INFLUENCE OF SEX ON THE EFFECT OF HEALTH EDUCATION INTERVENTION ON KNOWLEDGE OF CONTRACEPTION AMONG ADOLESCENTS IN RIVERS STATE

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Abstract
The study was a pre-test post-test quasi experiment aimed at investigating the influence of sex on the effect of health education intervention on knowledge of contraception among adolescents in Rivers State. A self-structured and validated questionnaire with reliability of .82 was used to elicit data from 424 participants. Simple random sampling technique was used to select intact SS1, SS2 and SS3 classes from two University Demonstration Secondary Schools in Rivers State who formed the experimental and control group. Mean, standard deviation and ANCOVA were used to analyze the data collected. From the result of the analysis, it was found that sex did not influence the effect of health education intervention on the knowledge of contraception among the adolescents ($F_{1, 421}$=2.62 >Fcal=.457, P >0.05). *Based on this finding it was concluded that male and female adolescents were not different in their comprehension of facts concerning contraception. It was, therefore, recommended among others that course content on contraception remain the same for adolescents in all secondary schools irrespective of sex.*

Keywords: Contraception, Adolescents, Knowledge, sex

Introduction

Contraception is a term that envelops diverse forms of pregnancy prevention methods. It is an aspect of reproductive health enhancer. Knowledge of this type of contraception can be beneficial to individual and his community as a whole. Adolescents in their prime are sexually active and need much guidance to ensure proper and healthy reproductive future. This guidance comes from gaining the right knowledge. Contraception is not only a form of prevention of unwanted pregnancies but can also prevent some sexually transmitted infections. The major concept of contraception is seen as a method of preventing untimely or unwanted pregnancies by altering reproductive processes (Farlex, 2012). Various forms of contraception are appreciated among adults' population of the world as over fifty percent of couples worldwide consume it (Okpere, 2005). Various types of contraception exist. Amongst these include, natural methods of contraception (Abstinence, rhythm method, withdrawal Billings, prolonged breastfeeding), traditional methods of contraception (herbs, wood carvings) and the modern methods of contraception (including the hormonal methods and barrier methods)

Adolescents might not have full access to these products because of their gender, financial stand, underage limit and limited knowledge on the right and best one for their use. Adolescents of different gender are characterized with different distinct changes that differentiate them from each other. The changes range from psychological to emotional, to physiological and cognitive development (Olukoya & Ferguson, 2002). Though the changes vary according to gender, they all result in making them matured individuals with complete components to exist and adapt to changes in their environment.

Nigeria as a developing country still holds some perceptions about contraception. Some hold the view that they are expensive, can lead to severe health problems, can damage the womb and as well cause discomfort. These factors have posed limitation to the utilization of contraception. Adolescents lack the proper and adequate knowledge on certain reproductive issues. They still need much learning and guidance to adapt and live healthy reproductive lives. Most especially, the knowledge of contraception might be determined by the gender of adolescents and could be due to the different bodily changes experienced at this age. This is why this study investigated the influence of gender on effect of health education intervention on knowledge of contraception among secondary school adolescents in Rivers State. This study also hypothesized that there was no significant effect of

health education intervention on knowledge of contraception among secondary school adolescents in Rivers state was postulated and verified based on sex.

Method

This study adopted the pretest posttest quasi experimental design. It aimed at determining the knowledge level possessed by participants before intervention and after intervention among adolescents of secondary schools in Rivers state. Rivers State is a South-southern state in Nigeria with 23 Local Government Areas with Bayelsa State bounded on the West, Akwa Ibom andAbia States bounded by the East and Atlantic Ocean bounded by the South. Purposive sampling technique was used to select two staff secondary schools of Federal and State owned universities in Rivers state. The population for the study consisted of approximately 2500 students of University staff secondary schools located in Rivers State. A sample of 424 adolescents participated in the study as control and experimental groups. Simple random sampling was used to select intact classes across SS1, SS2 and SS3. A self-structured questionnaire was used to gather information for the study. The questionnaire was administered at pre-test and at post-test after the intervention.

An adapted instrument from Pathfinder International (1997) was used as the intervention instrument to provide information about contraception. Validity of the instrument was established by three experts from Health Education, and Measurement and Evaluation. The reliability of the instrument was determined using Pearson Product Moment with Spearman-Brown Order Statistics to obtained coefficient r of 0.82. Copies of the instrument were administered and retrieved on the spot. Mean scores and standard deviations were used to answer research question while ANCOVA was used to test the hypothesis.

