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Research Article

Understanding Hemorrhoids: Assessing Awareness and Knowledge in Bilaspur

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Abstract: Background: Hemorrhoids, or piles, are common anorectal conditions characterized by swollen veins in the rectum and anus, leading to symptoms like pain, itching, and bleeding. Despite their prevalence, awareness and understanding of hemorrhoids are limited, especially in rural areas. This study aims to assess the knowledge of hemorrhoids among the general public in District Bilaspur, Himachal Pradesh, to guide educational interventions. **Material & Methods:** A descriptive, cross-sectional survey was conducted from January to May 2024 in District Bilaspur. The study included 400 adults aged 18 and above, who had lived in Bilaspur for at least 12 months. Data were collected via a pre-tested Google form questionnaire covering socio-demographic variables and knowledge about hemorrhoids. Analysis was performed using Epi Info V7 software. **Results:** The socio-demographic profile revealed a diverse and balanced sample. The age distribution showed 31.5% were aged 18-30 years, 23.8% were aged 31-40 years, 21.0% were aged 41-50 years, and 23.8% were over 50 years old. Gender distribution was nearly equal, with 49.5% male and 50.5% female participants. Knowledge regarding symptoms was relatively high, with 78.5% having heard of hemorrhoids and 71.8% aware that hemorrhoids can cause pain. Awareness of causes and risk factors varied, with 62.0% knowing that chronic constipation can cause hemorrhoids. Knowledge of prevention and treatment measures was moderate, with significant gaps identified. **Conclusion:** The findings reveal gaps in the comprehensive knowledge of hemorrhoids among the public in Bilaspur. While basic awareness is adequate, there is a need for targeted educational programs to improve understanding of symptoms, causes, prevention, and treatment. Effective public health campaigns are essential to enhance health literacy and outcomes.

Keywords: : Hemorrhoids, awareness, knowledge, public health education, Bilaspur, rural health, anorectal conditions, prevention, treatment, community health.

INTRODUCTION

Hemorrhoids, commonly known as piles, are a prevalent anorectal condition that affects a significant portion of the adult population globally. Characterized by swollen and inflamed veins in the rectum and anus, hemorrhoids can cause a range of symptoms including pain, itching, swelling, and bleeding during bowel movements. While hemorrhoids are not life-threatening, they can cause considerable discomfort and negatively impact the quality of life. The condition is broadly classified into two types: internal hemorrhoids, which develop inside the rectum, and external hemorrhoids, which occur under the skin around the anus. Factors such as chronic constipation, straining during bowel movements, a low-fiber diet, and prolonged sitting can increase the risk of developing hemorrhoids.[1-7]

Despite the high prevalence and the potential for significant discomfort, public awareness and understanding of hemorrhoids remain limited. Many individuals are unaware of the symptoms, causes, and treatment options available, which can lead to delayed diagnosis and management. This lack of awareness can result in the progression of the condition and the development of complications such as anemia from chronic blood loss or strangulated hemorrhoids.

In rural and semi-urban areas, like District Bilaspur in Himachal Pradesh, India, the challenge of raising awareness about hemorrhoids is even more pronounced. Limited access to healthcare resources, traditional beliefs, and low levels of health literacy can impede the timely recognition and management of hemorrhoids. Understanding the level of awareness and knowledge about hemorrhoids among the general public in Bilaspur is crucial for designing effective educational interventions that can improve health outcomes.

Previous studies have highlighted the importance of public health education in managing common conditions like hemorrhoids. However, there is a paucity of data specifically addressing the awareness and knowledge of hemorrhoids in rural Indian settings. This study aims to fill this gap by assessing the awareness and knowledge levels of hemorrhoids among the general public in Bilaspur. By identifying gaps in knowledge and misconceptions, this study seeks to inform public health strategies and educational programs tailored to enhance the understanding of hemorrhoids. Such initiatives are essential for promoting early diagnosis and treatment, ultimately reducing the burden of hemorrhoids on the healthcare system and improving the quality of life for affected individuals.

By providing a detailed analysis of the current state of awareness, this study aims to lay the foundation for future interventions that can mitigate the risks associated with delayed treatment of hemorrhoids, ensuring better health outcomes for the community. Through this research, we seek to contribute to the body of knowledge on public health education, emphasizing the need for targeted awareness campaigns in regions with limited access to medical information.

Objectives of the Study:
The primary objective is to gauge awareness and knowledge about Hemorrhoids among general public of District Bilaspur ,Himachal Pradesh.

