Hemorrhoids Among People of Sifawa Community in Sokoto State

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Abstract: Hemorrhoid is an anorectal disease and is a common diagnosis in most parts of the world. There are numerous causes, signs and symptoms of hemorrhoids. The objective of the study was to identify the awareness and prevalence level of hemorrhoids as well as the knowledge level among people of Sifawa community in Sokoto State. A descriptive cross sectional study was conducted and it involved the use of a self-administered questionnaire. The study was first introduced to the participants, consent was thereafter gotten and the questionnaires were then administered to the participants to give answers to the questions. Out of the participants, 202 (54.0%) of the respondents had heard about hemorrhoids. However, only 46 (12.3%) have been diagnosed of it. The knowledge level was graded. 24 (11.9%) of the respondents had poor knowledge level, 139 (68.8%) had fair knowledge level while the remaining 39 (19.3%) had good knowledge level. There was moderate awareness for hemorrhoids among the respondents as well as fair knowledge level. The points towards the need for public health education to enlighten the public more on hemorrhoids and ways to prevent it or manage it should it occur. This is also necessary due to the possibility of increasing morbidity and mortality from the disease.

Keywords: Hemorrhoids, Piles, Anorectal Disease, Knowledge, Prevalence, Awareness

1. Introduction

Hemorrhoids or piles is an anorectal disease which affects three parts of the body; perianal area, anal canal and lower portion of rectum [1]. Hemorrhoids is a varicose and often inflamed or swollen condition of the veins, inside or just outside the rectum, caused by increased pressure in the rectal veins, which displace the anal cushions [2].

Hemorrhoidal disease is said to be the fourth leading outpatient gastrointestinal diagnosis, accounting or 3.3 million ambulatory care visits in United States [3]. The estimated worldwide prevalence of hemorrhoids in the general population is to be around 4.4% [4]. The prevalence of hemorrhoids among Egypt patients subjected to colonoscopy was 18% [5]. Although so common, only around 4% seek medical help [6]. In Nigeria, no studies were found focusing on hemorrhoids and its awareness or knowledge in the population. This was the motivation that led to this research.

Hemorrhoids are proposed to be caused by temperature, body habits, customs, passions, sedentary lifestyle, tight laced clothes, climate [7]. Heavy lifting and other strenuous activities can also result in hemorrhoids [8]. Other causes are spinal cord injuries, constipation, chronic diarrhea, poor bathroom habits, postponing bowel movements, and poor fibre diet [9]. Diarrhea, cough, sneezing, vomiting, heart failure, portal hypertension and physical exertion increase the pressure within the hemorrhoidal vessels and thereby many precipitate hemorrhoids [10]. It can also be caused by constipation and unsatisfactory defecation characterized by infrequent stool, difficulty in defecation or both at least for previous 3 months [11].

Anal itching, anal pain, bright red blood on toilet, pain during bowel movement, hard tender perianal mass and sensation of tissue prolapsed are the symptoms hemorrhoids [12]. The symptoms of hemorrhoids frequently get better after a few days with constant skin tag after the healing of external hemorrhoids [13].

The complications of hemorrhoids include profuse hemorrhage, anemia, strangulation, ulceration, thrombosis and gangrene. The most common and serious complications of hemorrhoids include perianal thrombosis and incarcerated prolapsed internal hemorrhoid with subsequent thrombosis [14].

There are many treatments or hemorrhoids. These include change in dietary and stooling habits and different surgical interventions [15]. It can be non-operative (dietary adjustments, sitz bath, antibiotics, and analgesics) or surgical method. Typically, patients are reluctant to seek medical help because of the embarrassment, fear, discomfort and pain associated with the treatment [16]. Though some patients need to undergo surgery, many hemorrhoid patients are successfully treated with conservative medications and ointment [17].

The objective of the study was to identify the awareness and prevalence of hemorrhoids as well as the knowledge level among people of Sifawa community in Sokoto State.

