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Knowledge, Attitudes, and Practices Concerning Hemorrhoidal Disease in the Population of Ouagadougou, Burkina Faso

Aboubacar Coulibaly[1,2*], Lawagoulé Joseph Emile Ky[1], Nômawendé Ines Compaoré[3], Kiswendsida Louise Hemeline Kolsnoré[1], Sawadogo Abel[1], Somda Kounpièlimè Sosthène[1,2], Arsène Roger Sombié[1,2] and Sawadogo Apollinaire[4,2]

[1]*Hepato-gastroenterology Department of the Yalgado Ouédraogo University Hospital, Ouagadougou, Burkina Faso.*

[2]*Health Sciences Training and Research Unit, Joseph KI-ZERBO University, Ouagadougou, Burkina Faso.*

[3]*Department of Medicine and Medical Specialties, El Fateh Suka Medical Center.*

[4]*Hepato-gastroenterology Department, Souro Sanou University Hospital Center, Bobo Dioulasso.*

[*]Correspondence:
Aboubacar Coulibaly, Hepato-gastroenterology Department of the Yalgado Ouédraogo University Hospital, Ouagadougou, Burkina Faso.

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ABSTRACT

Introduction: *Hemorrhoidal disease is a benign anorectal condition that encompasses the various clinical manifestations arising from the hemorrhoidal vascular plexuses. Despite its benign nature, it is a common disorder with potentially significant repercussions on patients' quality of life. The present study was conducted to assess the knowledge, attitudes, and practices (KAP) of the population of Ouagadougou regarding hemorrhoidal disease.*

Methods: *We conducted a descriptive and analytical cross-sectional study with prospective data collection over a two-month period, involving residents of Ouagadougou.*

Results: *A total of 485 participants were enrolled. The sample showed a slight female predominance, with a sex ratio of 0.96. The mean age was 35.5 ± 13.8 years. More than half of the respondents (55%) demonstrated a low level of knowledge about hemorrhoidal disease. The main source of information was the family circle (62.7%). In this study, one in five participants reported a history of hemorrhoidal disease. Among them, 40.2% had consulted a traditional healer, while 23.7% reported having received medical or surgical treatment. Younger age, higher education level, and access to professional sources of information were significantly associated with better knowledge of hemorrhoidal disease.*

Conclusion: *Further studies assessing both knowledge of hemorrhoidal disease and its influence on health-seeking behavior are warranted to guide the development of context-appropriate public health strategies.*

Keywords

Hemorrhoidal disease, Knowledge, Attitudes, Practices, Ouagadougou, KAP survey.

Introduction

Hemorrhoids are physiological vascular formations of the anus. A distinction is made between external hemorrhoids and internal hemorrhoids. Each hemorrhoidal plexus corresponds to an arteriovenous network within connective tissue and smooth muscle fibers attached to the internal anal sphincter by a thickening of these fibers [1]. Hemorrhoidal disease is a benign condition that refers to all the clinical manifestations occurring in the hemorrhoidal plexuses. It is common and its repercussions on quality of life can be major [2]. Hemorrhoidal disease is one of the main reasons for consulting a proctologist. Its prevalence varies according to studies. However, it could be underestimated. Indeed, it is a shameful disease, which is the cause of some reluctance to come for a consultation, especially in African settings. Indeed, anal diseases are considered taboo and shameful in sub-Saharan Africa [3].

In the United States, an epidemiological study by Johanson et al.

showed that the self-reported incidence of hemorrhoids was 10 million per year, or 4.4% of the population. In Saudi Arabia, the prevalence of hemorrhoidal disease was estimated at 16% in a study by Al-Masoudi et al. in 2024 among the population of Mecca. In India, it is estimated that approximately 50% of the population will develop hemorrhoidal disease during their lifetime [4].

Hemorrhoidal disease affects millions of people worldwide and represents a major medical and socio-economic problem [5]. In the United States, it mainly affects people between 45 and 65 years old [6]. It is a disease that is common among the so-called active population, that is, those of working age. It will therefore be responsible for financial costs due not only to health care but also to the work stoppages that it can cause. In a study in Somalia, Abdisahkur and Adam showed that patients who used traditional healers for the treatment of hemorrhoids had significantly higher rates of bleeding, pain, infections and edema [7]. In Burkina Faso, a study carried out among traditional health practitioners showed that they had an unsatisfactory level of knowledge about hemorrhoidal disease [8].

