

Patient Perception and Knowledge of Hemorrhoids and Surgical Treatment: A Hospital-Based Cross-Sectional Study

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Abstract

Background: Hemorrhoids, enlarged blood vessels in the anal region, often develop due to straining during bowel movements. They can be classified as internal or external and typically present as painless rectal bleeding, swelling, or a noticeable lump. While hemorrhoids are common worldwide, there's a lack of research on public understanding of this condition in Odisha. **Aims and Objectives:** This cross-sectional study aimed to evaluate patient Perception and knowledge toward hemorrhoids, anticipating prevalent misconceptions. **Methods:** Participants completed self-administered questionnaires to collect demographic data and assess hemorrhoid perceptions. Data analysis was performed using IBM SPSS Statistics 29. **Results:** This study found that 94.2% of participants reported awareness of hemorrhoids. The most commonly cited causes were straining during defecation (23%). Surgery was perceived as the primary treatment by 39.5% of participants, and 87.9% acknowledged a negative impact of hemorrhoids on their quality of life. Multivariate analysis revealed significant predictors of greater hemorrhoid knowledge, including age (OR=1.942 for the 28-43 age group), geographic location (OR=1.079 for Urban residency), educational attainment (OR=2.582 for degree holders), income level (OR=2.146 for 5000-10000 SAR income), and prior hemorrhoid knowledge (OR=7.102). **Conclusions:** This study highlights the need for comprehensive patient education and personalized care for individuals with hemorrhoids in Odisha. Digital platforms can effectively promote health awareness. The findings can inform targeted interventions and public awareness campaigns to improve quality of life. Future research and collaboration are essential to advance these initiatives.

Keywords: Hemorrhoids, Public Perception, Health Promotion, Surgical Procedures, Operative.

Introduction

Hemorrhoids, a common condition affecting the anorectal region, remain a significant global health concern [1]. These vascular structures, often referred to as piles, can become inflamed or swollen, leading to discomfort, pain, and bleeding [2,3]. Hemorrhoids are typically classified as internal or external, often presenting as painless rectal bleeding, swelling, or a palpable mass [3,4]. These symptoms can negatively impact an individual's quality of life, and public awareness and understanding of hemorrhoids and their treatment options may vary across different populations [5,6]. While hemorrhoids are common, there is a significant lack of research on public knowledge, awareness, and attitudes towards hemorrhoids and their surgical treatment, especially in specific geographic regions [7]. Furthermore, there is a dearth of studies on this topic from Odisha in India. Hence, this cross-sectional study aims to investigate

public perception of hemorrhoids and surgical interventions in the coastal region of Odisha.

Methods

This hospital-based cross-sectional study was conducted at the Department of Surgery, Shri Jagannath Medical College and Hospital, Puri, Odisha, India, among patients with hemorrhoids.

Patients aged 18 years or older residing in Puri district, coastal Odisha, India, was included in the study. Participants under the age of 18 were excluded.

Data collection was conducted over a one-year period, from January 2023 to December 2024, using a predesigned questionnaire adapted from previous research. The questionnaire comprised two sections. The first section gathered demographic information, including age, gender, nationality, education level, and income. The second section explored participants' perceptions of hemorrhoids,

focusing on their knowledge, attitudes, and anticipated behaviors as potential hemorrhoid patients.

Data were collected and organized in Microsoft Excel. Subsequently, the data were transferred to IBM SPSS Statistics version 23 for analysis. Descriptive statistics, including frequencies and percentages, were used to summarize categorical variables. Continuous variables were summarized using means and standard deviations. Logistic regression analysis was employed to identify predictors of awareness of hemorrhoids and their surgical management. Statistical significance was determined at a p-value of less than 0.05.

