ECONOMICAL ADAPTATIONS OF VESICO VAGINAL FISTULA PATIENTS IN NIGERIA

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ABSTRACT

Vesico Vaginal Fistular (VVF) affects numerous girls and women every day. The injury leaves women with few opportunities to earn a living and many have to rely on others to survive, or turn to begging or engaged in commercial sex services. In some communities in Nigeria they are not allowed to have anything to do with food production and may be excluded from prayers or other religious observances. This study aims at identifying the economic strategies adopted by the VVF patients in Nigeria and to find out the significance of demographic characteristics on the adoption of the coping strategies among the patients. An expose-facto research design was adopted and using 250 VVF patients in 4 centres across Nigeria as respondents. The data was obtained using a structured questionnaire developed on 4-point likert scale. The results revealed that, respondents do not have adequate economic strategies for reducing the impact of the disease with an aggregate mean score for the table as 2.29 lower than the 2.5 level of agreement. But differences in age and education have significant influence on the adoption of the coping strategies among the patients. It was therefore recommended that there is the need for creation of economic opportunities through empowerment in vocational programmes by agencies to boost the income of women with VVF.

Keywords: Vesico vaginal fistula, economic adaptation strategies, Nigeria

INTRODUCTION

The misery of fistula is relentless, in spite of one's best efforts to stay clean, the smell of leaking urine or faeces is hard to eliminate and difficult to ignore. The dampness causes rashes and infections. The cleaning up is constant, and pain or discomfort may be a continuous disturbing issue as well. The grief of losing a child and becoming disabled exacerbates the pain. The courage many women show in the face of these challenges is extraordinary (National foundation on VVF 2005). The injury leaves women with few opportunities to earn a living and many have to rely on others to survive, or turn to begging or engaged in commercial sex services. In some communities in Nigeria they are not allowed to have anything to do with food production and may be excluded from prayers or other religious observances. Although many women with fistula have supportive families, the smell can drive even loving husband, close relatives and friends away. For many women the profound stigma of social isolation is worse than the physical torment. The pain around loneliness associate with fistula is often compounded by a sense of shame and humiliation.

A careful observation has revealed that fistula has received little attention in the past because it affects mainly the poorest and most powerless members of the society. It is also considered mainly as women's health problems. (Kelly,1995). Kelly further stated that the disparities in incidence of fistula and other childbirth related injuries are enormous. One in 16 women in Sub-Saharan Africa of which Nigeria is one will die as a result of childbirth or pregnancy. In developed regions, the figure is 1

in 2,800. Given these disparities, maternal health is a matter of human right as well as a public health concern. In many places, the right to health services and freedom from discrimination to reproductive choice and even the right to live are yet a reality for women and girls. If giving birth is life affirming for so many, why does it have to be life threatening for so many others, especially poor women. The researcher's motivation for this study was borne out of the deep concern for the health care of women, most especially the girl-child who has fallen victim of this evil disease called Vesico Vaginal Fistula (VVF) with the disability that has eroded their social and economic status including their self-esteem. Unless more fistula centers are able to provide basic education, enlightenment training on income generating skills, and psychological support to help clients reintegrate into their communities, the woman will continue to deteriorate in this health condition. Health education and counseling are key components of post-operative care women are advised on when it is safe to resume sexual relationship and get pregnant. They should be provided with or referred to family planning service. In areas with high HIV prevalence, prevention and counseling is also encouraged. Following surgery, women are sometimes provided with a booklet or card describing their medical history and the need for a caesarean section in the event of another pregnancy (Wall, 2004). The aim of this study is to identify the economic strategies adopted by VVF patients in Nigeria.

METHODOLOGY

Research design adopted is a descriptive research of expost-facto research design (Gay, 1992, Dooley 2003). The study population comprises of all VVF patients in VVF centers of the six geopolitical zones in Nigeria (South East, South South, South West, North East, North Central and North West). UNFPA (2011) estimated that there are about one million women living with fistula in Nigeria. This study found a total of 836 VVF victims in the four sampled VVF centers in Nigeria. from this number, a sample size of 250 respondents was used for the study based on a sample size selection chart by Isaac, Michael and Smith (1981) that reveals that for a population of 500-1000, a sample size of 250 is sufficient for generalization.

A Multi-stage sampling technique was used were Nigeria is stratified into 6 geographical zones in the first stage. 4 zones were randomly selected here and in the second stage, one VVF centre was purposively selected from each of the four zones. Proportionate sampling technique was then used in the third stage to draw sample size required from each centre based on the available number of patients in each of the selected centers.