In Africa, we are witnessing a gradual change in lifestyle, which tends to resemble that of Western countries. This change could also be accompanied by an increase in the frequency of hemorrhoidal disease among our populations. However, few studies have focused on the perception of hemorrhoidal disease among our populations, as well as their use of both medical and traditional health care [9]. In Ouagadougou, hemorrhoidal disease represented 6.1% of the reasons for consultation in hepato-gastroenterology and digestive surgery [10]. However, the knowledge, attitudes and practices of the population regarding this condition remain poorly documented. The present study aimed to evaluate these aspects within the population of Ouagadougou.

Methodologies

This was a cross-sectional, descriptive, and analytical study with prospective data collection. It took place over a two-month period, from February 15 to April 14, 2025, in the city of Ouagadougou. The study population consisted of residents of the city of Ouagadougou. Inclusion criteria were to be at least 18 years old and to reside in Ouagadougou during the study period. Informed consent was required from all participants. Physicians and medical students were not included.

The sample size was calculated using the following Daniel Schwartz formula:
$n = t2 \times p \times (1-p)/e2$ with:
n: minimum required sample size;
t=1.96 is a factor to reach a 95% confidence threshold from the normal distribution ($Z\alpha=0.05$);
p=0.5 is the proportion of participants with an age ≥18 years;
e=5%, is the margin of error chosen to estimate a presumed proportion of 50% of respondents aged ≥18 years.

Applying the above formula, the minimum sample size was calculated to be 384 people. To account for possible non-responses during the survey, this sample size was increased by 10%, bringing the final sample size to n = 422 people.
We used convenience sampling to recruit study participants.

The survey was conducted in the form of individual interviews. The questionnaires were administered by a team of five previously trained interviewers. The data collection tool was a semi-structured questionnaire. It explored the participants' sociodemographic characteristics, their knowledge of hemorrhoidal disease, as well as their attitudes and practices towards hemorrhoidal crises. To facilitate understanding, the questionnaire was translated into the local language (Mooré) during the interviews.

A rating grid was developed to classify the responses and assess the participants' level of knowledge about hemorrhoidal disease.

- Assessment of knowledge on the signs of hemorrhoidal disease: answers were marked out of a total of 5 points
  - 0 – 1 = low
  - 2 = medium
  - 3 – 5 = good
- Assessment of knowledge about hemorrhoidal disease cause : answers were marked out of a total of 4 points
  - 0 – 1 = low
  - 2 = medium
  - 3 – 4 = good.
- Assessment of knowledge about hemorrhoidal disease complications: answers were marked out of a total of 3 points
  - 0 – 1 = low
  - 2 = medium
  - 3 = good
- Assessment of knowledge on means of preventing hemorrhoidal disease: responses were marked out of a total of 7 points
  - 0 – 2 = weak
  - 3 – 4 = average
  - 5 – 7 = good.

These scores were grouped into intervals defining the levels of overall knowledge: low, medium and high (Table 1)

Table 1: Overall level of knowledge about hemorrhoidal disease.

Global knowledge	Note
Low	0 – 6
Moderate	7 – 12
High	13 – 19

At the end of the survey, additional information on hemorrhoidal disease was provided to each participant.

Results

General characteristics of the study population

A total of 485 participants were included in the survey.
There were 246 women, with a sex ratio of 0.96. The mean age of participants was 35.5 ± 13.8 years, with extremes of 18 and 82 years. Nearly one in five participants had not attended school. Pupils and students represented one-third of the respondents. Ninety-seven participants (20.1%) reported a history of hemorrhoidal disease

(Table 2).

Table 2: General characteristics of the study population.

Variable	Effective
Gender (male/female)	236/239
Level of education (none/primary/secondary/university)	89/75/109/212
Occupation (student/trader/civil servant/other*)	156/139/71/119
Marital status (married/single/divorced/widowed)	250/216/4/15
History of hemorrhoidal disease	97

*Housewife, worker, seamstress, farmer

In total, 41.4% of respondents were aged 20 to 29 (Figure 1)

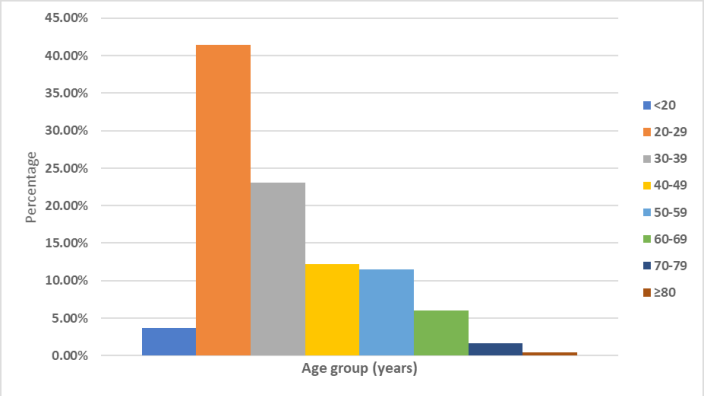

Figure 1: Distribution of the study population by age group.

