

Original Article

Lifestyle of Patients with Ischemic Heart Disease Followed at the Outpatient Clinic of a Referral Hospital in Luanda

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Abstract: Ischemic heart disease (IHD) is one of the leading causes of mortality worldwide and has an increasing impact in low- and middle-income countries. In Angola, scientific production addressing the clinical and behavioral profile of these patients remains limited, particularly in outpatient settings. This study aimed to exploratorily assess the lifestyle of patients with IHD followed at the outpatient clinic of a referral hospital in Luanda during the first quarter of 2025. A cross-sectional, descriptive, mixed-methods study was conducted at the Cardeal Dom Alexandre do Nascimento Cardiopulmonary Disease Hospital Complex, including 27 patients selected by convenience sampling. A sociodemographic questionnaire and the FANTASTIC Lifestyle Questionnaire were applied. Data analysis was performed using SPSS version 20.0, employing descriptive statistics. The mean age was 64.2 years, with a predominance of males (66.7%). Most participants had low educational attainment and a monthly income below 50,000 Kz. Hypertension was the most frequent comorbidity (88.9%). Lifestyle was classified as fair in 52% of cases, good in 41%, very good in 4%, and “needs improvement” in 3%. The lowest scores were observed in the physical activity and work domains, whereas the tobacco and toxic substances domain showed higher scores, reflecting a more favorable profile in this aspect. Given the small sample size and descriptive design, the results should be interpreted with caution and considered preliminary findings that highlight priority areas for future research and health interventions.

Keywords: Ischemic Heart Disease; Lifestyle; Angola.

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1. Introduction

Cardiovascular diseases (CVDs) rank among the leading causes of death worldwide, with a significant impact on developing countries. Ischemic heart disease (IHD), resulting from the narrowing or obstruction of the coronary arteries and the consequent reduction in myocardial oxygen supply, can lead to acute myocardial infarction, heart failure, and sudden death [1]. Increasing rates of urbanization and the adoption of unhealthy lifestyles have contributed to a higher prevalence of risk factors such as arterial hypertension, diabetes mellitus, smoking, and obesity, thereby increasing the burden of CVDs in several populations [2].

In Angola, the growing incidence of CVDs represents a major challenge for health services, which face limitations in infrastructure, shortages of human resources, and difficulties in accessing specialized care. Although it is widely recognized that IHD, together with other CVDs, accounts for a substantial number of deaths in the country, many patients remain without early diagnosis and appropriate treatment, worsening

clinical outcomes and increasing pressure on the health system [3]. Studies conducted in Angola indicate that coronary atherosclerotic disease (CAD) is expanding in the country, driven by lifestyle changes, accelerated urbanization, and the ongoing epidemiological transition [4,5].

Lifestyle plays a fundamental role in the management of IHD. The adoption of a healthy diet, regular physical activity, smoking cessation, and stress control are essential measures to prevent acute events and reduce disease progression [6]. Scientific evidence shows that these behavioral factors are closely associated with prognosis in patients with CVDs; however, adherence to lifestyle modifications is often limited by socioeconomic, cultural, and educational constraints [7].

Despite the clinical and social relevance of ischemic heart disease, national studies addressing the lifestyle profile of these patients remain scarce, particularly in outpatient settings. International evidence demonstrates that risk factor education, the adoption of healthy behaviors, and psychological support significantly contribute to IHD management [8,9]. Therefore, this study is justified by the lack of national data and the need to support public health strategies aimed at lifestyle modification and the prevention of complications, with the goal of improving quality of life and therapeutic outcomes for patients with IHD in Angola.

2. Methods

2.1 Study Sample

A cross-sectional, descriptive, mixed-methods study was conducted at the Cardeal Dom Alexandre do Nascimento Cardiopulmonary Disease Hospital Complex in Luanda, Angola. The sample consisted of 27 patients with a confirmed diagnosis of ischemic heart disease, established through clinical and laboratory examinations, who were consecutively seen in outpatient consultations during the first quarter of 2025. Individuals aged 18 years or older who agreed to participate and signed the informed consent form were included. No exclusions were applied other than refusal to participate.