Table 1. Sample Size Determination Table

Geo-political Zone	VVF Centre	Population	Sample size
South East	Abakiliki	71	22
North East	Gombe	416	124
North Central	Ilorin	289	86
South-South	AkwaIbom	60	18
Total		836	250

Instrumentation

A self-developed structured questionnaire was used to assess the psychological strategies adopted in reducing the impact of VVF in the patients. The questionnaire contains thirty (34) statements in four sections A- C. Section A obtains the demographic information of the respondents from eight responses, section B contains statements on psychological problems associated with of VVF, and section C contains statements on psychological strategies adopted in reducing the impact of VVF. The statements were prepared using a 4-point modified Likert scale that reflects the respondents' feelings. The responses were scored as follows: SA = Strongly Agree (4 points); A = Agree (3 points); D = Disagree (2 points); and SD = Strongly Disagree (1 point). An aggregate mean of 2.5 is adopted as the level of agreement for individual statements on the Likert type scale. The 2.5 was obtained as follows; 4+3+2+1= 10, 10/4= 2.5. the questionnaire was validated by vetting from experts and was passed through a pilot study to ensure reliability. The reliability index of 0.942 was obtained for the Cronbach's Alpha, Spearman-Brown equal length Coefficient gave an index of .868 while the Guttman Split-Half Coefficient was 0.926. The internal consistency coefficient for the items within the instrument was 0.971. These observed reliability coefficients are approximately equal to one. According to Anastasi (1980), the closer to 1 the reliability coefficient the more reliable the instrument. Thus, the designed instrument could be said to be reliable and internally consistent for the study.

The questionnaire was administered on the respondents with the help of four (4) research assistants one each from among the staff working in the selected centers to ensure ease of access and understanding of cultural differences that occur among respondents. The data collected for the study was analyzed using the Statistical package for Social Sciences (SPSS). Descriptive statistical tools of frequencies, percentages, mean and standard deviations were used in analyzing the data. Inferential statistics including the chi-square procedure and one-way analysis of variance (ANOVA) were used to test significances among variables. The hypotheses were tested at 95% confidence interval (P = 0 5)0

RESULTS

Out of the 250 questionnaires distributed, 249 were adequately completed and analysed giving a response rate of 99.6%. The demographic variables of Age, Marital status and Educational status and Location (Geo-political Zone) were presented in Table 2.

Table 2. Respondents' socio-demographic characteristics

Variables	Variable options	Frequency	Percent
Age	10-15 years	75	30.1
	16-21 years	78	31.3
	22-27 years	55	22.1
	28 years and above	41	16.5
	Total	249	100.0
Marital status	Married	98	39.4
	Separated	73	29.3
	Divorced	45	18.1
	Widowed	28	11.2
	Single	5	2.0
	Total	249	100.0
Location (Geo-political Zone)	Abakiliki South East	21	8.4
	Gombe North East	124	49.8
	Ilorin North Central	86	34.6
	AkwaIbom South-South	18	7.2
	Total	249	100.0

An analysis of the demographic data showed that 75 (30.1%) of the subjects were between the age of 10 and 15 years. Subjects who were between 16 and 21 years were 78 (31.3%) while 55 (22.1%) of the total number were between 22 and 27 years. Only 41 (16.5%) of the subjects were above 27 years. This age is examined as a possible factor in the adoption of strategies for reducing the impact of the disease among the subjects. By marital status, 98 (39.4%) of the subjects were married while 73 (29.3%) were separated from their spouses and 45 (18.1%) were divorced. Subjects who were widowed were 28 (11.2%) while 5 (2.0%) were single. This classification clearly shows that the disease primarily affects the rate of marriage among its subjects; this is clearly indicated by the number of subjects who were separated from their spouses and those that were divorced.

The locations of the centers as indicated in the table showed that 21 (8.4%) were from South East geopolitical zone while 124 (49.8%) were from North East geopolitical zone. Those from North central geopolitical zone were 86 (54%) while 18 (7.2%) were from South - South Geo-political zone. By this distribution, the study could be said to have covered most of the VVF centers in the Federation.

Table 2 Mean and standard deviation of respondent's responses on economical adaptation strategies

Economic Adaptation	Mean	SD
Receive support from children and family members	2.80	0.758
I receive reimbursement from medical schemes	1.99	0.861
I receive in-kind help from friends and relatives	2.43	0.669
I trade to make some money for my upkeep	2.07	0.849
I reduce my expenses in order to cope financially	2.71	0.770
I am contented with the small money I make	2.61	0.910
Financially, I am satisfied	2.06	1.012
I receive social relief to survive	2.17	0.775
I borrow from money lenders	1.98	0.803
I use cash and savings	2.07	0.875

Table 2 revealed that, respondents do not have adequate economic adaptation strategies for reducing the impact of the disease. Aggregate mean score for the table is 2.29 and is by far lower than the 2.5 which indicated that the adaptation of the economic strategies by the subjects is inadequate. Though, the respondents agreed that they get support from children and family members and that they reduce their expenses in order to cope financially as well as be contended with the little money they make but the overall impression is that the economic strategies are not adequate.

