

## Awareness and Attitudes Toward Hemorrhoids Among Bisha Population, Saudi Arabia

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### ABSTRACT

This study aimed to assess the awareness, knowledge, and attitudes toward hemorrhoids among the adult population in Bisha, Saudi Arabia. A cross-sectional design was employed, utilizing a validated questionnaire distributed to 240 participants. The results revealed a generally high level of awareness (mean score: 7.016/10), with 87.1% correctly defining hemorrhoids and 97.9% recognizing key preventive measures. However, significant gaps were identified, particularly in understanding causes specific to women (19.6% accuracy) and complications (60% accuracy). Attitudes toward seeking medical care were mixed, with 29.6% finding doctor visits embarrassing and 68.8% acknowledging cultural barriers as a deterrent. The findings underscore the need for targeted educational interventions to address misconceptions, reduce stigma, and promote early medical consultation, tailored to the sociocultural context of Bisha.

**Keywords:** Hemorrhoids, awareness, knowledge, attitudes, Bisha, Saudi Arabia, cultural barriers, healthcare-seeking behavior.

## 1. INTRODUCTION

### 1.1 Background:

Hemorrhoids are vascular structures located in the anal canal that, under pathological conditions, become enlarged, symptomatic, and engorged due to venous dilation and degeneration of the surrounding connective tissue. The pathophysiological process involves a weakening of the supportive fibromuscular matrix and increased pressure within the hemorrhoidal plexus, often exacerbated by spasms of the internal anal sphincter. These changes culminate in a set of characteristic clinical manifestations, including painless bright-red rectal bleeding during defecation, prolapse of congested mucosal tissue resembling grapes, perianal itching, discomfort, and, in more advanced cases, soiling and fecal incontinence. Diagnosis is primarily established through digital rectal examination and proctoscopy, which allow direct visualization and grading of the hemorrhoidal disease. In certain cases, colonoscopy may be warranted to rule out other colorectal pathologies presenting with similar symptoms, particularly in older individuals or those with alarm features such as weight loss or anemia [1,2].

The global prevalence of hemorrhoids is considerable, with estimates suggesting that up to 50–85% of individuals will experience symptoms related to hemorrhoidal disease at some point in their lifetime [3]. Epidemiological surveys have highlighted significant regional variability in prevalence rates, with studies reporting a prevalence of 38.9% among adults in Australia [4], 18% in Egypt [6], and 14.4% in South Korea [5]. In contrast, colonoscopy-based data from the United States reveal a relatively lower prevalence of 4.4%, potentially due to underreporting or asymptomatic presentations [7]. A study from Ethiopia focusing on outpatient clinic attendees revealed a prevalence rate of 13.1% [6], underscoring disparities influenced by healthcare access, cultural perceptions, and diagnostic methodologies. Numerous risk factors have been consistently implicated in the pathogenesis of hemorrhoidal disease. These include chronic straining during bowel movements, prolonged sitting on the toilet, and habitual constipation, which increase intra-abdominal and anorectal pressures [8]. A low-fiber diet is strongly associated with harder stool consistency and increased straining, while elevated body mass index (BMI), pregnancy, and physical inactivity further exacerbate venous stasis and mechanical pressure within the pelvic region [5,9]. Socioeconomic status, occupational demands, and toileting behavior also modulate risk, with sedentary lifestyles being particularly contributory. Hemorrhoids are commonly classified using the Goligher classification system, which categorizes internal hemorrhoids into four grades based on their degree of prolapse and reducibility. This system remains a cornerstone in clinical assessment and therapeutic decision-making [1,10].

In the United States alone, hemorrhoids account for over 3.3 million outpatient visits annually, reflecting their significant burden on healthcare resources and quality of life [8]. Treatment options range from conservative management with dietary modification and topical agents to office-based procedures such as rubber band ligation and, in advanced or recurrent cases, surgical interventions. Importantly, recurrence rates are notably high with conservative treatment—exceeding 50%—while surgical approaches such as hemorrhoidectomy or stapled hemorrhoidopexy are associated with significantly lower recurrence, often below 10% [11].

In Saudi Arabia, public awareness and understanding of hemorrhoidal disease remain limited, as highlighted in a recent national cross-sectional survey which found that only 28.9% of participants demonstrated a high level of knowledge concerning hemorrhoid etiology, symptoms, and progression. This deficit in awareness was significantly associated with sociodemographic variables including age, gender, geographic region, and occupational sector [12]. Regional disparities are evident: for instance, approximately 60% of surveyed adults in the Aseer Region exhibited adequate knowledge [13], while only 36% of respondents in the Makkah region met the same threshold [12]. Moreover, younger individuals, those with higher education levels, and healthcare professionals consistently demonstrated superior knowledge and awareness compared to older or less-educated counterparts [13,14]. Despite the growing body of literature, much of the research in Saudi Arabia has focused on urban areas such as Majmaah [14], Abha, Aseer [13], and Makkah [12], while rural regions—including Bisha—remain underrepresented. This geographical gap limits the generalizability of findings and hampers the development of culturally sensitive, context-specific public health interventions. As such, the present study seeks to address this deficiency by investigating knowledge, awareness, and attitudes toward hemorrhoidal disease among the adult population in Bisha. The ultimate aim is to inform evidence-based, locally tailored health education strategies to facilitate early recognition, reduce stigma, and promote timely medical consultation for hemorrhoidal symptoms [13–15].