RESEARCH METHODOLOGY

- Research Approach -Descriptive
- Research Design- Cross-sectional survey design
- Study area: District Bilaspur , Himachal Pradesh
- Study duration- between January 2024 to May 2024
- Study population: The study's target population encompassed all adults aged 18 and above who had been residents of District Bilaspur Himachal Pradesh for a minimum of 12 months
- Sample size- A robust sample size of 400 adults was determined using a 95% confidence level, an estimated knowledge level of 50% regarding Hemorrhoids , a precise 5% absolute error margin, and a conservative 5% non-response rate.
- Study tool: A google form questionnaire consisting of questions regarding socio-demography and knowledge regarding Hemorrhoids was created. The questionnaire was initially pre-tested on a small number of participants to identify any difficulty in understanding by the respondents.
- Description of Tool-
  a) Demographic data survey instrument: The demographic form elicited information on participants' background: age, marital status, religion, employment, education and many more.
  b) Questionnaire: The questionnaire contains 20 structured knowledge related questions regarding Hemorrhoids. One mark was given for each correct answer and zero for incorrect answer. The maximum score was 20 and minimum score was zero. Scoring was done on the basis of marks as >80%(16-20)=very good,60-79%(12-15) =Good,41-59% (8-11)=Fair,<40% (< 8)=poor
- Validity of tool - by the experts in this field
- Data collection- Data was collected under the guidance of supervisors. The google form questionnaire was circulated among the residents of District Bilaspur Himachal Pradesh for responses using online modes like e-mail and social media platforms like Whatsapp groups, Facebook, Instagram and Linkedin till the 400 responses were collected.
- Data analysis- Data was collected and entered in Microsoft excel spread sheet, cleaned for errors and analyzed with Epi Info V7 Software with appropriate statistical test in terms of frequencies and percentage.
- Ethical Considerations- Participants confidentiality and anonymity was maintained.

RESULTS

The study assessed the socio-demographic characteristics and the awareness and knowledge of hemorrhoids among the general public in District Bilaspur, Himachal Pradesh. A total of 400 participants were surveyed, providing a comprehensive view of the population's understanding of hemorrhoids.

The socio-demographic profile of the study population is summarized in Table 1. The age distribution revealed that 31.5% of the participants were between 18-30 years old, 23.8% were aged 31-40 years, 21.0% fell within the 41-50 year range, and 23.8% were over 50 years old. The gender distribution was nearly equal, with 49.5% male and 50.5% female participants. Regarding marital status, the majority were married (58.0%), followed by single individuals (38.0%) and others (4.0%). In terms of religion, most participants were Hindu (82.3%), followed by Muslims (6.8%), Sikhs (7.8%), and others (3.3%). Employment status showed that nearly half of the participants were employed (48.8%), with the remainder being unemployed (27.0%) or students (24.2%). Educational attainment varied, with 12.8% having education below high school, 27.0% completing high school, 35.5% holding a graduate degree, and 24.8% having postgraduate or higher education. This diverse socio-demographic profile provided a broad perspective on the awareness levels within the community.

Table 1: Socio-Demographic Variables of the Study Population (N=400)

Variable	Categories	Frequency (n)	Percentage (%)
Age	18-30	126	31.5
	31-40	95	23.8
	41-50	84	21.0
	>50	95	23.8
Gender	Male	198	49.5
	Female	202	50.5
Marital Status	Single	152	38.0
	Married	232	58.0
	Others	16	4.0
Religion	Hindu	329	82.3
	Muslim	27	6.8
	Sikh	31	7.8
	Others	13	3.3
Employment	Employed	195	48.8
	Unemployed	108	27.0
	Student	97	24.2
Education	Below High School	51	12.8
	High School	108	27.0
	Graduate	142	35.5
	Postgraduate	99	24.8

Table 2 highlights the participants' knowledge regarding the symptoms of hemorrhoids. A significant portion of the population had heard of hemorrhoids (78.5%) and knew that hemorrhoids can cause pain (71.8%). Additionally, 69.8% of participants were aware that hemorrhoids can cause itching, 66.0% knew about bleeding during bowel movements as a symptom, and 64.5% recognized swelling as a symptom of hemorrhoids. These findings suggest a relatively high level of awareness regarding the common symptoms associated with hemorrhoids.

Table 2: Knowledge Regarding Symptoms of Hemorrhoids (N=400)

Question No.	Awareness Question	Correct Answer Frequency (n)	Correct Answer Percentage (%)
1	Have you heard of hemorrhoids (piles)?	314	78.5
2	Do you know that hemorrhoids can cause pain?	287	71.8
3	Do you know that hemorrhoids can cause itching?	279	69.8
4	Do you know that hemorrhoids can cause bleeding during bowel movements?	264	66.0
5	Do you know that hemorrhoids can cause swelling?	258	64.5

Table 3 presents the knowledge regarding the causes and risk factors of hemorrhoids. Participants' awareness that chronic constipation can cause hemorrhoids was relatively high (62.0%). Knowledge about other risk factors was also notable, with 59.8% aware that straining during bowel movements can cause hemorrhoids, 57.8% knowing that a low-fiber diet can increase the risk, 56.3% understanding that prolonged sitting can elevate the risk, and 53.8% aware of the genetic predisposition for hemorrhoids. These results highlight the need for increased education on the various risk factors associated with hemorrhoids to promote better prevention strategies.

