DETERMINANT OF PATIENTS' CHOICE OF MEDICATION FOR TREATMENT OF HEMORRHOID IN EKITI STATE, NIGERIA

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Abstract

This study examined factors determining patients' choice of medication for treatments of hemorrhoid in Ekiti State, Nigeria. A descriptive survey research design was adopted for the study. The population of the study comprised 1,340,954; being the total number of people in the six selected local government areas in Ekiti State. 520 respondents were sampled from this population using the proportionate stratified sampling technique. Primary data used for the study were gathered through the administration of structured questionnaire and personal interview. The sample employed for the In-Depth Interview (IDI) were 24 respondents (4 each) chosen across the entire six local government areas of the State. Data gathered were analysed using both descriptive and inferential statistics. Descriptive statistics involves the use of simple tables and percentages, while multiple regression and correlation analysis were the inferential statistics employed. The study found that peer group influence, gender, age and income in that order are significant factors determining patients' choice of treatment for Jedijedi with t values of 4.724, 3.988, 3.241 and 3.24 respectively. Furthermore, the study found that there is a significant and positive relationship between previous personal experience and treatment of haemorrhoid, with local herbs having R value of 0.214 (weak relationship) and imported medicine at R value of 0.193 (very weak relationship)

Keywords: Hemorrhoid, Medication, Treatments, peer group influence and gender

1.1 Introduction

Diseases are common and somewhat unavoidable situations that cut across all divides, irrespective of class, status, gender, educational attainment, spiritual or religious beliefs and affiliations (Nwosu, Ekpechu, Njemaze, Popoola and Ololo, 2019). Diseases are frequentlyresearched by scholars from health sector and patients alike in the African context. While health practitioners are expected to understand perfectly the concepts of diseases in terms of infections, nutritional deficiencies, hereditary including genetic diseases, non-genetic diseases and physiological diseases. However, the seeming understanding of the ubiquitous conditions of patients and the need to operate at the level of their patients, the health caregiver, be it orthodox (medical doctors, trained nurses, pharmacist) or traditional (herbal clinics, traditional herbal centres, spiritual herbal centres), are often forced to speak the same language with their patients. Among the various diseases in Yoruba-speaking people who are predominantly in the Southwest, Nigeria is Hemorrhoid popularly called 'pile' by the educated Yorubas. In the local parlance, this disease is referred to as *Jedijedi* (Azeez and Isiugo-Abanihe, 2017; Osungunna, Oluremi and Talabi, 2010).

Hemorrhoids, especially when they become abnormal and unmanageable, can manifest both internally, and externally (Lohsiriwat, 2015). The symptoms include painful defecation, bleeding, bloodstain on stool, and a feeling of incomplete defecation. In the African context, there is a general belief that this disease could be

effectively treated via traditional and modern medical means. However, Africans believe that there are some diseases that can only be cured permanently using the traditional means and *Jedijedi* is one of them (Asare and Danquah, 2017). This type of beliefs may be associated with the peculiarity of *Jedijedi,* which has become a recurring incidence among male citizens. Africans also believe that if the disease (*jedijedi*) is unattended to for a very long time, it may affect the functionality of the male organs. However, there are many misconceptions about the disease, because the exact patho-physiology of hemorrhoids is poorly understood (Lohsiriwat, 2015). In essence, many patients refuse surgical options because of their reservations about general anesthesia (Alatise, Agbakwuru, Takure, Adisa and Akinkuolie, 2010). Omole and Adegboye (2012) reported that the poor state of hemorrhoids treatment in Nigeria over the years had formed part of the traditional belief that there is no permanent cure for hemorrhoids. However, there are many treatments for hemorrhoids; these include changes in dietary systems and stooling habits and different surgical interventions (Hemorrhoid Institute of South Texas, 2009).