Results

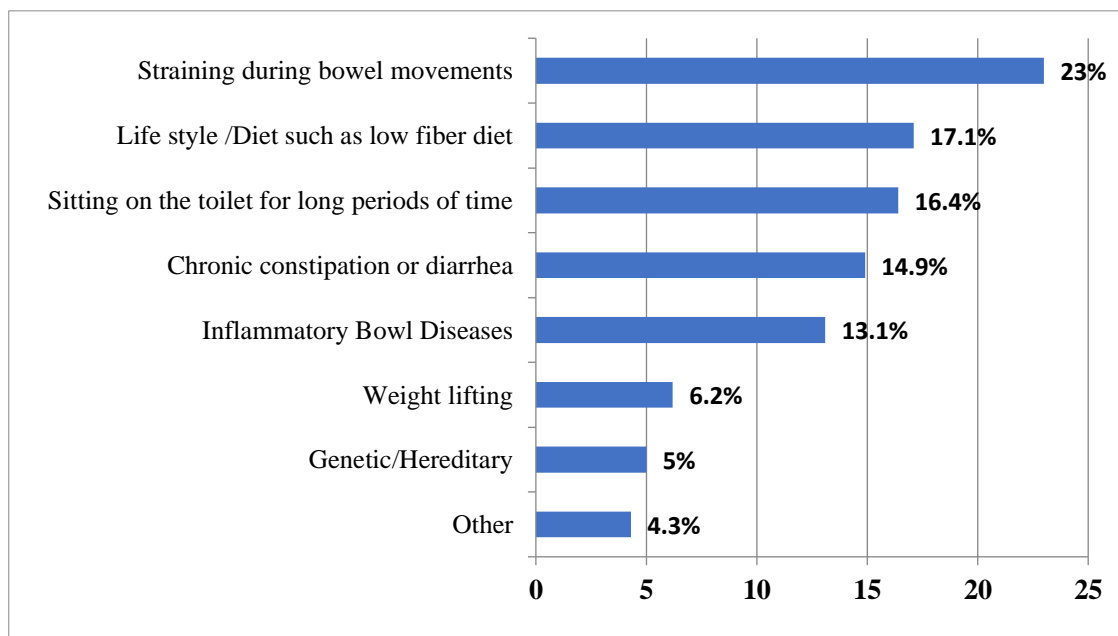


Figure 1: Knowledge of participants about hemorrhoids causes.

Anal bleeding was the most frequently identified symptom (31.4%), followed by persistent perianal pain (24.7%). Participants also

recognized persistent perianal itching (16.2%) and perianal skin fissures (15.4%) as significant symptoms of hemorrhoids (Figure 2).

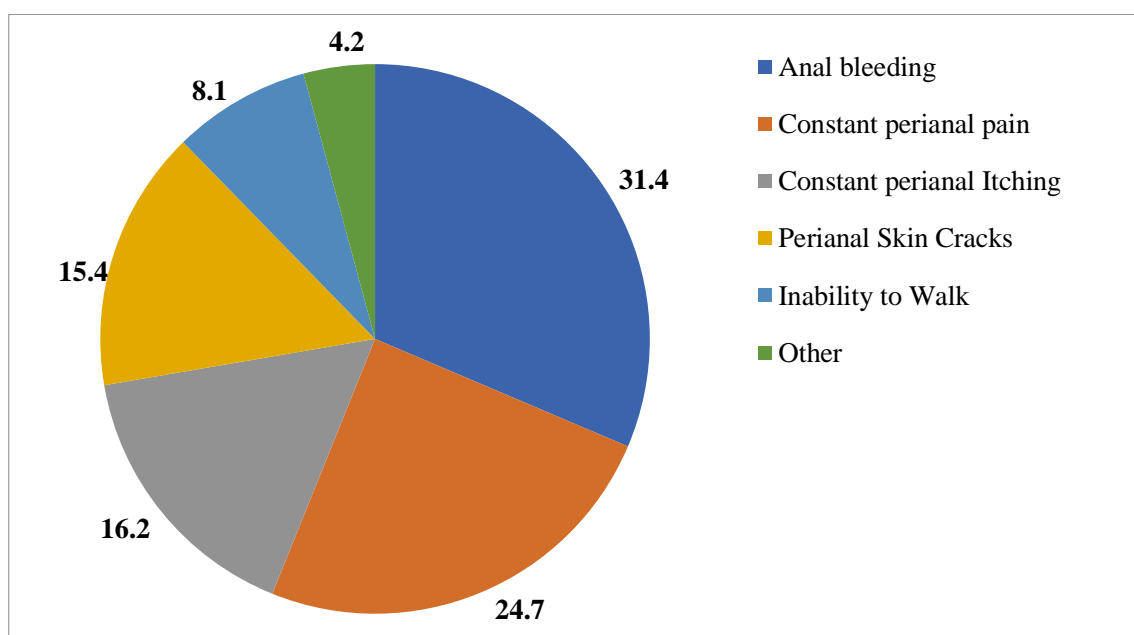


Figure 2: Knowledge of participants about hemorrhoids symptoms.