2.2 Data Collection

Data collection was performed using two instruments: (i) a survey form developed by the author to obtain sociodemographic information, consisting of six open- and closed-ended short-answer questions; and (ii) the FANTASTIC Lifestyle Questionnaire. This questionnaire, developed in the Department of Family Medicine at McMaster University, Canada, by Wilson and Ciliska in 1984, is a generic instrument designed to assess nine lifestyle-related domains, comprising a total of 25 items. The evaluated domains are: Family and Friends, Activity, Nutrition, Tobacco and Toxics, Alcohol, Sleep, Seatbelts, Stress and Safe Sex, Type of Behavior, Insight, and Career (work/professional satisfaction).

Responses are scored using a Likert scale: 23 items have five response options (scored from 0 to 4), and 2 items are dichotomous (scored 0 or 4). The sum of the scores generates a total score, classifying individuals as "Excellent" (85–100 points), "Very Good" (70–84), "Good" (55–69), "Fair" (35–54), or "Needs Improvement" (0–34) [10]. Although the questionnaire has been validated in Portuguese for the Brazilian population, it has not undergone specific cross-cultural validation for the Angolan population and was therefore used for exploratory purposes in this study.

2.3 Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 20.0. Categorical variables were presented as absolute (n) and relative (%) frequencies, while continuous variables were described using means and standard deviations. For each domain of the FANTASTIC questionnaire, the median and the 25th and 75th percentiles were calculated to describe central tendency and dispersion.

3. Results

3.1 Demographic Characteristics of the Patients

Table 1 presents the general characteristics of the study sample. The mean age of participants was 64.2 ± 5.5 years, with a higher concentration in the 60–69-year age group (66.7%), followed by those aged 70 years or older (18.5%), and finally those aged 50–59 years (14.8%). A predominance of male participants was observed (66.7%). Regarding educational level, most participants had completed secondary education, with 37.0% having completed the first cycle and 37.0% the second cycle. Only 22.2% had higher education, and 3.7% had completed only primary education. Concerning marital status, 51.9% were single, 25.9% were married, 18.5% were widowed, and 3.7% were divorced.

With respect to occupation, 40.7% were unemployed, 25.9% were informal workers, 7.4% were employed in the private sector, and 3.7% were public servants. Retired individuals accounted for 22.2% of the sample. Regarding family income, 33.3% reported earning less than 50,000 Kz per month, while 29.6% had an income between 50,000 and 100,000 Kz, 29.6% between 100,000 and 200,000 Kz, and only 7.4% reported an income above 200,000 Kz. Concerning comorbidities, systemic arterial hypertension was the most frequent condition, present in 88.9% of patients, while 7.4% had hypertension associated with diabetes mellitus. Only one patient (3.7%) had no associated comorbidities.

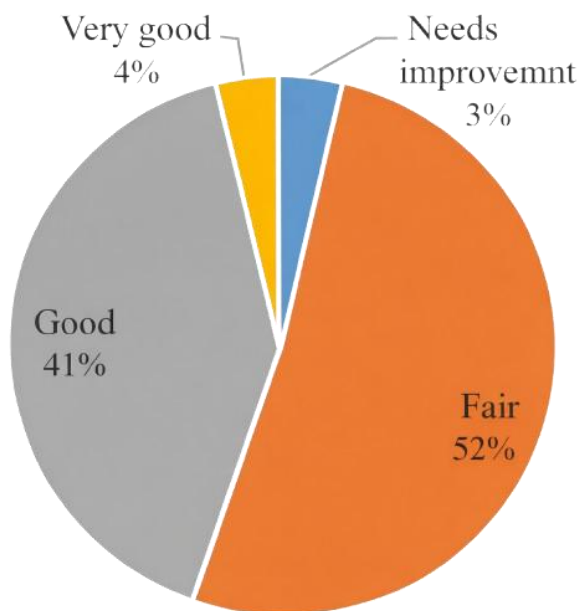
Table 1. Sociodemographic Variables and Comorbidities (n= 27).