Table 3 Mean and standard deviation on adopted economic strategies of the different age groups

		Mean	Std. Dev.
10-15 years	75	2.08	0.267
16-21 years	78	2.40	0.294
22-27 years	55	2.38	0.451
Above 27 years	41	2.35	0.434
Total	249	2.29	0.377

The adopted economic strategies where lowest among the lower age bracket of 10 to 15 years. But the subjects who were within the age range of 16 to 21 years and those between 22 and 27 years were almost of equal opportunities. Subjects who were above 27 years had relatively lower adaptation level for the economic strategies.

Table 4: Mean and standard deviation adopted strategies by educational status

		adopted economical strategies analysis	
Educational status	N	Mean	Std. Dev.
No formal education/Islamic	127	2.23	0.327
Primary	53	2.30	0.407
Secondary	62	2.39	0.444
Tertiary	7	2.41	0.038
Total	249	2.29	0.377

The subjects were completely at par in the adaptation of the economic strategies. This would mean that education play no major role in the adaptation of the strategies for reducing the effect of the disease among the subjects. In the overall assessment, though the adaptation of the economic strategies was higher among subjects with higher educational attainment but the variability was relatively small.

Hypothesis 1: The economic strategies adopted for reducing the effect of VVF among patients in Nigeria are not significant. This hypothesis was tested with One-way analysis of variance (ANOVA). The result of the One-way analysis of variance use for the test is summarized in Table 5.

Table 5. ANOVA of economic strategies' adaptation for reducing the effect of VVF among patients

Source of variation	Sum of Squares	df	Mean Square	F	Sig.	Decision
Between Groups	3.574	3	.962	19.258	.001	Ho rejected
Within Groups	15.369	245	.157			
Total	18.147	248				

(F-critical at df (3, 245) = 2.60, P < 0.05)

As presented in Table 5, the subjects were of the view that the economic strategies adopted for reducing the effect of VVF was significant. The calculated F-ration (3, 245) = 19.258 was higher than the critical F-ratio of 2.60 at the 3, 245 degrees of freedom and at the probability level of 0.05. Moreover, the observed level of significance for the test is 0.001 (P < 0.05). This means that there is no evidence to retain the null hypothesis that the economic strategies adopted for reducing the effect of VVF among patients in Nigeria is not significant could thus be rejected.

Hypotheses 2: There is no significant difference among VVF patients in their adaptation of strategies for reducing the impact due to differences in their age groupings. This hypothesis was tested with the one-way analysis of variance (ANOVA) because of the multiple levels of the independent variable (age groupings of the subject) involved.

Table 6. ANOVA of adaptation of strategies for reducing the impact of VVF among patients

Source of variation	Sum of Squares	dF	Mean Square	F	Sig.	Decision
Between Groups	2.469	3	.823	15.598	.000	Ho rejected
Within Groups	12.927	245	.053			
Total	15.397	248				

(F-critical at df (3, 245) = 2.60, P < 0.05)

The aggregate mean scores of the adaptation of the three strategies by the subject was used as the dependent variable. The test revealed that the subjects differ significantly in their adaptation of the coping strategies for reducing the impact of the disease by their age groupings. The observed F-value for the adaptations of the strategies is 15.598 a value higher than 2.60 for the critical value at the 3, 245 degree of freedom. The observed level of significance (P) for the test is 0.000 ($P < 0.05$). To determine the age group that was significantly different from the others a post hoc test was performed on the means using the Scheffe procedure.

Table 7: Mean separation test on the adaptation of the strategies by age groupings of the subjects

Age	Age	Mean Difference	Std. Error	Sig.
10-15 years	16-21 years	-.21(*)	.03	.000
	22-27 years	-.27(*)	.04	.000
	Above 27 years	-.21(*)	.04	.000
16-21 years	10-15 years	.21(*)	.03	.000
	22-27 years	-.01	.04	.983
	Above 27 years	.00	.04	1.000
22-27 years	10-15 years	.22(*)	.04	.000
	16-21 years	.01	.04	.983
	Above 27 years	.01	.04	.989
Above 27 years	10-15 years	.21(*)	.04	.000
	16-21 years	-.00	.04	1.000
	22-27 years	-.01	.04	.989

* The mean difference is significant at the .05 level.