The different philosophies of hemorrhoids development may lead to different approaches to its treatment (Lohsiriwat, 2012). Similarly, Soladoye, Chukwuma, and Owa (2012) identified some plants that are used to treat diseases such as hemorrhoids, cancer and diabetes mellitus. Interestingly, many individuals suffer from *Jedijedi* without seeking modern medical consultation. Typically, patients are reluctant to seek modern medical help because of the embarrassment, fear, discomfort and pain associated with the treatment (Kaidar-Person, Benjamin, and Steven, 2007). Consequently, the exact incidence of this disease is difficult to estimate. Based on experience, Cleator and Cleator (2010) asserted that hemorrhoids are a common cause of distress and their treatment is often unsatisfactory due to recurrence or complications. Based on the fact that hemorrhoid is commonly associated with sugary and starchy foods, a lot of researchers have been able to empirically investigate patients' choice of medication and treatment of hemorrhoid *(Jedijedi)*, a survey of literature revealed that various studies have been conducted on *Jedijedi*, most especially on the causes, associated risks, types of treatments (herbal, modern and combination of both), overall health implications and symptoms (Nwosu, Ekpechu, Njemaze, Popoola and Ololo, 2019; Azeez and Isiugo-Abanihe, 2017; Odebiyi, 2015; Lohsiriwat, 2015; Omole and Adegboye, 2012; Soladoye, Chukwuma and Owa, 2012). Among all these scholars, only Azeez and Isiugo-Abanihe (2017) evaluated the factors that determine the choice of treatments between private and public tertiary health medical system of *Jedijedi* in Oyo State Nigeria.

Based on the above, the researcher discovered that limited studies have been carried out on patients' choice of medication with reference to this treatment of *Jedijedi;* even the few studies identified failed to adopt the comprehensive factors identified in Daquash (2007) in a study titled "the patients' interview" where he explored factors determining human switching behaviour and choices of treatments the study suggested that out of all the factors relevant to switching behaviour and choices among humans, socio-cultural factors, peer influence, previous personal experience as well as other significant human experience are the most prevalent among others. This study therefore investigated the determinants of patients' choice of medication and treatment of *Jedidedi* in Ekiti State, Nigeria.

3.0 Methodology

This study adopted a descriptive statistical design. This method is favoured by the researcher because the study involved information gathering from the

respondents directly from the field. Specifically, sampled patients with *Jedijedi,* were encountered at various locations, where both orthodox and traditional cares were sought by patients. Both Quantitative and Qualitative methods were integrated for this study. Data needed for this study was sourced through primary data collection methods. Primary data collection was achieved through administration of structured four-point Likert scale questionnaire adapted from Asare and Danquah (2017). Also, the qualitative method adopted In-depth Interview. The total population for the study was 1,340,954

This study adapted Yamane (1967) sampling technique model for determination of study sample. The model formula is depicted as shown below:

$$n = \frac{N}{1 + N(e)^2}$$

Where:
n = anticipated total sample
N = Population size
e = sampling error (0.05)
Hence, the total sample computed as:

$$n = \frac{1{,}340{,}954}{1 + 1{,}340{,}954(0.05)^2} = 400$$

Meanwhile, in order to cater for response bias and missing values as a result of improper filling by the respondents, 30% of the minimum sample provided in the formula was added as suggested by Israel (2013). Hence, 120 respondents were added to the calculated sample size of 400 to arrive at 520 respondents.

4.0 Results

Factors Determining Patients' Choice of Medication for *Jedijedi*

On religion as a determinant of patients' choice of medication for *Jedijedi,* Table 1.1 shows that only 32.7% (161) agreed to the fact that religion determines their choice of medication for *Jedijedi* treatment, while 14.0% (69) were neutral. To this end, religious belief cannot be said to be a significant determinant of patient's choice of medication for *Jedijedi* treatment. One of the IDI participants volunteered information that his sibling who is a member of the Jehovah Witness doctrine will never agree to take any medication for any ailment irrespective of the source (orthodox or local/herbal). It can be concluded herein that religion may not necessarily play a vital role in determining patients' choice of medication for *Jedijedi* treatment.