## 1.2. Problem Statement

Hemorrhoids are a widespread health condition with global and regional prevalence, directly impacting individuals' quality of life due to their painful complications. However, information about the awareness and attitudes of the population in Bisha, Saudi Arabia, toward this condition remains limited and insufficient. Most previous studies in the Kingdom have focused on major cities, while regions with distinct demographic and cultural characteristics, such as Bisha, have been overlooked. This undermines the ability to design awareness programs tailored to their unique needs. A central issue here is the lack of accurate local data that contributes to understanding factors influencing prevention and treatment behaviors, such as dietary habits, daily practices, or prevailing health culture. This gap exacerbates challenges related to delayed diagnosis and rising healthcare costs, especially as complications from neglected or recurrent cases intensify. Therefore, this study aims to assess the health reality of Bisha's population by evaluating their knowledge of hemorrhoids, identifying misconceptions, and analyzing their attitudes toward managing the condition. The goal is to develop proactive solutions that enhance awareness and reduce the societal burden of this health issue.

## 1.3 Research Question :

What are the current levels of awareness, prevailing misconceptions, and cultural or demographic factors influencing attitudes toward hemorrhoids among the population of Bisha, Saudi Arabia, and how do these dynamics shape healthcare-seeking behaviors and the effectiveness of potential interventions aimed at reducing the burden of this condition?

## 1.4 . Justification :

Studying awareness and attitudes toward hemorrhoids in Bisha holds exceptional importance due to the unique nature of the local community in terms of cultural, social, and demographic factors, which may differ radically from the urban contexts covered by previous research. The absence of accurate information about the region hinders the design of effective health programs, especially as the prevalence of the condition and management behaviors are influenced by factors such as dietary patterns, limited access to medical services, or societal perceptions surrounding sensitive diseases. National initiatives—often based on studies from major cities—face challenges in achieving their goals in rural areas, where traditional practices are widespread or healthcare infrastructure lacks resources. Neglecting hemorrhoid treatment increases the risk of costly health complications, negatively impacting individuals' lives and escalating financial burdens on the healthcare system. Thus, this study seeks to uncover gaps in knowledge, correct misconceptions, and understand cultural barriers. This paves the way for preventive and therapeutic measures tailored to Bisha's specific needs, enhances early detection of cases, improves the distribution of health services, and ultimately reduces the societal and economic impacts of this manageable health issue.

## 2. OBJECTIVES :

### 2.1 General Objective :

This study seeks to understand the awareness levels of Bisha's population in Saudi Arabia regarding hemorrhoids and their attitudes toward the condition, with a focus on the socio-cultural and demographic factors influencing this knowledge. It aims to identify common misconceptions about the disease and uncover challenges that hinder its prevention, early diagnosis, or effective management. The findings will contribute to developing proposals for culturally sensitive awareness programs,

improving the distribution of healthcare services, and mitigating the negative impacts of hemorrhoids on both individual and community health.

## 2.2 Specific objectives:

This study comprehensively examines Bisha residents' knowledge of hemorrhoids—including causes (e.g., constipation, low-fiber diets), clinical symptoms (e.g., bleeding, prolapse, swelling), and advanced complications (e.g., thrombosis, anemia)—while assessing their awareness of preventive strategies (e.g., physical activity, avoiding prolonged sitting) and treatment options (from medications to surgery), alongside identifying prevalent misconceptions (e.g., linking the disease to cultural beliefs like "evil eye" or relying on traditional remedies such as herbal baths). It also analyzes psychosocial barriers to healthcare engagement, such as stigma or shame stemming from erroneous associations with "shameful" illnesses, or delays in seeking medical care due to high costs or scarce specialized clinics in remote areas. Furthermore, the study investigates the complex interplay of demographic (e.g., age, gender, education) and social factors (e.g., sedentary occupations, dietary habits) influencing disease prevalence, such as higher rates among the elderly due to weakened tissues, office workers due to physical inactivity, or gender-based disparities in awareness driven by cultural sensitivities. By synthesizing these insights, the study proposes tailored interventions: visually simplified awareness campaigns to overcome health illiteracy, mobile clinics targeting marginalized villages, training healthcare providers in cultural competency, and engaging local leaders (e.g., elders, teachers) to dismantle stigma. These efforts aim to enhance early diagnosis, reduce reliance on ineffective practices, and alleviate the long-term health and economic burdens of complications through an approach that harmonizes scientific rigor with the unique sociocultural context of Bisha.