Variable	n (%)
Mean age (SD), years	64.2 (5.5)
Age group (years)	
50–59	4 (14.8)
60–69	18 (66.7)
≥70	5 (18.5)
Sex	
Male	18 (66.7)
Female	9 (33.3)
Educational level	
Primary education	1 (3.7)
Secondary education – 1st cycle	10 (37.0)
Secondary education – 2nd cycle	10 (37.0)
Higher education	6 (22.2)
Marital status	
Single	14 (51.9)
Married	7 (25.9)
Divorced	1 (3.7)
Widowed	5 (18.5)
Occupation	
Unemployed	11 (40.7)
Informal workers	7 (25.9)
Public servants	1 (3.7)
Private sector workers	2 (7.4)
Retired	6 (22.2)
Household income	

< 50,000 Kz	9 (33.3)
50,000–100,000 Kz	8 (29.6)
100,000–200,000 Kz	8 (29.6)
> 200,000 Kz	2 (7.4)
Comorbidities	
None	1 (3.7)
Systemic arterial hypertension	24 (88.9)
Systemic arterial hypertension and diabetes mellitus	2 (7.4)

Figure 1 presents the lifestyle classification assessed using the FANTASTIC questionnaire. It was observed that 52% of participants were classified as having a “fair” lifestyle, 41% as “good,” 4% as “very good,” and 3% as “needs improvement”.

Figure 1. Lifestyle classification of the patients.



The distribution of scores by domain of the questionnaire is shown in Table 2. The Family and Friends domain presented a median of 5.0 (4.0–5.0), whereas Physical Activity showed a null value across the entire sample (0.0–0.0). For Nutrition, the median score was 3.0 (3.0–8.0). The Tobacco and Toxics domain recorded the highest median (16.0), with values ranging from 3.0 to 16.0, indicating a relatively more favorable profile in this aspect. For Alcohol, the median was 7.0 (2.0–12.0). In the Sleep, Seatbelts, Stress, and Safe Sex domain, the median score was 8.0 (8.0–12.0). The Type of Behavior domain showed a median of 6.0 (6.0–7.0), while Insight remained stable at 10.0 (10.0–10.0). Finally, the Career domain presented a median of 1.0 (1.0–1.0).

Table 2. Description of median values (percentiles) of the FANTASTIC questionnaire domains.

Domain	Median	Percentile (25–75)
Family and Friends	5.0	4.0–5.0
Physical Activity	0.0	0.0–0.0
Nutrition	3.0	3.0–8.0

Tobacco and Toxics	16.0	3.0–16.0
Alcohol	7.0	2.0–12.0
Sleep, Seatbelts, Stress, and Safe Sex	8.0	8.0–12.0
Type of Behavior	6.0	6.0–7.0
Insight	10.0	10.0–10.0
Career	1.0	1.0–1.0

4. Discussion

To the best of our knowledge, this is the first study conducted in Angola to assess quality of life and lifestyle among patients with ischemic heart disease under outpatient follow-up, contributing preliminary data in a context of limited national scientific production. The age range observed in this study is consistent with the literature, which identifies aging as one of the main non-modifiable risk factors for cardiovascular disease. Advanced age is associated with increased arterial stiffness, endothelial dysfunction, and a higher incidence of comorbidities such as hypertension and diabetes [11]. The predominance of male patients with ischemic heart disease is consistent with evidence suggesting a higher prevalence of coronary disease in men, attributed to hormonal, behavioral, and occupational factors [8]. Studies conducted in other African settings show similar age and sex profiles, with a higher concentration of cases among men over 60 years of age, reinforcing the validity of our findings [5].

The predominance of secondary-level education may indicate some degree of formal schooling, but not necessarily an adequate level of health literacy, which is crucial for understanding and adhering to therapeutic recommendations. The literature indicates that education alone does not guarantee healthy habits, highlighting the need for culturally adapted educational strategies using accessible language to promote sustainable behavioral change [12]. The high proportion of single patients (51.9%) may negatively affect social support, a key determinant of treatment adherence and stress management. Studies show that patients with limited social support have worse clinical outcomes and lower motivation to maintain healthy habits [12]. This situation is further aggravated by socioeconomic conditions, as a large proportion of patients were unemployed or engaged in informal work, which, according to the literature, may limit access to medical care, medications, and adequate nutrition.

A family income below 50,000 Kz, equivalent to less than USD 2 per day, reported by one third of the sample, reinforces the scenario of socioeconomic vulnerability, which, according to the World Health Organization, is strongly associated with poorer cardiovascular health indicators. In low-income contexts such as Angola, financial constraints may represent a significant barrier to treatment adherence and regular follow-up [11]. Regarding comorbidities, the prevalence of systemic arterial hypertension found in this study (88.9%) is extremely high and confirms the strong association between hypertension and ischemic heart disease. The coexistence of hypertension and diabetes mellitus, observed in 7.4% of patients, further aggravates cardiovascular risk, as these conditions accelerate the atherosclerotic process and worsen clinical prognosis [12]. These findings are consistent with studies demonstrating a high coexistence of these comorbidities among patients with coronary artery disease, with a significant impact on mortality and quality of life [13–15].