48.4% (238) of the surveyed respondents agreed that peer group influences their choice of medication for *Jedijedi* treatment, while only 2.6% (13) were neutral. This distribution implies that peer influence may likely impact moderately on patients' choice of medication for *Jedijedi* treatment. Also 42.7% (210) of the surveyed respondents agreed that family background dictates the treatment pattern employed as a cure for hemorrhoid. This equally implies that family background may likely be responsible for choice of *Jedijedi* treatment in Ekiti State.

53.0% (261) of the surveyed respondents were of the opinion that age determines the choice of medication for hemorrhoid treatment. It can be inferred from this distribution that, while an adult may have the capacity and ability to personally choose his or her treatment pattern a dependent may be at the mercy of his or her sponsor for choice of medication for *Jedijedi* treatment. Also, 48.8% (240) of

the respondents agreed that gender determines their choice of treatment of hemorrhoid, while, 41.6% (254) agreed that income determines their choice of hemorrhoid medication.

From the IDI participants, the disgrace associated with consequences of *Jedijedi* as an ailment (traumatic experience associated with blood discharge from the anus, pains at the anus, stomach disorder, weak erection etc.) as well as the type of *Jedijedi* being experienced were considered as the major determinants of treatment pattern for *Jedijedi.* It was unanimously agreed among the participants that herbal (local) treatment is given the pride of first consideration when experiencing internal *Jedijedi,* while orthodox means is often considered for external *Jedijedi* treatment, which requires cutting off of the protruding outer part of the anus. According to the IDI participants, only on rare occasions are herbal medications considered as treatment for external *Jedijedi,* since this type is considered an internal *Jedijedi* not attended to early enough. As a matter of fact, it is only when internal *Jedijedi* defiles local herbs or not attended to early enough that it can lead to the external type. To them, the type of *Jedijedi* being experienced is a major determinant of the choice of treatment to be employed.

Table 1.1: Factor Determining Patients' Choice of Medications for *Jedijedi* Treatment

S/N	Variables	No	I Don't Know	Yes	Total
1	My religion determines the treatment for *Jedijedi*	262 (49.0)	69 (14.0)	161 (32.7)	492 (100.0)
2	Peer group influences my choice of medication	241 (53.3)	13 (2.6)	238 (48.4)	492 (100.0)
3	The family background dictates the medicine to be used to cure *Jedijedi*	270 (54.9)	12 (2.4)	210 (42.7)	492 (100.0)
4	Age determines the choice of medication for *Jedijedi*	179 (36.4)	52 (10.6)	261 (53.0)	492 (100.0)
5	Gender also determines the choice of treatment for hemorrhoid	206 (41.9)	46 (9.3)	240 (48.8)	492 (100.0)
6	Income determines the choice of medication I used for *Jedijedi*	231 (47.0)	7 (1.4)	254 (51.6)	492 (100.0)

Source: Author's Computation, (2019)

Inferential Statistic of determinants of Choice of Medications for *Jedijedi* Treatment

The statistical results in Table 1.2 was employed using six explanatory variables (Religion, Peer Group, Family Background, Age, Gender and Income) as measures of factors determining patients' choice.

From Table 1.2, the R (Regression Coefficient) gives a positive value of 0.356; this indicates that factors determining patient's choice has a moderate and positive effect on treatment of hemorrhoid. The R^2 is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. From the results obtained, R^2 is equal to 0.127. This implies that factors determining patients' choice will bring about only 12.7% variation in the patients' choice of medication. This is further proved by the adjusted R^2 value that shows the goodness of fit of the model which gives a value of

0.116, implying that, when all errors are corrected and adjustments made, the model can only account for 11.6% of factors determining patient's choice of medications in the surveyed local government areas of Ekiti State. However, the six explanatory variables were subjected to multiple regression analysis as shown in Table 1.2.