## 3. LITERATURE REVIEW :

### 3.1 Definition and Causes of Hemorrhoids:

Hemorrhoids are pathological dilatations or prolapses of the vascular-anal cushions, a normal anatomical component of the anal canal responsible for maintaining fine continence through their vascular and connective tissue structures [16,17]. These cushions become symptomatic due to chronic mechanical stress, inflammation, or vascular dysfunction, leading to disrupted mucosal integrity, venous engorgement, and degradation of the supporting collagen and elastin fibers [18,19]. Internal hemorrhoids, arising above the dentate line (viscerally innervated), are graded I (non-prolapsing) to IV (irreducible prolapse with thrombosis), while external hemorrhoids, situated below the dentate line (somatosensory innervated), present as acutely painful perianal swellings due to thrombotic events or skin irritation [19]. The pathogenesis involves a multifactorial interplay of elevated intra-abdominal pressure (from chronic straining, obesity, or pregnancy) [20,21], age-related connective tissue degeneration [22], and localized inflammatory cascades that disrupt microvascular integrity and promote stromal edema [23]. Emerging research implicates gut dysbiosis in modulating mucosal immunity and vascular permeability, potentially exacerbating hemorrhoidal inflammation [24]. Risk factors such as sedentary behavior, low-fiber diets, and prolonged sitting exacerbate venous stasis and pelvic floor dysfunction, while portal hypertension-associated rectal varices—distinct from hemorrhoids—manifest as submucosal venous dilatations secondary to portosystemic shunting [25]. Clinically, hemorrhoids manifest with painless bright red bleeding, mucous discharge, pruritus, or acute thrombosis, though chronic blood loss may lead to iron-deficiency anemia [26]. Their pathophysiology underscores a dynamic imbalance between physiological cushion function and pathological mechanical stress, necessitating differentiation from other anorectal pathologies to guide targeted therapy [27].

Etiology of Hemorrhoids arises from a complex interplay of mechanical, inflammatory, and genetic factors. Chronic intra-abdominal pressure during defecation (due to constipation or recurrent diarrhea) is the primary driver of venous dilatation, as it obstructs venous return and displaces the anal cushions from their anatomical position, leading to loss of muscular and connective tissue support [28–29]. Obesity contributes through two mechanisms: mechanical (increased pelvic pressure from visceral fat distribution) and inflammatory (via cytokine release, e.g., IL-6 and TNF- $\alpha$ , from adipose tissue, which compromise vascular integrity and promote edema) [30]. Pregnancy involves hormonal changes (elevated progesterone reducing venous wall tone) and physical compression from the enlarged uterus on pelvic veins, exacerbated by pregnancy-related constipation [32]. Aging accelerates collagen and elastin degradation in connective tissue, reducing cushion elasticity and increasing prolapse susceptibility. Gut microbiome dysbiosis modulates local immunity through pro-inflammatory metabolites (e.g., LPS), enhancing vascular permeability and swelling [33]. Sedentary behaviors (prolonged sitting) exacerbate venous stasis, increasing anal canal pressure by up to 70% according to anorectal manometry studies [34]. Conversely, rectal varices from portal hypertension (in cirrhosis) represent a distinct entity but may mimic hemorrhoidal symptoms due to submucosal venous engorgement [35]. Mendelian randomization studies suggest genetic predispositions in connective tissue degradation or dysregulated inflammatory responses [36]. Secondary factors include low-fiber diets (reducing stool bulk and increasing straining) and occupational habits (prolonged standing/sitting) [37].

### 3.2. Symptoms and Complications of Hemorrhoids:

Symptoms of Hemorrhoids vary clinically depending on the nature of the lesion (internal/external) and disease progression. Painless rectal bleeding (82–90% of cases) is the most characteristic symptom, occurring due to rupture of fragile blood

vessels in the swollen anal cushions' submucosa during passage of hard stool, Bright red blood typically coats the stool surface or stains toilet paper, without mucus intermixing [38]. In prolapsed internal hemorrhoids (Grade III-IV), patients notice a moist mass protruding from the anus during defecation, which may reduce spontaneously or require manual repositioning. Persistent mucous discharge leads to perianal dermatitis and pruritus ani due to bacterial overgrowth and mucus breakdown on the skin [39]. Thrombosed external hemorrhoids present as a painful bluish nodule on clinical examination, with surrounding tissue edema caused by venous outflow obstruction and thrombosis, resulting in pulsatile pain peaking within 48 hours and impaired sitting [17]. Chronic cases may develop iron-deficiency anemia (5–10% of cases), particularly in women of reproductive age or patients who avoid reporting bleeding due to social stigma [39]. Rarely prolapsed internal hemorrhoids progress to tissue strangulation due to anal sphincter spasm, causing ischemia, necrosis, foul odor from bacterial decomposition, and systemic sepsis risk if untreated [28]. Large hemorrhoids contribute to passive fecal incontinence from incomplete anal closure or secondary constipation due to pain-related defecation avoidance [39]. Atypical symptoms include nocturnal anal pain (suggestive of concurrent abscess) or recurrent heavy bleeding (requiring exclusion of colorectal cancer) [28]. Studies show 60% of patients experience psychosocial impacts like anxiety or social withdrawal, with a 34% reduction in work productivity in severe cases [39].

Complications of Hemorrhoids encompass a spectrum of pathological conditions ranging from acute to chronic sequelae. Venous thrombosis in external hemorrhoids is among the most common complications, characterized by blood clot formation within the engorged vein, leading to sudden severe pain, bluish swelling, and impaired sitting or mobility, with a risk of ulceration or secondary bleeding if untreated [38]. In advanced cases of prolapsed internal hemorrhoids (Grade IV), tissue strangulation may occur due to incarceration of the prolapsed mass by the anal sphincter, compromising blood supply and resulting in necrosis with foul-smelling discharge and pus formation, potentially progressing to systemic sepsis if infection disseminates [19]. Chronic iron-deficiency anemia is a critical complication, particularly in patients with recurrent unmanaged bleeding, with studies showing hemoglobin level reductions of up to 20% in severe cases [27,39]. Large hemorrhoids may contribute to fecal incontinence due to incomplete anal closure or exacerbate functional constipation from pain-related defecation avoidance [37]. Rare but life-threatening complications include perianal cellulitis or abscess formation, especially in immunocompromised or diabetic patients [19]. Data indicate that 30% of patients experience psychosocial disturbances such as anxiety or depression due to chronic pain or social embarrassment, with significant declines in daily quality of life [24]. In rare instances, severe bleeding or swelling may mimic anorectal malignancies, necessitating differential diagnostics to exclude cancer.