2. Methods

2.1. Study Area

The study was conducted in a facility in Sifawa community which is visited by numerous members of the community. 8DMSH is a 36 bed hospital that consists of general ward, maternity ward, outpatient department, physiotherapy, X-Ray, theatre, kitchen, administrative department, pharmacy, laundry, laboratory, record, nursing and mortuary.

2.2. Study Population

The source population of the study was all adult patients above 18 years old who visited the outpatient department at the hospital during the time of data collection at the hospital. A total of 374 respondents were chosen from the area based on simple random sampling method. They were all mentally stable at the time of the study. They were also psychologically and physically willing to participate.

2.3. Data Collection

The study was a cross-sectional descriptive study carried out among the adult population in Sifawa community of Sokoto State towards the knowledge, awareness and prevalence of hemorrhoids.

The self-administered questionnaire was adopted from different works of literature and was used to achieve the aim of the research. It was designed to assess the knowledge and awareness of the respondents on hemorrhoids, its cause and symptoms as well as the prevalence in that population.

Simple language devoid of medical jargons was used.

A pretest was carried out at primary health care center, Sifawa using 10% of sample size and corrections and modifications were made accordingly. Patients who were unable to communicate, mentally ill and severely ill were excluded from the study.

The study protocol was approved by the ethical review committee of the hospital. Consent was gotten after proper introduction and description of the research topic and objectives. They were also assured of the confidentiality of the answers and could stop the interview at any time if they want to.

2.4. Study Protocol

From the study [18], it was estimated that the prevalence of hemorrhoids was 67%. The sample size was determined using a single population proportion formula by using a 95% confidence interval, 0.05 margin of error and 10% nonresponse rate. The minimum sample size for this study will be determined by this equation [19]:

$$N = \frac{Z\alpha^2 \times P(1-P)}{D^2}$$

N = 339.75

An addition of 10% to make up for attrition will bring the sample size to 374.

2.5. Data Analysis

After data collection, each questionnaire was checked for completeness visually. The data was coded, entered and analyzed using SPSS (Statistical Package for Social Sciences) version 24.0 and Microsoft Excel 2016. Data was presented in tables and pie chart. Descriptive statistics like frequency, percentage, median, range were done to describe the study population in relation to different variable.

The awareness and prevalence level was determined by the response to the questions asked in the questionnaire on if they have heard of hemorrhoids or if they have hemorrhoids respectively. It was as self-reported by the respondents in the questionnaires without the use of a diagnostic test or procedure. The knowledge level was determined by various sets of questions which are included in the questionnaires. Knowledge regarding hemorrhoids was assessed using 19 items covering the cause, symptoms, complications and preventive measures. For knowledge points, each correct answer was scored with 1 point and each wrong answer was scored with 0 point. The overall discrete scores for the different items were summed together and converted to percentage to get the knowledge level. The knowledge level was graded into poor knowledge level (<50%), fair knowledge level (50-75%) and good knowledge level (>75%).

Univariant relationships between participants data and their knowledge level were assessed using the Pearson's Chi squared test. A p-value of less than 0.05 was considered to be statistically significant.

3. Results

A total of 374 questionnaires were distributed to 80 males (21.4%) and 294 females (78.6%) with mean age of 30.91±9.77. Table 1 shows the socio-demographic characteristics of respondents. The largest group (52.9%) is aged 18-29 years. 55.1% are Christians and 44.9% are Muslims. Majority of the respondents are secondary school degree holders (74.3%), Hausa (50.8%), married (73.0%) and housewives (29.9%).

Table 2 presents the awareness and prevalence of respondents on hemorrhoids. The awareness rate of hemorrhoids is 54.0% while the prevalence rate is 22.7%.
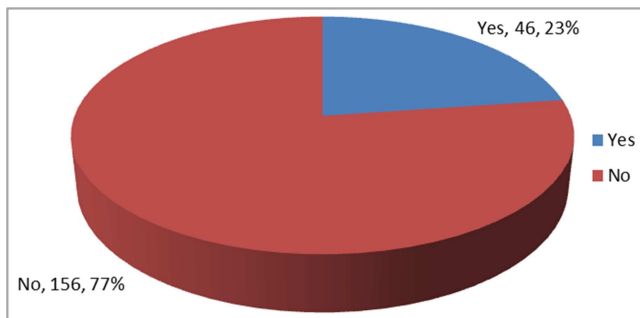

Figure 1. *Prevalence of hemorrhoids among respondents.*

Figure 1 shows the prevalence rate of hemorrhoids among the respondents. 22.7% of the respondents have been diagnosed of hemorrhoids while the remaining 77.3% have not.