Knowledge of hemorrhoidal disease

Almost all participants (99.6%) reported having heard of hemorrhoidal disease. Among them, half (50%) were aware of the distinction between internal and external forms (Figure 2). The main sources of information were family members (62.7%) and health professionals (32.1%) (Table 3).

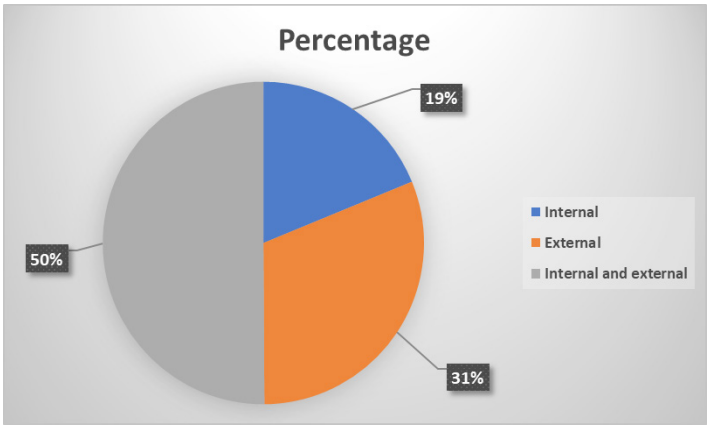

Figure 2: Distribution of the population according to their knowledge of the type of hemorrhoidal disease.

Half of the participants (49.9%) demonstrated a low level of knowledge regarding the signs of hemorrhoidal disease. A large majority (80.4%) showed poor knowledge of its causes. Two-thirds had limited knowledge of its complications, and more than half (56.7%) were unaware of preventive measures (Table 4).

Table 3: Sources of information on hemorrhoidal disease.

Source of information	Number (n=483)	Frequency (%)
Healthcare professional	155	32.1
Media	90	18.6
Family circle	303	62.7
Medical history	97	19.7
Social networks	130	26.9
Others*	14	2.9

*Traditional health practitioners, worship, school

Table 4: Level of knowledge regarding different aspects of hemorrhoidal disease.

Variable	Knowledge level (%)		
	Low	Average	Good
Knowledge of the signs of hemorrhoidal disease	49.9	28.6	21.5
Knowledge of the causes of hemorrhoidal disease	80.4	16.5	3.1
Knowledge of the complications of hemorrhoidal disease	61.5	30.4	8.1
Knowledge of the preventive measures against hemorrhoidal disease	56.7	29.8	13.5

Assessment of the overall level of knowledge about hemorrhoidal disease showed that 55% of participants had a low level of knowledge (Figure 3).

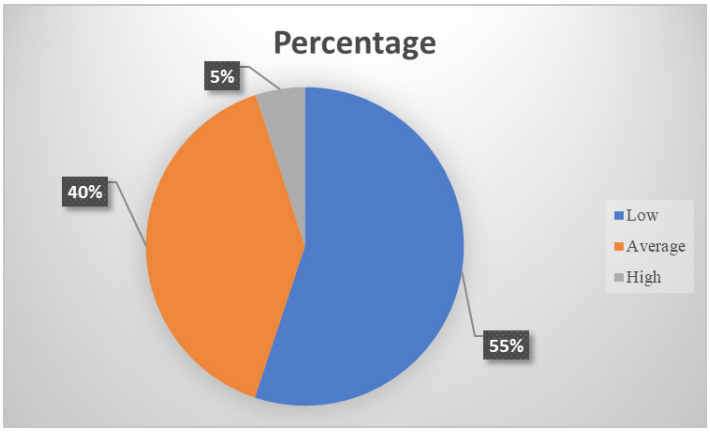

Figure 3: Overall level of knowledge about hemorrhoidal disease.

Bivariate analysis demonstrated that a higher level of knowledge regarding hemorrhoidal disease was significantly associated with the 20–29-year age group ($p = 0.022$), higher educational attainment ($p < 0.001$), and access to professional information sources, notably health care providers ($p < 0.001$).

Attitudes and practices towards hemorrhoidal disease

A total of 97 participants reported having already had hemorrhoidal disease, representing a prevalence of 20%. Three signs were particularly reported: pain in 50.6% of cases, bleeding in 28.9% of cases and prolapse in 19.3% of cases.