### 3.3 Preventive Measures of Hemorrhoids:

Rely on an integrated approach combining dietary modifications, improved defecation habits, and management of mechanical factors contributing to elevated intra-abdominal pressure. Studies indicate that increased dietary fiber intake (25–35 grams daily) is associated with a 40% reduction in constipation incidence, minimizing straining during defecation and enhancing anal vascular integrity, with soluble fiber sources like oats and apples preferred for their role in softening stool [20,33,37]. Adequate hydration (1.5–2 liters daily) is recommended, while avoiding diuretics like coffee, as cross-sectional analyses show dehydration increases stool viscosity by 30%, promoting microvascular tears [37,34]. Aerobic exercises (e.g., brisk walking or swimming) improve pelvic circulation and reduce bowel transit time, whereas high-pressure exercises (e.g., weightlifting) are cautioned against, as they raise intra-abdominal pressure to 200 mmHg, increasing anal cushion prolapse risk [31,34,35]. Avoiding prolonged sitting (over 1 hour continuously) via ergonomic chairs or donut-shaped cushions is advised, as uninterrupted desk work correlates with a 70% rise in anal pressure per anorectal manometry [17,36]. During pregnancy, preventive measures include pelvic elevation pillows to reduce venous pressure, Kegel exercises to strengthen the pelvic floor, and avoiding tight clothing that impedes blood flow [22,32]. Recent research highlights the role of probiotic supplements (e.g., *Lactobacillus*) in balancing gut microbiota, reducing inflammatory toxins (e.g., LPS) that increase vascular permeability [24,33]. Bowel training on a regular schedule (post-meal) using the squatting technique improves rectal angulation, reducing straining by 50% compared to seated defecation [38,19]. For those with a family history, monitoring body mass index (BMI <25) and waist circumference (<94 cm for men, 80 cm for women) is recommended to mitigate systemic inflammation linked to visceral obesity [21,31]. Finally, avoiding chronic use of constipation-inducing medications (e.g., opioids or tricyclic antidepressants) in favor of alternatives with fewer intestinal motility effects is critical, alongside side-effect monitoring [38–39].

## 4. MATERIAL AND METHODS

### 4.1 Study Design

This study adopted a **descriptive, cross-sectional design**, which is commonly used in public health research to assess the prevalence and distribution of certain behaviors, perceptions, or characteristics in a target population at a single point in time. The focus of this research was on residents of Bisha city, located in the Asir region of the Kingdom of Saudi Arabia. The cross-sectional design was chosen due to its efficiency in data collection, suitability for estimating population parameters, and practicality in resource-limited settings. This design does not infer causality but provides valuable insights into the status of public knowledge and behaviors at a specific moment.

## 4.2 Study Area

The study was conducted in **Bisha city**, which serves as the administrative capital of **Bisha Governorate** in the **Asir Region** of Saudi Arabia. Geographically, Bisha is located in the southwestern part of the Kingdom and is known for its socio-cultural diversity and economic activity. The city includes both urban and suburban communities, which makes it suitable for sampling a wide demographic. The population structure in Bisha includes government employees, private sector workers, students, and retirees, making it representative of various societal sectors.

## 4.3 Study Population

The target population for this study comprised adult individuals aged 18 years and above, who were either permanent or temporary residents of Bisha city. Both male and female participants were considered eligible for inclusion in the sampling framework to ensure a balanced representation of the general population across gender lines. The inclusion criteria were carefully defined to encompass all residents of Bisha city, regardless of the duration of their residence, as long as they met the minimum age requirement of 18 years and demonstrated the capacity to provide informed consent, only those individuals who willingly agreed to participate in the study by completing the questionnaire were considered part of the final sample, thereby ensuring the ethical validity of the data collection process.

On the other hand, several exclusion criteria were established to preserve the methodological integrity and ethical rigor of the study. Individuals under the age of 18 were excluded to comply with legal and ethical research standards concerning minors. Additionally, any person who explicitly refused to participate or who chose not to complete the questionnaire, whether partially or entirely, was excluded from the dataset. Furthermore, individuals who exhibited difficulties in communication—whether due to cognitive impairments, language barriers, or physical conditions preventing them from comprehending or answering the survey accurately—were also excluded. This approach was taken to guarantee that all included responses were provided by individuals with the cognitive and legal capacity to engage meaningfully and ethically with the research instrument, thus enhancing the reliability and validity of the findings.