A significant majority (94.2%) of participants reported awareness of hemorrhoids, with the most affected age group being 31-45 years old (36.3%). Regarding gender susceptibility, a higher proportion

(41.4%) believed men were more susceptible, while 20.9% indicated women. In terms of treatment efficacy, 56.2% of participants considered medication effective, while 31.8% were uncertain.

Participants perceived surgery as the primary treatment option (39.5%), followed by medications (57.8%) and lifestyle modifications (49.1%). A smaller proportion used warm baths (21.8%). The most recognized complication was perianal blood clots, pain, or ulcers (73.2%), followed by anemia (24.6%). A very small percentage (1.3%) associated hemorrhoids with the risk of death.

The vast majority of participants (87.9%) recognized the detrimental effect of hemorrhoids on quality of life. While 69.0% were aware of diverse medical and surgical treatment options, only 41.8% expressed confidence in their ability to effectively manage hemorrhoids. Moreover, 84.3% acknowledged the adverse psychological and social consequences of hemorrhoids, and 66.1% reported a family history of the condition.

Additionally, a substantial number of participants (59.0%) expressed a willingness to consider marriage with someone affected by hemorrhoids, suggesting a relatively tolerant attitude toward the condition in the context of marital considerations. Regarding life expectancy, 66.4% of participants believed that individuals with hemorrhoids have a comparable life expectancy to healthy individuals, indicating a general understanding that hemorrhoids may not significantly impact overall health outcomes. However, 12.3% perceived individuals with hemorrhoids as a burden on their families, highlighting the potential challenges associated with managing the condition.

A significant proportion of participants (67.5%) believed that hemorrhoids can negatively impact job performance, while a majority (77.9%) indicated a preference for non-invasive treatments or reluctance towards surgery. Additionally, 80.7% attributed the avoidance of medical consultations to concerns about embarrassment or social stigma, highlighting potential barriers to seeking appropriate care. Furthermore, 51.3% of participants believed that hemorrhoids can be managed at home through lifestyle modifications and over-the-counter treatments, and 36.0% believed that hemorrhoids can be treated without medical intervention. Relatives and friends were the primary source of information for 39.1% of participants, followed by the internet (34.8%) and personal experience (21.1%). A smaller proportion of participants relied on information from healthcare professionals, educational institutions, or traditional media.

Multivariate analysis revealed significant predictors of greater hemorrhoid knowledge, including age (OR=1.942 for the 28-43 age group), geographic location (OR=1.079 for Urban residency), educational attainment (OR=2.582 for degree holders), income level (OR=2.146 for 5000-10000 SAR income), and prior hemorrhoid knowledge (OR=7.102).

Discussions

Hemorrhoids, characterized by swollen veins in the anal canal, constitute a significant global health burden [5]. The underlying pathophysiology remains incompletely understood, although chronic straining is considered a contributing factor [8]. In this study we aimed to evaluate patient Perception and knowledge toward hemorrhoids, anticipating prevalent misconceptions. Our cross-sectional study provides valuable insights into the current understanding and perceptions of hemorrhoids in this region. This discussion will delve into the key findings and their implications, comparing them with existing medical literature. The demographic characteristics of the study participants are noteworthy. The majority of respondents were of Indian nationality, with a relatively equal gender distribution. This is consistent with the expected demographics of the region, providing a representative sample for

the study. However, the mean age of 33.6 years indicates a diverse age group, allowing for insights into the perception of hemorrhoids across different generations.

