

Influence of Maternal Variables on the Occurrence of Vesico Vaginal Fistula in Uyo Local Government Area of Akwa Ibom State, Nigeria

Ukeme E. Eyo Ph.D and Comfort Udobang

Department of Physical and Health Education, University of Uyo, Akwa Ibom State, Nigeria.

Abstract

This study was conducted to assess the influence of maternal variables on the occurrence of vesico vaginal fistula. Twenty five patients of VVF were purposively selected from the Family Health Hospital at Mbirit Itam and used for the study. A questionnaire titled maternal variables and vesico vaginal fistula questionnaire (MVVVFQ) was used to collect data for testing the three null hypotheses by calculating t-test. Findings revealed that maternal age, education and income were among the maternal variables that expose women to the incidence of VVF. Recommendations were made among others that parents should send their daughters to school instead of giving them out in early marriage, teenage pregnancy should be avoided and caesarean section should be done for obstructed labour instead of allowing young mothers go through difficult labour.

Introduction

Nigerians love children. The arrival of a new born baby into a family is often greeted with joy. The elaborate naming and dedication ceremonies which are accompanied by extravagant feasting testify to the high value society attaches to children. When a woman is pregnant there is hope that she will bring forth her baby safely. This value, of children explains why members of her matrimonial family and others take care of her because of the baby she carries.

There are however eases when the birth of a baby brings sadness to the mother even when the child is alive and lovely. As explained by Murphy (2006) women pass through a lot of hazards during childbirth. At times when labour is prolonged a condition known as Vesico Vaginal Fistula may occur.

Vesico Vaginal Fistula (VVF) is, an abnormal fistulous tract, extending between the bladder and the vagina that allows the continuous involuntary discharge the vaginal vault (Riley 2004). It is a sub type of female urogenital fistula. Hamlin (2007) describes fistulae as holes that are created between the vaginal wall and the bladder as in the case of Vesico Vaginal Fistula. It can also be a hole created between the vaginal wall and the rectum as in case of rectovaginal fistula.

Hamlin (2007) reported that Vesico Vaginal Fistula causes a lot of hardship to the affected woman. To meet any of these mothers is to be profoundly moved. They mourn the still birth or their offensive odour, they are often ignored by their husbands and are homeless and may not be employed due to the problem (Makinwa, 2005). They thus may exist without hope unless there is medical intervention.

WHO (2005) asserted that Vesico Vaginal Fistula is a health condition caused by the interplay of numerous physical factors and the social, cultural, political and economic situation of women. The physical factors that give rise to the incidence of Vesico Vaginal Fistula include obstructed labour, accidental surgical injury related to pregnancy and crude attempts at induced abortion.

In Nigeria, just like most other African countries, early marriage and teenage pregnancy is common (Mustafa & Rushwan, 2001). The young women have pelvis that are yet to be sufficiently developed to allow for the child to be born with ease. Often the delivery is done at home or at the house of a traditional birth attendance (TBA). This result in obstructed labour leads to Vesico Vaginal Fistula when prolonged and unrelieved pressured on the woman's pelvic wall causes a puncture in the bladder. This causes urine to leak uncontrollably (Ojanuga, 2002).

In Uyo Local Government Area there are cases of Vesico Vaginal Fistula and this has led to the establishment of the hospital for the treatment of those cases at Mbirit Itam near Uyo. The occurrence of this condition is health problem. It is important to assess the maternal factors that lead to the occurrence of Vesico Vaginal Fistula

Hypotheses

The following null hypotheses were stated for this study:

- (i) Maternal age does not have any significant influence on Vesico Vaginal Fistula.
- (ii) Maternal educational level has no significant influence on Vesico Vaginal Fistula
- (iii) Maternal income has no significant influence on Vesico Vaginal Fistula.

Research Design

This study is an ex post facto or causal comparative research. The design is used because the problem of vesico vaginal fistula has already taken place and the researchers only assess the variables about the women that could have given rise to it. Tuckman (2006) explains that this design is used to study a particular condition in a population. The researchers are not the one that assigns members into any group.

Research Area

This study was conducted in Uyo Local Government Area. It is the capital of Akwa Ibom State and has a high population density. Although the city is populated by people who are fairly educated the rural areas have some lowly educated and not so well to do individuals. There is a Vesico Vaginal Fistula hospital in the area for the treatment victims.