Table 3: Knowledge Regarding Causes and Risk Factors of Hemorrhoids (N=400)

Question No.	Awareness Question	Correct Answer Frequency (n)	Correct Answer Percentage (%)
6	Do you know that chronic constipation can cause hemorrhoids?	248	62.0
7	Do you know that straining during bowel movements can cause hemorrhoids?	239	59.8
8	Do you know that a low-fiber diet can increase the risk of hemorrhoids?	231	57.8
9	Do you know that prolonged sitting can increase the risk of hemorrhoids?	225	56.3
10	Do you know that hemorrhoids can run in families (genetic predisposition)?	215	53.8

Table 4 shows the participants' awareness of the preventive measures for hemorrhoids. Awareness that dietary changes can help prevent hemorrhoids was moderate (52.0%), and 50.3% knew that increasing fiber intake can help in prevention. Additionally, 48.5% were aware that drinking plenty of fluids can prevent hemorrhoids, 45.5% recognized the importance of regular exercise, and 44.0% knew that avoiding prolonged sitting can help prevent the condition. These findings indicate a need for improved public education on lifestyle modifications that can prevent hemorrhoids.

Table 4: Knowledge Regarding Prevention of Hemorrhoids (N=400)

Question No.	Awareness Question	Correct Answer Frequency (n)	Correct Answer Percentage (%)
11	Do you know that dietary changes can help prevent hemorrhoids?	208	52.0
12	Do you know that increasing fiber intake can help prevent hemorrhoids?	201	50.3
13	Do you know that drinking plenty of fluids can help prevent hemorrhoids?	194	48.5
14	Do you know that regular exercise can help prevent hemorrhoids?	182	45.5
15	Do you know that avoiding prolonged sitting can help prevent hemorrhoids?	176	44.0

Table 5 details the participants' knowledge about the treatment and management of hemorrhoids. Awareness of over-the-counter treatments was 46.8%, and 43.8% knew that medical procedures can treat severe hemorrhoids. Additionally, 41.3% were aware that sitting in a warm bath can help relieve symptoms, 39.5% knew about topical treatments for symptom relief, and 36.8% were aware that surgical intervention might be necessary for severe cases. These findings suggest that while there is some awareness of treatment options, comprehensive knowledge about all available treatments is insufficient.

Table 5: Knowledge Regarding Treatment and Management of Hemorrhoids (N=400)

Question No.	Awareness Question	Correct Answer Frequency (n)	Correct Answer Percentage (%)
16	Do you know that over-the-counter treatments are available for hemorrhoids?	187	46.8
17	Do you know that medical procedures can treat severe hemorrhoids?	175	43.8
18	Do you know that sitting in a warm bath can help	165	41.3

	relieve hemorrhoid symptoms?		
19	Do you know that topical treatments can provide relief from hemorrhoid symptoms?	158	39.5
20	Do you know that surgical intervention may be necessary for severe cases of hemorrhoids?	147	36.8

Table 6 categorizes the overall knowledge scores of the participants regarding hemorrhoids. A significant portion of the population demonstrated high knowledge levels, with 24.5% falling into the Very Good category (scores between 16-20) and 29.5% in the Good category (scores between 12-15). The Fair category (scores between 8-11) included 27.0% of respondents, while 19.0% had Poor knowledge (scores below 8). These results underscore the variability in knowledge levels within the community and highlight the areas where educational interventions are most needed.

Table 6: Overall Knowledge Score Categories for Hemorrhoids (N=400)

Score Category	Score Range	Frequency (n)	Percentage (%)
Very Good	16-20	98	24.5
Good	12-15	118	29.5
Fair	8-11	108	27.0
Poor	<8	76	19.0

DISCUSSION

The present study aimed to assess the awareness and knowledge of hemorrhoids among the general public in District Bilaspur, Himachal Pradesh. The results provide a detailed understanding of the current levels of knowledge and highlight significant gaps that need to be addressed through targeted educational interventions.

The socio-demographic data collected from the 400 participants reveal a diverse and balanced sample. The age distribution showed a wide range of participants, with 31.5% aged 18-30 years, 23.8% aged 31-40 years, 21.0% aged 41-50 years, and 23.8% over 50 years. This range ensures that the findings are representative of different age groups within the population. The nearly equal gender distribution (49.5% male and 50.5% female) provides a comprehensive understanding of hemorrhoid awareness across both genders. The majority of participants were married (58.0%), and the predominant religion was Hinduism (82.3%), reflecting the local demographic composition. Employment and educational status varied, with significant portions being employed (48.8%) and having at least a high school education (62.3%).

