std. Error	t-value	t-critical	df	p-value
Knowledge of Drug Abuse	Post-test	30	3.34	0.541	0.0201	3.318	1.98	29	0.000
Test Mean		30	2.50	0.000	0.000				

(t-critical = 1.98, p <0.05)

The observed t-value for the test (3.318) obtained at 29 degree of freedom (df) is higher than the critical value indicated at the bottom of the table. The p-value for the test was 0.000 (p < 0.05). These observations provided sufficient evidence for rejecting the null hypothesis. The null hypothesis that there is no significant effect of health education intervention programme on knowledge of drug abuse prevention strategies among married women of Kaduna State, Nigeria is therefore rejected. The result show that the married women have significant knowledge of drug abuse prevention strategies among married women in the study area after intervention.

Hypothesis II: There is no significant difference in the knowledge of drug abuse prevention strategies among married women in Kaduna state, Nigeria before and after health education intervention of the experimental group.

Table 5: Paired sample t-test on difference between control and experimental group on knowledge of drug abuse prevention strategies

Test	N	Experimental Mean	Std. Dev.	Control Mean	Std. Dev.	Mean Diff	t-value	t-critical	Df	pvalue

Pre-test	30	2.20	0.550	2.28	0.3	0.0				
					55	8		1.96	29	0.000
								2.5		
								02		
Post-test	30	3.34	0.541	1.97			0.524	1.37		

(t-critical = 1.96, df=29, p <0.05)

The analysis further shows that p-value of 0.000 was less than 0.05 (0.000<0.05) and t-value of 2.502 is greater than 1.96. These observations provided enough evidence for retaining the null hypothesis. Thus, with this result we can conclude that the null hypothesis: there is statistical significant difference between control and experimental group in knowledge of drug abuse prevention strategies before and after the health education intervention programme among married women in Kaduna state, Nigeria is rejected. It means that there is a significant difference between control and experimental group in knowledge of drug abuse prevention strategies before and after the health education intervention programme among married women in Kaduna state, Nigeria.

Discussion of Findings

Hypothesis one findings revealed that knowledge of drug abuse prevention strategies among married women post-test was significantly higher. This findings agrees with the finding of Okonta *et al.* (2015) indicating a significant effectiveness of a community-based health education intervention on substance abuse knowledge among college students in Nigeria. Also similar to a study by D’Souza *et al.* (2018) demonstrating the programme’s efficacy in enhancing knowledge on drug abuse.

Hypothesis two findings revealed there is statistical significant difference between control and experimental group in knowledge of drug abuse prevention strategies before and after the health education intervention programme among married women in Kaduna state, Nigeria. This findings agrees with the finding of Ajani (2022) which demonstrated the effectiveness of health education interventions in improving knowledge of drug abuse prevention strategies. Similarly, a peer education intervention by Onyeka, *et al.* (2021) indicates communication intervention strategy on drug abuse significantly improved knowledge levels.

Conclusion

Based on the findings, the study concludes that health education intervention programme on knowledge of drug abuse prevention strategies among married women in Kaduna state Nigeria is effective. There was difference between control and experimental group in knowledge of drug abuse prevention strategies before and after the health education intervention programme among married women in Kaduna state, Nigeria.

Recommendations

The study has the following recommendations:

1. Married women should actively participate in health education programmes organized within their communities.

2. Health educators should design and implement gender-sensitive and culturally relevant health education interventions focusing on drug abuse prevention.
3. Future researchers should expand the scope of similar studies to include different demographic groups such as adolescents, men, and out-of-school youth to enhance generalizability.
4. The government, through its health and education ministries, should incorporate drug abuse education into primary healthcare programmes and adult education curriculums.
5. NGOs should collaborate with local communities to implement sustainable health education programmes that empower women to combat drug abuse.

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