Table 3 presents the knowledge of hemorrhoids among respondents. It showed the various percentages for the knowledge of the participants on the symptoms, causes, complications and treatment of hemorrhoids.

Table 4 shows the knowledge level of hemorrhoids among respondents. 11.9% have poor knowledge level, 68.8% have fair knowledge level while the remaining 19.3% have good knowledge level.

Table 5 presents the relationship between socio-demographic factors of the respondents and their knowledge level. There is a statistically significant relationship between the knowledge level and gender (p-value of 0.000), religion (p-value of 0.002), highest level of education (p-value of 0.016), ethnicity (p-value of 0.000), marital status (p-value of 0.000) and occupation (p-value of 0.000) but not for age (p-value of 0.086).

Table 6 presents the relationship between prevalence of hemorrhoids among the respondents and their knowledge level. There is a statistically significant relationship between the two variables (p-value of 0.010).

Table 1. *Socio-demographic characteristics of respondents, n=374.*

Variable	Frequency	Percent (%)
Age as at last birthday (years)		
18-29	198	52.9
30-39	123	32.9
40-49	25	6.7
≥50	28	7.5

Variable	Frequency	Percent (%)
Mean Age (Standard deviation)	30.91 (9.77)	
Gender		
Male	80	21.4
Female	294	78.6
Religion		
Christianity	206	55.1
Islam	168	44.9
Highest Level of Education		
None	19	5.1
Primary	13	3.5
Secondary	278	74.3
Tertiary	64	17.1
Ethnicity		
Igbo	21	5.6
Yoruba	37	9.9
Hausa	190	50.8
Others	126	33.7
Marital Status		
Single	101	27.0
Married	273	73.0
Occupation		
Student	60	16.0
Housewife	112	29.9
Civil servant	93	24.9
Self-employed	109	29.1

Table 2. *Awareness and Prevalence of Hemorrhoid among respondents, n=374.*

Variable	Frequency	Percent (%)
Have you heard of Hemorrhoids?		
Yes	202	54.0
No	172	46.0
Do you have Hemorrhoids?		
Yes	46	22.7
No	156	77.3

Table 3. *Knowledge of Hemorrhoids among respondents, n=202.*

Variable	Frequency	Percent (%)
Which are the symptoms of hemorrhoids?		
Itching	74	36.6
Blood on stool	79	39.1
Diarrhea	156	77.2
Mass through anus	53	26.2
Anal pain	174	86.1
What are the causes of hemorrhoids?		
Tight pants	172	85.1
Chronic constipation	85	42.1
Pregnancy	115	56.9
Lack of sports	51	25.2
Straining during defecation	60	29.7
Chronic cough	142	70.3
What are the complications for hemorrhoids?		
Hypertension	47	23.3
Diabetes	19	9.4
Anemia	160	79.2
What are the treatment methods for hemorrhoids?		
Sleeping well	63	31.2
Stop smoking	133	65.8
Drinking lots of water	202	100
Fasting	38	18.8
Go to doctor	202	100

Table 4. *Knowledge Level of Hemorrhoids among respondents, n=202.*

Variable	Frequency	Percent (%)
Knowledge Level		
Poor knowledge level	24	11.9
Fair knowledge level	139	68.8
Good knowledge level	39	19.3

Table 5. *Relationship between socio-demographic characteristics and knowledge level, n=202.*