## 4.4 Sample Size and Sampling Technique

The sample size was calculated using the **Cochran formula** for estimating sample size in proportion studies:

$$N = \frac{\{Z^2 \cdot P \cdot Q\}}{\{d^2\}}$$

Where:

- $Z=1.96$  (corresponding to a 95% confidence level)
- $P=0.59$  (proportion of the characteristic under study, derived from a previous study [Reference 12])
- $Q=1-P=0.41$
- $d=0.05$  (margin of error allowed)

Substituting into the formula:

$$N = \frac{\{(1.96)^2 \cdot (0.59)(0.41)\}}{\{(0.05)^2\}} = 371$$

To mitigate potential **non-response bias** and account for **missing or incomplete data**, an additional 10% was added to the calculated sample size:

Adjusted=371+(10% of 371)=408 participants

$$N_{\{adjusted\}} = 371 + (10\% \{of\} 371) = 408 \{participants\}$$

**Sampling technique:** A **simple random sampling** method was used, with the aid of online tools to ensure that every eligible resident of Bisha had an equal and independent chance of being selected. This approach enhances the generalizability and representativeness of the findings.

## 4.5 Data Collection

**Method:** Data were collected using a **structured and pre-validated online questionnaire** designed specifically for the target population. The online format was chosen for its accessibility, efficiency, and capacity to reach a wide segment of the population in a short time.

**Tool:** The questionnaire (Annex 2) was adapted from previously published and validated research instruments, and modified as necessary to align with the study's objectives and the local cultural context. The tool covered sociodemographic data and questions related to the study variables. Prior to distribution, the instrument was reviewed by subject-matter experts to ensure content validity and clarity.



**Distribution:** Participants were recruited through digital platforms, including social media and official community groups in Bisha. Individuals who consented to participate were directed to the questionnaire via a link.

#### 4.6 Data Analysis

Collected data were initially compiled and organized using **Microsoft Excel** for preprocessing, The cleaned data were then imported into **IBM SPSS Statistics software (version 26)** for analysis.

#### Statistical methods:

- Descriptive statistics were employed to summarize the data using frequencies, percentages, means, and standard deviations as appropriate.
- Frequency tables and charts were generated to illustrate the distribution of responses across different variables.
- Cross-tabulations may be used to explore relationships between key categorical variables, if necessary.

The analytical approach was aligned with the study's descriptive objectives, providing a clear and informative overview of the public's responses.

#### 4.7 Ethical Consideration

Prior to the initiation of data collection, **ethical clearance** was obtained from the **Ethical Review Committee at the University of Bisha, College of Medicine (UBCOM)**, The study adhered to the ethical principles outlined in the **Declaration of Helsinki** regarding human research. All participants were informed about the purpose of the study, their voluntary participation, data confidentiality, and the right to withdraw at any time without penalty. An electronic **informed consent form** was included at the beginning of the questionnaire, and only those who agreed were permitted to proceed with the survey.

## 5. RESULT

**Table (1) : Demographic Characteristics and Hemorrhoid Experience among Participants (N=240)**

|                              | Frequency | Percent |
|------------------------------|-----------|---------|
| <b>1. Gender:</b>            |           |         |
| Male                         | 180       | 75      |
| Female                       | 60        | 25      |
| <b>2. Age in years</b>       |           |         |
| 18 - 24                      | 86        | 35.8    |
| 25 - 34                      | 40        | 16.7    |
| 35 - 44                      | 46        | 19.2    |
| 45 - 54                      | 45        | 18.8    |
| More than 55                 | 23        | 9.6     |
| <b>3, Educational level:</b> |           |         |
| Primary school               | 3         | 1.3     |
| Secondary school             | 39        | 16.3    |
| University                   | 194       | 80.8    |
| Uneducated                   | 1         | 0.4     |
| Middle school                | 3         | 1.3     |
| <b>5. Work field :</b>       |           |         |
| I don't work                 | 67        | 27.9    |
| Medical field                | 49        | 20.4    |

|                                                                   |     |      |
|-------------------------------------------------------------------|-----|------|
| Non- Medical field                                                | 124 | 51.7 |
| <b>6. Have you ever had Hemorrhoids or any of your relatives:</b> |     |      |
| I don't work                                                      | 31  | 12.9 |
| No, no one was injured and I was not injured                      | 47  | 19.6 |
| Yes, my relative                                                  | 94  | 39.2 |
| Yes, I had                                                        | 68  | 28.3 |
| total                                                             | 240 | 100  |

A total of 240 participants were included in the study, The majority were male (75%, n=180), while females accounted for 25% (n=60).

Regarding age distribution, the highest proportion of participants were aged 18–24 years (35.8%, n=86), followed by those aged 35–44 years (19.2%, n=46), 45–54 years (18.8%, n=45), 25–34 years (16.7%, n=40), and those above 55 years (9.6%, n=23). In terms of educational attainment, most participants had completed university education (80.8%, n=194), while others had completed secondary school (16.3%, n=39), primary school (1.3%, n=3), or middle school (1.3%, n=3). A small proportion of participants were uneducated (0.4%, n=1). With respect to employment field, 51.7% (n=124) were employed in non-medical fields, 20.4% (n=49) were employed in the medical field, and 27.9% (n=67) reported being unemployed. Regarding personal or familial history of hemorrhoids, 39.2% (n=94) reported that a relative had hemorrhoids, 28.3% (n=68) reported having had personal experience with hemorrhoids, and 19.6% (n=47) indicated that neither they nor their relatives had experienced hemorrhoids. An additional 12.9% (n=31) provided responses that require clarification regarding their work status and health history.