From the Table 1.2, the unstandardised β co-efficient of religion gives a positive value of 0.237 with t= 5.811 and P= 0.000 < 0.05. This result showed that religion has a positive effect on treatment of hemorrhoid. This means that respondents' reason for treatment of hemorrhoid is influenced by religion. However, the result showed that religion determines the treatment of hemorrhoid contrary to the results of descriptive analysis. The unstandardised β co-efficient of type of hemorrhoid gives a positive value of 0.230 with t= 4.724 and P= 0.000 < 0.05. This result showed that peer group has a positive significant effect on treatment of hemorrhoid, therefore, it was found significant. This means that respondents' reason for treatment of hemorrhoid is positively influenced by peer group. While this output varies from that of the descriptive analysis a bit, it lends credence to the revelations from the IDI participants, meaning that peer group influences the choice of hemorrhoid medication.

The unstandardised β co-efficient of family background gives a positive value of 0.164 with t= 2.574 and P= 0.010< 0.05. This result showed that family background has a positive significant effect on treatment of hemorrhoid, therefore, it was found significant. This means that respondents' reason for treatment of hemorrhoid is positively influenced by family background as shown in Table 4.8. The result showed that family background dictates patients' choice of medication while treating hemorrhoids.

The unstandardised β co-efficient of age gives a positive value of 0.183 with t= 3.241 and (P= 0.001 < 0.05). This result showed that age has a positive significant effect on treatment of hemorrhoid, therefore, it was found significant. This means that respondents' reason for treatment of hemorrhoid is positively influenced by age. The result showed that age determines the choice of medicine for hemorrhoid.

The unstandardised β co-efficient of gender gives a positive value of 0.198 with t= 3.988 and P= 0.000 < 0.05. This result showed that gender has a positive significant effect on treatment of hemorrhoid, therefore, it was found significant. This means that respondents' reason for treatment of hemorrhoid is positively influenced by gender. The result also showed that gender determines the choice of treatment for hemorrhoid. The unstandardised β co-efficient of income gives a positive value of 0.181 with t= 3.324 and P= 0.001 < 0.05. This result showed that income has a positive significant effect on treatment of hemorrhoid, therefore, it was found significant. This means that respondents' reason for choice of treatment method for hemorrhoid is positively influenced by income as shown in Table 4.8. The result showed that income determines the choice of medication used for hemorrhoid.

In all, all factors categorised as the sub-explanatory variables significantly determines patients' choice of treatment for *Jedijedi* in Ekiti State, Nigeria, with religion, peer group influence, gender, age and income taking the first to the fifth ranks respectively as revealed in Table 4.8.

Table 1.2: Regression Results of Factors Determining Patient's Choice

Model	R	R^2	Adj R^2	B	Std Error	T value	P Value	Rank
	0.356	0.127	0.116					
Religion				.237	.034	5.811	.000	1st
Peer Group				.230	.038	4.724	.000	2nd
Family Background				.164	.035	2.574	.010	6th
Age				.183	.036	3.241	.001	4th
Gender				.198	.035	3.988	.000	3rd
Income				.181	.034	3.324	.001	5th
Constant				1.830	.078	23.384	.000	

Source: Field Survey, (2019)

Summary of Findings

The study found that religion, peer group influence, gender, age and income; in that order are significant factors determining patient's choice of treatment for *Jedijedi* in Ekiti State. This is another empirical validation of the position of Atkinson and Jeffery (2009) where the factors were succinctly enumerated.

5.0 Conclusion and Recommendation

Based on the findings of this study, It was concluded that treatment pattern constructs have positive significant effects on treatment of hemorrhoid except treatment pattern accessibility which has a negative effect on treatment of hemorrhoid; more so, factors determining patient's choice constructs have positive significant effects on treatment of hemorrhoid

Recommendation

Since patients are likely to unrepentantly patronise local herbal treatment for *Jedijedi*, government may need to encourage wider laboratory tests of all herbs as being consumed by patients to avoid picking up another ailment in the course of treating hemorrhoid. Also, government should foster a symbiotic collaboration between unorthodox and orthodox medical practitioners in Ekiti State. This may likely assist in documenting the efficacies of ubiquitous local herbal medications, since residents appear to believe more in its efficacy for the treatment of *Jedijedi.*

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