The knowledge of hemorrhoid symptoms among the participants was relatively high. As shown in Table 2, 78.5% had heard of hemorrhoids, and 71.8% knew that hemorrhoids can cause pain. Awareness of specific symptoms was also substantial, with 69.8% identifying itching, 66.0% recognizing bleeding during bowel movements, and 64.5% aware of swelling as a symptom. These findings indicate that basic awareness of hemorrhoid symptoms is relatively good among the general public. However, the data also suggest that there is room for improvement, particularly in recognizing all symptoms consistently.

Table 3 highlights the participants' understanding of the causes and risk factors of hemorrhoids. While 62.0% knew that chronic constipation can cause hemorrhoids, awareness of other risk factors was moderate. Only 59.8% were aware that straining during bowel movements can cause hemorrhoids, 57.8% knew about the impact of a low-fiber diet, 56.3% recognized the role of prolonged sitting, and 53.8% were aware of the genetic predisposition. These findings underscore the need for increased education on the various risk factors associated with hemorrhoids, as a comprehensive understanding of these factors is crucial for effective prevention and management.

The knowledge of hemorrhoid prevention, as shown in Table 4, was moderate. Awareness that dietary changes can help prevent hemorrhoids was 52.0%, and 50.3% knew that increasing fiber intake can help in prevention. Additionally, 48.5% were aware that drinking plenty of fluids can prevent hemorrhoids, 45.5% recognized the importance of regular exercise, and 44.0% knew that avoiding prolonged sitting can help prevent the condition. These findings indicate a need for improved public education on lifestyle modifications that can prevent hemorrhoids.

Table 5 details the knowledge about the treatment and management of hemorrhoids. Awareness of over-the-

counter treatments was 46.8%, and 43.8% knew that medical procedures can treat severe hemorrhoids. Additionally, 41.3% were aware that sitting in a warm bath can help relieve symptoms, 39.5% knew about topical treatments for symptom relief, and 36.8% were aware that surgical intervention might be necessary for severe cases. These findings suggest that while there is some awareness of treatment options, comprehensive knowledge about all available treatments is insufficient.

The overall knowledge scores, categorized in Table 6, reveal significant variability in the participants' understanding of hemorrhoids. While 24.5% demonstrated very good knowledge (scores between 16-20) and 29.5% had good knowledge (scores between 12-15), a considerable portion (27.0%) had fair knowledge (scores between 8-11), and 19.0% had poor knowledge (scores below 8). These results highlight the disparities in knowledge levels within the community and indicate that a substantial number of individuals lack essential information about hemorrhoids.

When comparing our findings with previous studies conducted in other regions, it is evident that awareness and knowledge levels vary significantly. For instance, a study conducted in urban settings showed higher awareness levels, likely due to better access to healthcare information and resources. In contrast, rural populations, such as those in Bilaspur, demonstrate lower awareness, as seen in our study. This disparity underscores the influence of socio-demographic factors and access to education on health literacy. Previous studies have also highlighted that awareness campaigns in urban areas tend to be more effective due to higher literacy rates and better infrastructure for disseminating information. Our study reaffirms the need for tailored educational programs that consider the unique challenges faced by rural populations.[8-11]

The findings of this study underscore the critical need for targeted educational interventions to improve public awareness and knowledge of hemorrhoids in Bilaspur. Public health campaigns should focus on increasing awareness about the symptoms, causes, risk factors, preventive measures, and treatment options for hemorrhoids. Leveraging digital platforms, community meetings, and local health workers could enhance the reach and effectiveness of these campaigns. Educational programs should emphasize the importance of early diagnosis and treatment, the role of lifestyle changes in managing hemorrhoids, and the potential complications of untreated hemorrhoids.

CONCLUSION

This study provides valuable insights into the awareness and knowledge of hemorrhoids among the general public in Bilaspur, Himachal Pradesh. The findings reveal significant gaps in understanding the symptoms, causes, risk factors, prevention, and treatment of hemorrhoids. Despite a relatively high level of basic awareness, there is a critical need for comprehensive education on the condition's various aspects. The variability in knowledge levels underscores the importance of targeted educational interventions to improve public health literacy. By addressing these gaps through well-designed public health campaigns and educational programs, it is possible to promote early diagnosis, effective management, and prevention of hemorrhoids, ultimately enhancing health outcomes and quality of life for the affected individuals in the community. This study lays the groundwork for future interventions and highlights the necessity of continuous public health education in rural and semi-urban areas to ensure better health awareness and management of common conditions like hemorrhoids.

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