**Table (2) The awareness and knowledge of adults regarding hemorrhoids.**

| Questions                                            |           | Frequency | Percent |
|------------------------------------------------------|-----------|-----------|---------|
| 7. What is the definition of hemorrhoids             | incorrect | 31        | 12.9    |
|                                                      | correct   | 209       | 87.1    |
| 8, Choose only one symptom                           | incorrect | 64        | 26.7    |
|                                                      | correct   | 176       | 73.3    |
| 9, Choose only one symptom                           | incorrect | 14        | 5.8     |
|                                                      | correct   | 226       | 94.2    |
| 10, Choose only one symptom                          | incorrect | 68        | 28.3    |
|                                                      | correct   | 172       | 71.7    |
| 11, Choose from the following a cause of hemorrhoids | incorrect | 60        | 25      |
|                                                      | correct   | 180       | 75      |
| 12, Choose only one cause                            | incorrect | 126       | 52.5    |
|                                                      | correct   | 114       | 47.5    |
| 13, Choose only one cause                            | incorrect | 26        | 10.8    |
|                                                      | correct   | 214       | 89.2    |
| 14, Choose only one cause                            | incorrect | 38        | 15.8    |
|                                                      | correct   | 202       | 84.2    |
| 15, one of the causes of hemorrhoids in women        | incorrect | 193       | 80.4    |

|                      |                  |     |      |
|----------------------|------------------|-----|------|
|                      | <b>correct</b>   | 47  | 19.6 |
|                      | <b>incorrect</b> | 96  | 40   |
| 16,Complications     | <b>correct</b>   | 144 | 60   |
|                      | <b>incorrect</b> | 5   | 2.1  |
| 17. Prevention is by | <b>correct</b>   | 235 | 97.9 |
|                      | <b>incorrect</b> | 29  | 12.1 |
| 18. Prevention is b  | <b>correct</b>   | 211 | 87.9 |
|                      | <b>incorrect</b> | 34  | 14.2 |
| 19. Prevention is b  | <b>correct</b>   | 206 | 85.8 |

The findings indicate a generally high level of awareness and knowledge among the participants regarding hemorrhoids. Specifically, 209 participants (87.1%) correctly identified the definition of hemorrhoids, while 31 participants (12.9%) answered incorrectly. In terms of recognizing symptoms, 176 participants (73.3%) correctly selected an appropriate symptom in question 8, and 226 participants (94.2%) answered correctly in question 9, indicating strong symptom recognition overall. However, knowledge was slightly lower in question 10, where only 172 participants (71.7%) answered correctly, and 68 participants (28.3%) answered incorrectly. Regarding the causes of hemorrhoids, 180 participants (75%) correctly identified a cause in question 11. Nonetheless, knowledge varied in related cause-based questions: while only 114 participants (47.5%) answered question 12 correctly, a higher accuracy was observed in question 13 (214 participants, 89.2%) and question 14 (202 participants, 84.2%). Notably, awareness was particularly low regarding causes specific to women, as only 47 participants (19.6%) identified the correct cause in question 15, while 193 participants (80.4%) answered incorrectly. For knowledge related to complications of hemorrhoids, 144 participants (60%) responded correctly, compared to 96 participants (40%) who answered incorrectly. Regarding prevention, participants demonstrated excellent awareness, with 235 participants (97.9%) answering correctly in question 17, 211 participants (87.9%) in question 18, and 206 participants (85.8%) in question 19. Overall, these results reveal that while general knowledge about hemorrhoids, their symptoms, and preventive measures is relatively high among the participants, there are notable gaps, particularly in understanding specific causes, especially those related to women's health.

**Table (3) :The attitude of adults toward hemorrhoids.**

| Questions                                                                                                                                                         |       | Frequency | Percent |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------|---------|
| 20. Is Visit doctor is embarrassing                                                                                                                               | No    | 93        | 38.8    |
|                                                                                                                                                                   | Maybe | 76        | 31.7    |
|                                                                                                                                                                   | yes   | 71        | 29.6    |
| 22. Do you think that customs and traditions constitute a barrier for society in delaying or not going to the doctor?                                             | No    | 16        | 6.7     |
|                                                                                                                                                                   | Maybe | 59        | 24.6    |
|                                                                                                                                                                   | yes   | 165       | 68.8    |
| If your answer to the previous question was "yes," why do you think that customs and traditions constitute a barrier in society to delay or not go to the doctor? | No    | 58        | 24.2    |
|                                                                                                                                                                   | Maybe | 90        | 37.5    |
|                                                                                                                                                                   | yes   | 92        | 38.3    |

In response to the question about whether visiting the doctor is considered embarrassing, 93 participants (38.8%) answered "No," 76 participants (31.7%) chose "Maybe," and 71 participants (29.6%) answered "Yes."

This indicates that although a significant portion does not feel embarrassed, nearly one-third still feel unsure, and about one-third find it embarrassing. Regarding the influence of customs and traditions on delaying or avoiding medical visits, the majority, 165 participants (68.8%), believed that customs and traditions do constitute a barrier. Meanwhile, 59 participants (24.6%) responded "Maybe," and only 16 participants (6.7%) answered "No." This highlights that cultural and societal factors significantly affect health-seeking behavior among participants. For those who answered "Yes" to the previous question,



when asked why customs and traditions create such barriers, 92 participants (38.3%) affirmed the reason, 90 participants (37.5%) responded "Maybe," and 58 participants (24.2%) denied it, This distribution suggests that even among those acknowledging the impact of traditions, the reasons vary, reflecting different levels of conviction or understanding about societal influences.