The result revealed that the observed significant variability in the adaptation of the strategies by the different age groups was between the subjects who were between 10 and 15 years and the rest of the subjects in the other different age groupings.

Hypotheses 3: There is no significant difference among VVF patients in their adaptation of strategies for reducing the impact due to differences in their educational attainment. The educational attainment of the subjects was used in this test to determine the role of education on the adaptation of the coping strategies by the subjects. The aggregate mean scores of all the strategies were used as the dependent variable.

Table *8*: Mean scores on the adaptation of strategies by educational levels of the subjects.

Educational levels	N	Mean	Std. Deviation	Std. Error
No formal education/Islamic	127	2.44	0.208	0.018
Primary	53	2.50	0.246	0.034
Secondary	62	2.59	0.304	0.039
Tertiary	7	2.64	0.013	0.005
Total	249	2.50	0.249	0.016

As presented in Table *8, t*he mean scores which clearly showed that educational level is a major factor in the adaptation of the strategies by the subjects. There tended to be a trend where adaptation of the strategies varies positively with increase in educational attainment of the subjects.

Table *9:* One-way analysis on adaptation of the strategies by subjects' level of education

Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.152	3	.384	6.604	.000
Within Groups	14.245	245	.058		
Total	15.397	248			

(F-critical at df (3, 245) = 2.60, P < 0.05)

The result in Table 9 revealed that the subjects of the different educational background differed significantly in their adaptation of the strategies (P < 0.05). The observed F-values for the test is 6.604 and it is higher than the critical value of 2.60 at the same degree of freedom (3, 245). The observed level of significance (0.000) for the test is lower than 0.05 (P < 0.05). This means that null hypothesis can be rejected since there is no basis for its retention. Therefore, the null hypothesis that there is no significant difference among VVF patients in their adaptation of economic strategies for reducing the impact due to differences in their educational attainment is thus rejected. The mean separation test was conducted to determine the level of education of the subjects that was significantly different from the others using the Scheffe procedure. The result of the test is summarized in Table *9.*

Table 10: Scheffe post hoc test

Educational status	Educational status	Mean Difference	Std. Error	Sig.
No formal education/Islamic	Primary	-.06330	.03943	.463
	Secondary	-.15497(*)	.03736	.001
	Tertiary	-.19951	.09361	.211
Primary	No formal education/Islamic	.06330	.03943	.463
	Secondary	-.09166	.04511	.251
	Tertiary	-.13621	.09697	.579
Secondary	No formal education/Islamic	.15497(*)	.03736	.001
	Primary	.09166	.04511	.251
	Tertiary	-.04455	.09614	.975
Tertiary	No formal education/Islamic	.19951	.09361	.211
	Primary	.13621	.09697	.579
	Secondary	.04455	.09614	.975

* The mean difference is significant at the .05 level.

Table 10 revealed that the significance obtained in the adaptation of the strategies was between the secondary schools' certificate holders and those who had no formal education. Between subjects with secondary school education and those with tertiary education, no significant difference was observed in their levels of adaptation of the strategies. And between those with no formal education and those with tertiary education, no significant difference was observed in their levels of adaptation of the strategies.

DISCUSSION OF FINDINGS

This study investigated the economic strategies adopted by the VVF patients in Nigeria. The result of the test showed patients do not have adequate economic strategies for reducing the impact of the disease but the level of adaptation of the strategies for reducing the impact of the VVF among the patients was significant. This finding agrees with Melah, Massa, Yahaya, Bukar, Kizaga, and el-Na- Faty (2007) where it was opined that changes and adaptation of strategies like the improved access to basic essential obstetric care, family planning services, and timely referral when and where necessary where factor that would likely lead to better development in the management of VVF. The report stated that the Universal education will provide a long-term solution by improving the standard of living and quality of life and that equally important are media and community- based programmes on the ills of teenage marriage and child pregnancy using cultural and religiously-based values to give sound advice in a male dominated society, reaching out to men with traditionally palatable messages that will change their attitude and practices to taking responsibility in reproductive health could be a winning strategy .the findings here are in line with the report of Sambo (2003) where it was stated that the traditional attitude of the husband, family and the society as a whole is a major problem in VVF management. The report pointed out that VVF patient in most Nigerian societies are considered as outcast and that this is especially made worst by the presence of urine leakage, which is considered as dirty derogatory and an obstacle to worship and prayer. The study further stated that this difference between societies regarding the case of VVF patients is mostly in terms of the attitude towards patients. In societies where there is sympathy towards the patient and the patients are accepted by societies, VVF is not a social menace, but where the contrary occurs VVF becomes a very critical issue. This negative attitude, also serve as a means by which all the parties dissociate themselves from the source of the problem. For this reason, the society does not associate itself with the cause of VVF and therefore the consequent need to avert and change practices resulting to its occurrence. This study also finds out that patients of 16-20 years have more positive strategies than other age groups. Also, the strategies improve with increase in level of education of the patients.