Population of the Study

The population of this study comprised all the Vesico Vaginal Fistula patients in Maternity/Birth injury Hospital, Mbribit Itam. The population of the patients was 30.

Sample and Sampling Technique

The purposive sampling technique was used to select a sample size of 25 patients. This represents 83.3% of the population. The list of Vesico Vaginal Fistula patients currently receiving treatment in Maternal/Birth injury Hospital was obtained from the hospital and serial numbers assigned to them. The first 25 patients whose serial numbers first appeared in the table of random numbers were selected for the study.

Reliability of the Questionnaire

The test retest method was used to ascertain the reliability of the questionnaire. A pilot test of the questionnaire was carried out on 10 Vesico Vaginal Fistula patients at the Teaching Hospital, Calabar. After one week there was a second administration of the questionnaire on the same subjects and two-scores correlated by calculating Pearson Product Moment Correlation. A coefficient of 74 was obtained. This showed that the questionnaire was considered reliable and could be used for the study.

Data Analysis and Result

Hypothesis 1

Material age does not have any significant influence on Vesico Vaginal Fistula.

Table 1

Correlated t-test analysis of the influence of maternal age on vesico vaginal fistula

N=25

Variables	X	S	D	D ²	t-cal
Maternal age	11.4	.82			
			-136	914	10.04*
Vesico vaginal fistula (VVF)	16.8	2.36			

*significant at .05, df=24, t-critical=2.06

From Table 1, the obtained t-value was (10.09) while the critical value of t was (2.06) at 24 degree of freedom and at .05 level of significance.

The significance of the result was determined by comparing t-value with the critical t-value. The result showed that the calculated t-value was higher than the critical value.

Hence the result was positively significant. Therefore, null hypothesis I was rejected while the alternate one was upheld, which states that maternal age has great significant influence on Vesico Vaginal Fistula.

Hypothesis 2

Maternal educational level has no significant influence on Vesico Vaginal Fistula

Table 2

Correlated t-test analysis of the influence of maternal educational level on Vesico Vaginal Fistula.

N=25

Variables	X	S	D	D ²	t-cal
Maternal Education Level	11.4	0.65			
			-128	842	9.18*
Vesico Vaginal Fistula (VVF)	16.8	2.36			

*significant at .05, df=24, t-critical=2.06

Table 2 above showed the calculated t-test as (9.18). The value was tested for significance by comparing it with the critical t-value at .05 level and 24 degree of freedom. The calculated t-value (9.18) was higher than the critical value (2.06). Hence, the result was positively significant. This means that maternal education level is a determinant to the Vesico Vaginal Fistula. This caused the null hypothesis 2 to be rejected while the alternative one was upheld.

Hypothesis 3

Maternal income has no significant on Vesico Vaginal Fistula

Table 3

Correlated t-test analysis of the influence income on Vesico Vaginal Fistula.

N=25

Variables	X	S	D	D ²	t-cal
Maternal Income	10.4	1.15			
Vesico Vaginal Fistula	16.8	2.36	-134	896	9.85*

*significant at .05, df=24, t-critical=2.06

From table 3, the calculated t-value was (9.85) while the critical value of t was (2.06) at .05 level of significance and 24 degree of freedom. The significance of the result was determined by comparing the calculated t-value with the critical t-value. The result showed that the calculated t-value was greater than the critical t-value.

Hence, the result was positively significant. Therefore the null hypothesis 3 was rejected while the alternative one which states that maternal income has significant influence on Vesico Vaginal Fistula was upheld.

Table 4

The one-way analysis of variance of the combined influence of the maternal variables on Vesico Vaginal Fistula.

N=25

Sources of Variance	SS	DF	MS	F-cal
Between Groups	641.63	3	213.89	107.48*
Within Groups	191.36	96	1.99	
Total	832.99	99		

*significant at .05, df=3.96, F-crit=2.58

From table 4 above, the calculated f-value was determined by comparing the obtained F-value with the critical value. The result showed that the calculated F-value was greater than the critical F-value. Hence, the result was positively significant. This implies that maternal status is a factor of Vesico Vaginal Fistula in women.