**Table (4) Descriptive Statistics for Awareness, Knowledge, and Attitude toward Hemorrhoids"**

|                            | N   | Min  | Max   | Mean  | SD    |
|----------------------------|-----|------|-------|-------|-------|
| <b>awareness&amp; know</b> | 240 | 1.00 | 10.00 | 7.016 | 1.63  |
| <b>attitude (mean)</b>     | 240 | .00  | 2.00  | 1.22  | .4197 |
| <b>attitude(total)</b>     | 240 | .00  | 6.00  | 3.67  | 1.259 |

Table (4) shows the descriptive statistics for participants' awareness, knowledge, and attitudes toward hemorrhoids, The awareness and knowledge scores among participants (N = 240) ranged from 1.00 to 10.00, with a mean score of 7.016 and a standard deviation of 1.63, indicating a relatively high level of awareness and knowledge with moderate variability, The mean attitude score ranged from 0.00 to 2.00, with an average of 1.22 (SD = 0.42), suggesting that most participants had a positive attitude toward hemorrhoid-related healthcare behaviors. Additionally, the total attitude scores ranged from 0.00 to 6.00, with a mean of 3.67 and a standard deviation of 1.26, reflecting a moderate to positive overall attitude among the study population.

**Table (5) If your answer to the previous question was "yes," why do you think that customs and traditions constitute a barrier in society to delay or not go to the doctor?**

| Frequency                                                                                                                                                            | Percent | Description |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|
| Sensitive area of the body, discussing the problem considered unacceptable in public, Cultural gender barriers, so girls wouldn't go to a male doctor and vice versa | 1       | 0.4         |
| Embarrassment for them. This is wrong. If I get this disease, I immediately go to the doctor                                                                         | 1       | 0.4         |
| Religious reasons based on the ruling of covering private parts                                                                                                      | 1       | 0.4         |
| Embarrassment                                                                                                                                                        | 1       | 0.4         |
| Embarrassment to be addressed by the doctor about what causes them pain                                                                                              | 1       | 0.4         |
| Embarrassment because it is a sensitive area                                                                                                                         | 1       | 0.4         |
| Embarrassment from the doctor                                                                                                                                        | 1       | 0.4         |
| Feeling of embarrassment and tension                                                                                                                                 | 1       | 0.4         |
| Embarrassment from revealing hemorrhoids                                                                                                                             | 1       | 0.4         |
| Societal traditions and modesty                                                                                                                                      | 1       | 0.4         |
| Embarrassment                                                                                                                                                        | 1       | 0.4         |
| Embarrassment from saying the problem                                                                                                                                | 1       | 0.4         |
| Modesty                                                                                                                                                              | 1       | 0.4         |
| Modesty and shyness                                                                                                                                                  | 1       | 0.4         |
| Shyness                                                                                                                                                              | 4       | 1.7         |
| Shyness from examination as it is a sensitive area                                                                                                                   | 1       | 0.4         |
| Fear or modesty                                                                                                                                                      | 1       | 0.4         |
| Feeling of shyness from revealing the area                                                                                                                           | 1       | 0.4         |
| Examining a sensitive area                                                                                                                                           | 1       | 0.4         |

|                                                                                                                                                                     |   |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|
| The area is sensitive                                                                                                                                               | 1 | 0.4 |
| Embarrassing especially if you need surgery and people around you start visiting and giving advice                                                                  | 1 | 0.4 |
| An embarrassing matter                                                                                                                                              | 1 | 0.4 |
| Because of embarrassment                                                                                                                                            | 1 | 0.4 |
| Because of social embarrassment and lack of self-confidence                                                                                                         | 1 | 0.4 |
| Because of embarrassment from being examined if the doctor is male                                                                                                  | 1 | 0.4 |
| Because of embarrassment and modesty from going to the doctor and revealing in this area                                                                            | 1 | 0.4 |
| Because of embarrassment from revealing private parts and modesty of the patient                                                                                    | 1 | 0.4 |
| Because of clinical examination and revealing the area to the doctor                                                                                                | 1 | 0.4 |
| Because this disease is in the private area, the patient feels embarrassed and starts with home treatments first, and if it doesn't succeed, they go to the doctor  | 1 | 0.4 |
| Because of people's modesty since it is a private area                                                                                                              | 1 | 0.4 |
| Because of what people might say or embarrassment from them knowing what happened to them                                                                           | 1 | 0.4 |
| Some people feel embarrassed to go to the doctor                                                                                                                    | 1 | 0.4 |
| Causes embarrassment                                                                                                                                                | 1 | 0.4 |
| Ignorance of society and the belief that it will go away with time                                                                                                  | 1 | 0.4 |
| Shyness                                                                                                                                                             | 1 | 0.4 |
| Maybe if there is a female doctor, I would go, but not to a male doctor                                                                                             | 1 | 0.4 |
| Maybe due to lack of a qualified doctor for diagnosis                                                                                                               | 1 | 0.4 |
| Maybe they feel embarrassed                                                                                                                                         | 1 | 0.4 |
| It will be embarrassing even if it's necessary to see the doctor                                                                                                    | 1 | 0.4 |
| Feeling embarrassed when people know the reason for the operation                                                                                                   | 1 | 0.4 |
| Feeling of shame towards the matter.                                                                                                                                | 1 | 0.4 |
| The way the doctor diagnoses the patient                                                                                                                            | 1 | 0.4 |
| Because of the person's feeling of embarrassment                                                                                                                    | 1 | 0.4 |
| The patient may be known and fears that the news of their condition will spread among their acquaintances, causing them embarrassment                               | 1 | 0.4 |
| Many patients do not go to the doctor due to embarrassment and reluctance to reveal the area or acknowledge that they have it, and this leads                       | 1 | 0.4 |
| I don't know                                                                                                                                                        | 1 | 0.4 |
| Because it's from God, there is no shame in it                                                                                                                      | 1 | 0.4 |
| Because no one wants others to see their private parts                                                                                                              | 1 | 0.4 |
| Because to confirm if the person has hemorrhoids or not requires examination in the clinic and removal of clothes in sensitive areas, and this causes embarrassment | 1 | 0.4 |
| Because it is a sensitive area and the matter would be very embarrassing                                                                                            | 1 | 0.4 |