Socio-demographic charactersitics	Knowledge Level			X^2 value	P - value
	Poor Freq (%)	Fair Freq (%)	Good Freq (%)		
Age as at last birthday (years)				8.163	0.086
18-29	12 (13.6)	65 (73.9)	11 (12.5)		
30-39	12 (12.9)	60 (64.5)	21 (22.6)		
40-49	0 (0)	0 (0)	0 (0)		
≥50	0 (0)	14 (66.7)	7 (33.3)		
Gender				82.528	0.000
Male	5 (10.9)	11 (23.9)	30 (65.2)		
Female	19 (12.2)	128 (82.1)	9 (5.8)		
Religion				12.941	0.002
Christianity	5 (4.5)	80 (72.7)	25 (22.7)		
Islam	19 (20.7)	59 (64.1)	14 (15.2)		
Highest Level of Education				12.261	0.016
None	5 (41.7)	7 (58.3)	0 (0)		
Primary	0 (0)	0 (0)	0 (0)		
Secondary	14 (9.7)	100 (69.4)	30 (20.8)		
Tertiary	5 (10.9)	32 (69.6)	9 (19.6)		
Ethnicity				42.507	0.000
Igbo	0 (0)	0 (0)	9 (100)		
Yoruba	0 (0)	0 (0)	0 (0)		
Hausa	12 (11.5)	71 (68.3)	21 (20.2)		
Others	12 (13.5)	68 (76.4)	9 (10.1)		
Marital Status				59.441	0.000
Single	5 (12.2)	11 (26.8)	25 (61.0)		
Married	19 (11.8)	128 (79.5)	14 (8.7)		
Occupation				47.807	0.000
Student	0 (0)	7 (100)	0 (0)		
Housewife	14 (20.3)	48 (69.6)	7 (10.1)		
Civil servant	5 (6.5)	40 (51.9)	32 (41.6)		
Self-employed	5 (10.2)	44 (89.8)	0 (0)		

Table 6. *Relationship between knowledge level and prevalence of Hemorrhoids among respondents, n=202.*

	Knowledge Level			X^2 value	P - value
	Poor Freq (%)	Fair Freq (%)	Good Freq (%)		
Do you have hemorrhoids?				9.251	0.010
Yes	5 (10.9)	25 (54.3)	16 (34.8)		
No	19 (12.2)	114 (73.1)	23 (14.7)		

4. Discussion

The present study is aimed to determine the awareness, prevalence and knowledge towards hemorrhoids among people of Sifawa community in Sokoto State. The sample is made of 374 respondents drawn from members of that community.

The first group of factors assessed was socio-demographic characteristics including age, sex, religion, education, ethnicity, occupation, marital status. The second was awareness and prevalence of hemorrhoids. The third group assessed was the knowledge based on symptoms, causes, complications and prevention.

In this study, the prevalence was found to be 22.7%. The result is higher than the studies conducted in Israel - 16% [20] and Korea - 14.4% [21]. However, it is lower than the study from Australia - 38.9% [22].

The age distribution is between 18 years and 65 years. The mean age is 30.91 years with a standard deviation of 9.77 years. The majority of the respondents are aged between 18-29 years (52.9%); the remaining age groups are 30-39 years (32.9%), 40-49 years (6.7%) and more than 50 years (7.5%). Most common age group was 18-29 years which was in concordance this study [23], where the most common age group was close with age range of 20-39 years.

78.6% of the respondents are females while the remaining 21.4% are males. 55.1% are Christians and 44.9% are Muslims. The educational levels attained by the respondents are no education (5.1%), primary level (3.5%), secondary level (74.3%) and tertiary level (17.1%). 50.8% of the respondents are Hausas, 9.9% are Yoruba, 5.6% are Igbo and the remaining 33.7% are of other ethnic groups. 73.0% are married while 27.0% are single. The occupations of the respondents are housewives (29.9%), self-employed (29.1%), civil servants (24.9%), and students (16.0%). Majority of the respondents are housewives. This can be attributed to the fact that majority of the respondents are female as well as the fact that majority had just secondary level of education.

Out of the 374 respondents, 202 (54.0%) have heard of hemorrhoids which means that the awareness level is 54% in the community. This can be as a result of the interchange between the hemorrhoids and pile commonly in the community.