One third of the respondents reported having consulted a health center (Table 5). Half of the participants reported having used traditional treatment (Table 6).

Table 5: Public attitudes towards hemorrhoidal disease.

Attitude	Number (n = 97)	Percentage (%)
Traditional health practitioner	39	40.2
Consultation in a health center	31	31.9
Self-medication	15	15.5
Expectation	12	12.4

Table 6: Population practices regarding hemorrhoidal disease.

Practical	Number (n = 97)	Percentage (%)
Traditional treatment	49	50.5
Medical or surgical treatment	23	23.7
Self-medication	9	9.3
No treatment	16	16.5

Discussion

This study was part of a prospective cross-sectional survey aimed at assessing the knowledge, attitudes, and practices of the population of Ouagadougou regarding hemorrhoidal disease. A total of 485 participants were enrolled during the study period. The research was conducted in Ouagadougou, the capital city of Burkina Faso. Our findings provide insights into the population's perceptions and behaviors concerning this condition; however, they may not be generalizable to the entire Burkinabe population.

The sex ratio of 0.96 observed in our study aligns with that of the general Burkinabe population. Indeed, according to the Fifth General Population and Housing Census, the population of Burkina Faso exhibits a slight female predominance, with an estimated sex ratio of 0.93 [11]. The mean age of the participants was 35.5 ± 13.8 years, reflecting the relatively young demographic profile of the Burkinabe population [11]. Mahassadi et al. in Ivory Coast and Okafor et al. in Nigeria reported mean ages of 38.8 ± 13.6 years and 30.9 ± 9.7 years, respectively [12,13]. Pupils and students accounted for one-third of the respondents, a proportion likely attributable to the study setting. Ouagadougou, the capital of Burkina Faso, hosts numerous schools, training institutes, and universities, which may explain why nearly half of our study population had a higher level of education. Additionally, individuals with higher educational attainment are more inclined to participate in surveys. Similar findings were reported by Salih et al. and Abed et al., where more than half of the respondents possessed a higher level of education [14,15]. These sociodemographic characteristics should be considered when interpreting the results, as they may influence the knowledge and practices of the study population. In our study, more than half of the participants exhibited a low overall level of knowledge regarding hemorrhoidal disease. Similarly, Salih et al. reported a generally low level of knowledge, with only 21.4% of participants demonstrating a good overall understanding of the condition [14]. In our study, the low level of knowledge contrasts with the high awareness of hemorrhoidal disease, as 99.6% of participants reported having heard of it. The sources of information may partly explain this discrepancy. Indeed, the family circle was the primary source of information for 62.7% of respondents. However, hemorrhoidal disease remains a taboo subject, often perceived as shameful, which limits discussion and hinders access to medically validated information or consultation at health facilities. Only 32.1% of participants reported obtaining information from a health professional. This low level of involvement of health facilities in information dissemination underscores the need to strengthen awareness-raising initiatives to improve understanding and management of the disease. Social media and mass media could serve as complementary channels for health education or behavior-change communication, as 26.9% and 18.6% of respondents, respectively, cited these sources of information. Engagement of health professionals on these platforms could expand their reach and ensure the dissemination of reliable, evidence-based information to the public. The limited knowledge of the disease may also explain certain attitudes and practices. Indeed, 40.2% of respondents reported consulting traditional health practitioners for the treatment of hemorrhoidal disease, a proportion similar to that reported in other studies in sub-Saharan Africa. For example, Mahassadi et al. in Côte d'Ivoire observed recourse to traditional practitioners in 40.4% of cases [12]. They also observed that knowledge of hemorrhoidal disease did not significantly influence participants' attitudes or practices. Fewer than one-quarter of respondents had utilized medical or surgical treatments, a low proportion likely attributable to fear of these interventions, particularly surgical procedures, which are often perceived as painful or associated with complications. In this context, it is essential to strengthen communication and awareness-raising efforts regarding hemorrhoidal disease and its therapeutic options to dispel misconceptions and encourage appropriate use of healthcare services. Furthermore, our study demonstrated a significant association between a good level of knowledge of the disease and higher educational attainment, as well as access to professional information sources. These findings underscore the crucial role of education and validated medical information in improving knowledge, promoting attendance at health facilities, and enhancing acceptance of appropriate treatments.

Conclusion

Our study indicates that, although hemorrhoidal disease is widely recognized by the general public, the overall level of knowledge remains low. This information gap contributes to inappropriate attitudes and practices, which may delay consultation and compromise the quality of care. In this context, enhancing the prevention and management of hemorrhoidal disease requires the reinforcement of information and awareness strategies, ensuring that the population has access to reliable and easily understandable knowledge.

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