|                                                                                                                                   |            |            |
|-----------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| Because it is a sensitive area                                                                                                    | 1          | 0.4        |
| Because they feel embarrassed                                                                                                     | 1          | 0.4        |
| There is no awareness about the matter, especially regarding these areas, and some ridiculous comments and jokes about this issue | 1          | 0.4        |
| The location of the infection, in my opinion, causes embarrassment for patients.                                                  | 1          | 0.4        |
| Due to embarrassment                                                                                                              | 1          | 0.4        |
| They see it as shameful or embarrassing for them                                                                                  | 1          | 0.4        |
| They are too shy                                                                                                                  | 1          | 0.4        |
| Modesty prevents the person from letting people know about their hemorrhoids                                                      | 1          | 0.4        |
| <b>Total</b>                                                                                                                      | <b>240</b> | <b>100</b> |

## 6. DISCUSSION

The study results revealed a relatively high level of awareness about hemorrhoids among the population of Bisha (mean score: 7.016/10), with 87.1% of participants correctly defining hemorrhoids. This is consistent with a study by Hamdi et al. (2022) in Mecca, which indicated that only 36% of participants possessed adequate knowledge, confirming regional disparities in awareness within Saudi Arabia. However, clear knowledge gaps emerged, particularly in understanding the causes associated with women (19.6% accuracy). This is supported by Yamana (2018), who confirmed that pregnancy and childbirth are major risk factors for hemorrhoids in women, but these concepts are not sufficiently established in the study population.

The results also showed poor knowledge of complications (60% accuracy). In contrast to a study by Sheikh et al. (2020), which found that 75% of patients associated hemorrhoids with risks such as anemia and skin infections. This discrepancy may be due to the lack of intensive health education about complications in rural areas such as Bisha compared to urban areas. In terms of attitudes, 68.8% of participants considered social customs a barrier to visiting a doctor, consistent with the findings of Alamri et al. (2021) in Asir, where 60% indicated that cultural factors contributed to delayed diagnosis. The current study also showed that 29.6% of participants felt embarrassed discussing hemorrhoids, a finding supported by Salgueiro et al. (2020), who highlighted that the social stigma associated with anal diseases leads to treatment avoidance.

In terms of risk factors, 75% of participants cited chronic constipation as a primary cause, consistent with Riss et al. (2012), who linked straining during defecation to an increased risk of hemorrhoids. However, only 47.5% recognized the role of prolonged sitting, in contrast to De Marco & Tiso (2021), who confirmed that sedentary behaviors increase anal vein pressure by 70%. These findings support the need for educational interventions targeting less aware groups (the elderly, those with limited education), with a focus on correcting misconceptions related to local culture. They also highlight the importance of strengthening mobile health services and training medical personnel to address cultural sensitivities, as suggested by Gallo et al. (2020). Finally, the study underscores the importance of adapting awareness campaigns to the unique demographic and social characteristics of rural areas to improve prevention practices and reduce costly complications.

## 7. CONCLUSIONS

The study highlights a paradox within the Bisha population: while general awareness and knowledge of hemorrhoids are relatively high, critical gaps persist, particularly regarding gender-specific causes and complications. The high recognition of preventive measures suggests that public health campaigns have been effective in disseminating basic information. However, the persistence of misconceptions—such as linking hemorrhoids to cultural beliefs or relying on traditional remedies—indicates a need for more nuanced educational strategies. Cultural and societal factors as significant barriers to healthcare-seeking behavior, with nearly 70% of participants attributing delays in medical consultation to customs and traditions. This stigma is compounded by the sensitive nature of the condition, which discourages open discussion and timely treatment. The study also reveals demographic disparities, with younger, educated individuals demonstrating better awareness, while older and less-educated groups remain underserved.

To mitigate these challenges, interventions must be culturally sensitive and community-engaged. Leveraging local leaders, such as elders and teachers, could help dismantle stigma, while mobile clinics and gender-specific healthcare services could improve access. Additionally, integrating hemorrhoid education into existing health programs and utilizing visual, simplified materials could enhance understanding among all demographic groups. Addressing these issues holistically will not only improve individual health outcomes but also reduce the long-term economic burden on the healthcare system. The study

underscores the importance of context-specific approaches in public health to bridge the gap between knowledge and practice.

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