Discussions of the Findings

Influence of Maternal Age on Vesico Vaginal Fistula.

The result of date analysis in Table 1 was positively significant due to the fact that the obtained t-value (10.09)* was greater than the critical value (2.06) at .05 level with 24 degree of freedom. From this result, there was a significant influence of maternal age on Vesico Vaginal Fistula among women. This result is in agreement with the study supported by some of the earlier findings of other writers and researchers. The finding that maternal age has a significant influence on the occurrence of VVF is in line with an earlier finding by Igbadu

(2008) who found that 70 percent of the women with flstula were aged 20 years and under; 5.5 percent of them were under 13 years of age.

Influence of maternal educational Level on Vesico Vaginal Fistula.

The result of the date analysis in Table 2 was positively significant due to the fact that the abstained t-value (9.18) was greater than the critical value (2.06) at .05 levels with 24 degree of freedom. From this result, there was a great influence of maternal educational level on Vesico vaginal Fistula among women; this goes a long way to strengthen the study by Essien (2010) who found that 66 percent of cases of VVF occurred in women who had not completed secondary education.

Influence of Maternal Income on Vesico Vaginal Fistula

In Table 3, the result obtained showed positive significance due to the fact that the calculated t-value level (9.85) was higher than the critical value (2.09) at .05 with 24 degree of freedom. The result implied that maternal income is a great determinant of Vesico Vaginal Fistula among women. The significance of the result is in agreement with the report by WHO (2005) which reported that the single most important economic factor contributing to the prevalence of VVF is poverty, especially poverty in rural areas. Woman with fistula come almost exclusively from poor low income families and communities. The finding is also in line with that of Murphy (2006) who reported that fistula patients usually come from poor subsistence farming backgrounds.

Conclusion

The occurrence of vesico vaginal fistula is a serious health problem not only in Uyo Local Government Area but also in Nigeria. The study possibly would show that Vesico Vaginal Fistula is common among young mothers, who are lowly educated and low income. When the mother is young there is an inadequate development of the pelvis and this could lead to prolonged labour.

The implication is that in young mothers prolonged labour should be avoided and a caesarean section operation should be carried out to help both the mother and the child.

Recommendations

Based on the possible findings of this study the following recommendations were made:

- (i) Parents should send their daughters to school instead of pushing them into early marriage.
- (ii) Teenage pregnancy should be avoided.
- (iii) Maternal and reproductive health education should be provided in school and relevant health institution.
- (iv) More public awareness should be created in the media about the causes and problems of Vesico Vaginal Fistula.
- (v) Caesarean section should be done for obstructed labour instead of allowing young mothers go through difficult labour.

References

- Adreoni, B., Brushini, S., & Truzzi, M. (2003). Reproductive health education. London: Longman Ltd.
- Essien, G. E. (2010). Reproductive health education and the prevention of vesico vaginal fistula from Abak Local Government Area. An unpublished first degree project, University of Uyo.
- Hamlin, K. A. (2007). Obstetric fistula. One social calamity two many. British Journal Obstetrics Fistula. Report of a technical workshop group. Geneva: 17-21 April.
- Igbadu. U. (2008). Premarital sex: An overview of causes consequences and control measure. Nigeria School Health Journal, 20(1), 86-90.
- Makinwa A.K. (2005) women education and fertility. Perspectives in population education, 1(1),12-19.
- Murphy, M. (2006). Social consequences of vesico vaginal fistula in northern Nigeria. Journal of Bio social science, 13, 139-150.
- Mustafa, A. Z., & Rushwan, H. M. E. (2001). Acquired genitor- urinan fistulae in the Sudan. Journal of obstetrics and Gynaecology, 78, 1039-1043.
- Ojanuga, N. D. (2002). Education a key to preventing vesico vaginal fistula in Nigeria: World Health Forum, 13, 54-56.
- Riley, V. J. (2004). Female urogenital fistula. Journal of Obstetrics and Gynaecology 76, 1049-1056.
- Tuckman, B. W. (2006). Conducting educational research. New York: Harcourt, Brace, Jorantovich Inc.
- WHO (2005). Maternal mortality and morbidity obstetric fistula: women's Global Network for Reproductive Rights 37, 8-9.