Similarly, 46 respondents (22.7%) have been diagnosed of hemorrhoids which mean that the prevalence rate of hemorrhoids in the population is 22.7%. This is far higher than the worldwide prevalence of 4.4% [4]. However, it is closer to the prevalence of hemorrhoids among Egypt patients subjected to colonoscopy which was 18% [5].

The knowledge of hemorrhoids was then assessed among the respondents who were aware of the disease. The symptoms of hemorrhoids assessed and selected by the respondents included itching (36.6%), blood on stool (39.1%), diarrhea (77.2%), mass through anus (26.2%) and anal pain (86.1%). This can be related to Sun et al 2016 which reveals that anal itching, anal pain, bright red blood on toilet, pain during bowel movement, hard tender perianal mass and sensation of tissue prolapsed are symptoms of hemorrhoids. The causes of hemorrhoids selected included tight pants (85.1%), chronic constipation (42.1%), pregnancy (56.9%), lack of sports (25.2%), straining during defecation (29.7%) and chronic cough (70.3%). The complications include hypertension (23.3%), diabetes (9.4%) and anaemia (79.2%). The treatment methods include sleeping well (31.2%), stop smoking (65.8%), drinking lots of water (100%), fasting (18.8%) and visiting a doctor (100%). This contradicts the study [24] which revealed that many patients treat the symptoms of hemorrhoids themselves without medical advice and that they seek the treatment for the hemorrhoids only when the symptoms get worse.

The answers to each knowledge question were scored as explained in the data analysis section. 24 respondents (11.9%) had poor knowledge level; 139 (68.8%) had fair knowledge level while the remaining 39 respondents (19.3%) had good knowledge level. The percentage of respondents with poor and good knowledge is similar. This could be due to the fact that there was combination of illiterates and literates in the rural area. This could also be due to the fact that some of them did not receive adequate information from health care personnel. This suggests that there is a need for more physician education of their patients as well as public health promotion about hemorrhoids. Poor awareness and knowledge of hemorrhoids especially the symptomatology can lead to delayed presentation to the hospital.

There is a statistically significant relationship between the knowledge level and gender (p-value of 0.000), religion (p-value of 0.002), highest level of education (p-value of 0.016), ethnicity (p-value of 0.000), marital status (p-value of 0.000) and occupation (0.000). However, there is no significant relationship between the knowledge level and age (p-value of 0.086). This is not in keeping with the study [25] which shows that there was no significant difference found in the two sexes. Contradiction was also noted in a study [26] who observed that patients above 40 years were more at risk than those below.

Statistically significant differences were found between patient's level of knowledge score and occupation, in favour of housewives and civil servants. It was also reported that statistically significant difference was observed between the patient's level of knowledge score and religion, in favour of Christians and education degree in favour of patients with secondary education.

There is also a statistically significant difference between the knowledge level and prevalence of hemorrhoids among the respondents (p-value of 0.010). This can be due to continuous use of the term in everyday conversation. This can also be due to the fact that people diagnosed with the disease have received health education on the disease and may have experienced some of the manifestations previously.

5. Conclusion

The study revealed that there was fair knowledge level on hemorrhoids. This is attributed to the various socio-demographic characteristics like age and educational background of the respondents.

The prevalence of hemorrhoids has been gradually increasing globally over the years. Prevalence of the disease was below 50% and is affected by factors which also affect knowledge level. It is quite necessary to know if people know about the disease, its causes and everything needed to know about the disease in order to reduce. The awareness level of hemorrhoids was 54% among the general population. The knowledge level was somewhat in-between. Hence various methods of health education and health programs must be implemented to ensure that the knowledge levels would be improved.

6. Recommendation

Patients and members of the community should be educated adequately and appropriated about their disease conditions as well as the health related practices.

Health care providers should receive educational programs about the disease conditions to further impact more on the patients.

Further research and studies should be done to know the knowledge and prevalence rate in other communities in Nigeria.

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