Kindin (2001), who pointed out that social stigma is more damaging than the physical effects of VVF. Because of the nature of the injury, many sufferers have become abandoned by their husband and families and shunned by their former friends. The finding here is consistent with the report of Imelda (2005) where it was stated that the problem leads to the husbands who invariably divorce the victims due to urinary incontinence and a study from Zaria and Kano established that 80% -90% of VVF patients were divorced. This finding is consistent with the report of Kabir Iliyasu, Abubakar and Umar (2004) who reported that traditionally, there is a resentment of operation delivery and that women who deliver by operation are mostly ridiculed and seen as half women, because of the tendency to associate operation with fear of normal delivery

and reproductive failure. The report stated that for this reason, most women boycott hospitals and clinics.

The test of Hypothesis I focused on the significance of the adaptation level of the economic strategies for reducing the impact of the disease among the subjects. The result of the chi-square revealed that the level of adaptation of the strategies was statistically significant. The null hypothesis was therefore rejected. Thus, this finding is a reflection of Ijaiya and Aboyeji, (2004) where it was stated that there are levels at which social issues affect women, such as: involvement in socio-economic issues and politics, marriage/family, education and health care. Nigeria's 6th periodic country report (2004-2006:187) states that gender stereotypes continue to be reinforced in Nigeria at a series of agents of socialization, such as the family, schools and even churches and mosques. According to the report, the media have become the custodian as well as disseminator of gender roles, stereotypes, prejudices and discriminatory cultures. That girls and boys grow up in Nigerian society to accept male superiority over females and patriarchal structures has become an unquestionable phenomenon. Teachers, religious leaders, parents, police officers and artists in Nigeria usually all work towards promoting obnoxious customary beliefs and practices that violate the rights of women. Consequently, customary practice such as female genital mutilation, preference for male child, and widowhood rites are still prevalent in most parts of Nigeria

Differences between subjects of different marital statuses in the adaptation of the strategies were tested in hypothesis two. The one-way analysis of variance was used in the test and the result showed that the subjects differed significantly in their adaptations of the strategies by their marital status. From the related mean scores, it was observed that the adaptation of the strategies was particularly low among subjects who were single, divorced and separated. The widows and the married subjects were more disposed to the adaptation of the strategies than the other groups. The finding here is consistent with the report of Imelda (2005) where it was stated that the problem leads to the husbands who invariably divorce the victims due to urinary incontinence and a study from Zaria and Kano established that 80% -90% of VVF patients were divorced. Hypothesis three tested for significant difference between subjects of different educational qualifications in their adaptation of the strategies. The result for the one-way analysis of variance used for the test revealed significant difference between the groups. The null hypothesis was therefore rejected. However, it was observed that general adaptation of the strategies did not varies directly by educational attainment of the subjects as those with secondary school education were found to have higher adaptation levels of the strategies than their counterparts with tertiary education. The finding here agrees with Sambo (2003) who reported that there is a generally high level of illiteracy about the danger of childbirth and its complications. This is made worst in a population where the educational level is very low. The effect of low literacy is also further complicated by the withdrawal of girls from school for the purpose of marriage and subsequent early age at first childbirth.

Conclusion and Recommendations

The findings of this study reveal that subjects of VVF do not have adequate economic adaptation strategies for reducing the negative impact of the disease. The study revealed that age and educational attainment play a role in the level of adaptation of the strategies.

Based on the findings from the analyzed data and test of the study's hypotheses, the

researcher wishes to make the following recommendations: Enlightenment campaign of subject should be one of the major ways of increasing awareness and adaptation of the investigated strategies. Effort should be made to employ counsellors who will be working hand in hand with medical personnel among the VVF patients so as to increase their psychological dispositions towards effective adaptation of some of the psychological strategies for reducing the impact. There is a need to enlightenment and increased interaction among VVF patients. There is a need for creation of economic opportunity through the various empowerment programmes and agencies.

Special effort should be made to encourage and support unmarried patients who suffer from the disease. There should be an effective educational policy which will prohibit girls at certain age from marriage. This policy will help in the problem of early marriage and give basic education to the girl-child.

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