A substantial proportion (94.2%) of participants in our study demonstrated awareness of hemorrhoids, indicating widespread knowledge within the Coastal region of Odisha. This finding is consistent with the previous study results [9,10]. However, our study revealed discrepancies in the understanding of causative factors and symptoms. While factors such as straining and prolonged sitting were recognized, the role of lifestyle factors and inflammatory bowel disease was less well understood, suggesting potential knowledge gaps among participants. This finding is consistent with previous research by Oberi *et al.*, [11] who identified a lack of regular physical activity (83%), prolonged sitting (51%), and consumption of saturated fats (50%) as common risk factors for hemorrhoids.

Similarly, participants' awareness of common hemorrhoid symptoms, such as anal bleeding, persistent perianal pain, and itching, aligns with prior medical literature. The identification of perianal skin cracks as a notable symptom is a significant finding, as it suggests an understanding of potential complications associated with hemorrhoids, which can significantly impact quality of life [1,12,13]. The majority of participants acknowledged the negative impact of hemorrhoids on quality of life, consistent with previous research indicating a correlation between symptom severity and health-related quality of life (HRQoL) [14]. This recognition underscores the importance of comprehensive hemorrhoid management to improve patient well-being.

The recognition of available drug and surgical options for hemorrhoid treatment is a positive finding. However, the relatively low level of confidence (43.2%) in effectively managing hemorrhoids suggests a need for improved patient education and support. Additionally, the recognition of the negative impact of hemorrhoids on mental and social health, coupled with the acknowledgement of family members affected by the condition, highlights the broader societal implications of hemorrhoids.

A significant proportion of participants (51.7%) believed that marrying someone with hemorrhoids is acceptable, suggesting a relatively tolerant societal attitude towards the condition. This positive shift in perception may contribute to reducing the stigma associated with hemorrhoids.

A significant proportion of participants (60.4%) perceived that individuals with hemorrhoids have a similar life expectancy to those without, aligning with the general medical consensus. This suggests a common understanding that hemorrhoids typically do not significantly impact overall lifespan. However, a smaller proportion (11.7%) recognized the potential burden that hemorrhoids can place on individuals and their families, highlighting the need for comprehensive support systems for patients and their caregivers.

The preference for non-invasive treatments or a hesitation towards surgical interventions, as indicated by 75.5% of participants, aligns with broader healthcare trends. This suggests a need for increased patient education regarding the safety and efficacy of surgical interventions for hemorrhoids. Relatives and friends, along with the internet, were identified as the primary sources of information about hemorrhoids. This aligns with the findings of Neazy *et al.*, [15] who reported that relatives were the most common source of information for 47% of participants. These findings highlight the importance of utilizing these channels for targeted health education and awareness campaigns. Additionally, the reliance on personal experience, formal education, healthcare professionals, and traditional media suggests a variety of potential avenues for disseminating accurate information about hemorrhoids.

The cross-sectional nature of this study restricts its ability to determine cause-and-effect relationships. Additionally, relying solely on participant-reported information may introduce inaccuracies due to memory lapses. Moreover, focusing on a specific region may limit the applicability of the findings to broader populations. To overcome these limitations, future studies should employ longitudinal designs to investigate causal connections and incorporate objective measurements to complement self-reported data. Expanding the study to a larger population would increase the generalizability of the results. Public health efforts to educate the public about hemorrhoid prevention and treatment are essential.

Conclusion

This research emphasizes the importance of providing comprehensive patient education and personalized care to individuals with hemorrhoids in Odisha. Digital platforms and social media can be effective tools for promoting health awareness. The study findings can be used to develop targeted interventions and public awareness campaigns to enhance the quality of life for those affected by hemorrhoids. Future research and collaborative efforts are crucial to further these initiatives.

Declarations

Ethical Approval and Consent to participate

Not applicable as retrospective nature of study

Consent for publication

Not applicable as retrospective nature of study.

Availability of supporting data

Upon request to the corresponding author

Competing interests

Nil

Funding Statement

Nil

Authors 'contributions

R.R.S., D.K.S., & J.M. design the concept; J.M., involved in the recruitment of cases; B.M., examined the histopathological slides, J.M., D.K.S., and B.M., were involved in the data acquisition; R.R.S., J.G., D.K.S., were involved in the data analysis; R.R.S., J.M., D.K.S., and B.M. were involved in the manuscript preparation. All the authors have reviewed the manuscript.

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