Results

Research Question: What is the effect of health education intervention on knowledge of contraception among secondary school adolescents of in Rivers state based on sex?Data answering this research question is in Table 1 below:

Table 1:

Gain Scores on the Effect of Health Education Intervention on Knowledge of contraception among Adolescent of University Staff Schools based on Sex Group

	Sex	N	Pre-Test Mean	SD	Post-Test Mean	SD	Gain Mean	SD
Intervention Group	Male	98	1.73	0.84	2.49	0.32	0.76	0.97
	Female	123	1.76	0.39	2.4	0.19	0.70	0.34
Control Group	Male	94	1.65	0.27	1.76	0.16	0.11	0.14
	Female	109	1.59	0.22	1.75	0.43	0.16	0.29

Data from Table 1above showed gain mean scores for knowledge on theeffect of health education intervention towards contraception among adolescent of schools based on sex. Both intervention and control groups showed increased gain mean scores but the gain scores in the intervention group (Male-0.76, Female-0.70) were higher than the control group (Male-0.11; Female-0.16). Also, the female showed higher gain in mean knowledge scores in both groups compare to their male counterparts.

Hypothesis: Health education intervention has no significant effect on knowledge of contraception among secondary school adolescents in Rivers state based on sex.

Data answering this research question is inn Table 2 below:

Table 2
Summary of ANCOVA on Difference in Knowledge of Contraception among Secondary School Adolescents of University Staff Schools based on Sex Group

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	378.466	2	189.233	.469 .718	
Intercept	130567.419	1	130567.419	323.721	.000
PREKNOW	205.518	1	205.518	.509 .549	
SEX	184.495	3	184.495	.457.570	
Error	169803.201	421	403.333		
Total	3112462.000	424			
Corrected Total	170181.667	423			

$F_{3,421}$=2.62, Fcal=.457, p>.05

The table above reveals that that there was no significant difference in knowledge of contraception among secondary school adolescents of Rivers State based on sex group since F_{cal} = .457 is less than $F_{critical}$ = 2.62. We therefore accept the null hypothesis at 5% level that health education intervention has no significant effect on knowledge of contraception among secondary school adolescents of Rivers state based on sex. ($F_{1, 421}$=2.62 >Fcal=.457, P >0.05).

Discussion

From the results in Table 1, the knowledge of contraception gained by female participants increased after intervention as well as the knowledge of contraception gained by the male participants. This finding is supported by Shahamfar, Kishore and Shokhyash, (2007) finding which showed that after intervention, the knowledge of contraception possessed by men increased. Concurrently, Al-Dubhani et al., (2014) findings showed that women's score on knowledge of contraceptives also increased after intervention. This is in consonant with the result of a study which showed that respondents' knowledge about contraception increased significantly in intervention groups compared to the control group from recorded studies (Center for Research on Environment, Health, and Population Activities, CREHPA, 2004).

Consequently, the female participants showed more increase in their gain in mean knowledge compared to their male counterparts. This might be because the female experience more bodily changes at puberty than boys and these experienced changes continue till the peak of adulthood. This would raise more concern on their reproductive lives and more yearnings for increased knowledge. Applegate (1998) posited that young women are likely to exhibit changes in knowledge, attitude and behavioural changes towards reproductive health issues.

From the result obtained in Table 2 of this study, sex of respondents did not influence the effect of health education intervention on knowledge of contraception among adolescent in secondary schools in Rivers state. Though the female participants' knowledge on contraception was higher after intervention than their male counterparts, it was statistically insignificant. This could be as result of both gender quests for increased knowledge on contraceptives issues. As they keep growing, they yearn more for knowledge on contraceptive issues and reproductive health issues that could be beneficial to them and even in their relationships so as to lead a healthy reproductive life that would help lead healthy lives.

Conclusions and Recommendations

Following from the results, it is concluded that male and female adolescents were not different in their comprehension of facts concerning contraception. The presence of the opposite sex posed no distraction for the adolescents in the teaching and learning process. Therefore, there may be no need to develop gender-sensitive education intervention about contraception for adolescents.

Based on the conclusions reached, the following recommendations were made.

1. Adolescents in all secondary schools should be taught the same content of contraception irrespective of sex.

2. The teaching of contraception should be carried out in the same environment and at the same time for both male and female adolescents. They should not be separated. This is because the lessons learned by the male can be useful to their female friends and the lessons learned by the female folks can also be conveyed and as well be beneficial in relationships to both parties.
3. Trained health educators and personnel should handle the subject matter to ensure proper and adequate knowledge dissemination and as well know how to handle the adolescents in the presence of excesses. Some of the adolescents would be able to confide in and go for counseling when they discover the subject area is handled by a professional.

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