Lifestyle analysis revealed that no patient achieved an “excellent” classification on the FANTASTIC questionnaire, and only 3.7% were classified as “very good.” The predominance of “fair” classifications (51.9%) suggests that previous evidence indicating that patients with coronary disease often maintain unhealthy habits even after diagnosis may be accurate [11,8]. Among the evaluated domains, physical activity showed critical values, with a median of zero, indicating a complete absence of this practice in the sample. This finding is particularly concerning, given that physical inactivity is one of the risk

factors most strongly associated with cardiovascular disease progression and premature mortality [12]. However, this result should be interpreted with caution, considering the small sample size and the potential selection bias associated with recruiting patients from a single hospital.

The nutrition domain (median 3.0) indicated dietary patterns far from the recommendations for secondary prevention of coronary disease. Diets rich in saturated fats, simple sugars, and ultra-processed foods are common in low-income urban populations, reflecting economic and cultural barriers to accessing healthy foods. Variability between percentiles suggests intragroup inequalities, possibly related to purchasing power and food availability [16]. Alcohol consumption (median 7.0) showed wide variability among patients. Although moderate levels may be tolerated in some clinical contexts, higher intake increases the risk of arrhythmia, hypertension, and heart failure [11]. The tobacco and toxics domain showed a high median score (16.0), suggesting a low current prevalence of smoking. However, the possibility of social desirability bias inherent to self-reported instruments should be considered, as well as the lack of detailed information on past tobacco exposure. Psychosocial domains such as family and friends (median 5.0) and type of behavior (median 6.0) revealed intermediate values, still below optimal levels. Limited social support and the absence of structured support networks may negatively affect disease management. The literature shows that cardiac rehabilitation programs incorporating psychosocial support achieve better adherence and prognostic outcomes [17].

The main limitations of this study are related to the small sample size (27 patients), which limits the generalizability of the findings to the broader population of patients with ischemic heart disease in Angola, and the recruitment of patients from the outpatient clinic of a single referral hospital, which may introduce selection bias. The sample may not reflect the diversity of socioeconomic, cultural, and healthcare access contexts present in other regions of the country. The FANTASTIC questionnaire is based on self-report, which may generate information bias, particularly due to social desirability, leading patients to underestimate risk behaviors (such as alcohol consumption or physical inactivity) or overestimate positive behaviors.

Although the FANTASTIC questionnaire has been tested and validated in Portuguese for the Brazilian population, it has not been validated for the Angolan population and was therefore applied as an exploratory tool in this study. Nevertheless, the instrument proved to be operationally feasible and useful for an initial assessment of lifestyle, reinforcing the need for future studies focused on its cross-cultural validation. The cross-sectional and descriptive design of the study also precluded the establishment of causal relationships, allowing only the generation of hypotheses for future investigations. However, these limitations do not invalidate the study findings but should be considered when interpreting the results. Above all, they highlight the need for future multicenter, longitudinal studies with greater sample diversity, as well as mixed-methods approaches incorporating qualitative methods to explore subjective dimensions of lifestyle.

4. Conclusion

The findings of this exploratory study indicate that most patients with ischemic heart disease followed in an outpatient setting presented a lifestyle classified as only fair or good, with a marked prevalence of physical inactivity, inadequate dietary patterns, and low scores in the occupation/work-related domain. The complete absence of physical activity among participants represents a critical risk factor. The patient profile reflects a predominantly male, older population with secondary-level education and precarious labor insertion, frequently unemployed or engaged in informal work. Additionally, low household income was observed in a large proportion of the sample, which may limit access to healthcare services, medications, and adequate nutrition, thereby contributing to the persistence of unfavorable lifestyles.

The most frequent comorbidities were systemic arterial hypertension and diabetes mellitus, conditions that are highly prevalent among individuals with coronary artery disease and that further increase the risk of future cardiovascular events. Although the findings do not allow for generalization, they highlight critical areas that warrant further investigation in future studies with larger samples, multicenter designs, and culturally validated instruments. As such, this study represents an initial step toward the development of more robust research on lifestyle and ischemic heart disease in the Angolan context.

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Conflicts of Interest: The authors declare no conflict of interest.

Supplementary Materials: None.

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