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SCENARIO OF PUBLICATIONS ON THE EPIDEMIOLOGICAL AND CLINICAL PROFILE OF BREAST CANCER: SCOPING REVIEW

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ABSTRACT

Breast cancer is still the type of cancer that most affects and kills women worldwide. Due to its heterogeneity in histology, prognosis, and therapeutic options, it remains a current issue and a public health challenge. The objective of this study was to describe and synthesize the clinical and epidemiological profile of women with breast cancer. This is a scoping review, composed of open access articles, in Portuguese and English, published in the last 5 years. The profile was found with a median age of 54.5 years, predominant age group between 50 and 69 years, white skin color, incomplete elementary or high school education, housewives, with moderate economic status, within the ideal weight, married, users of public health services, without comorbidities, with a gynecological history of 1 (one) delivery or more, premenopausal women, not smokers or alcoholics. Regarding the histological profile, invasive ductal carcinoma predominated, disease stages II and III, estrogen and progesterone receptor positive, HER 2 negative, histological grade III, tumor size between 2-5 cm, negative lymph nodes and no presence of metastases. Understanding the clinical and epidemiological profile of women with breast cancer allows for assertive and coordinated public policies for care.

Keywords: Breast neoplasms. Health profile. Women's health. Public health. Neoplasms.

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1 INTRODUCTION

Cancer presents itself as a challenge for health systems and the world population, comprising a set of more than 100 diseases that share the characteristic of disordered cell growth, with potential invasion of tissues and organs. It is also considered a public health problem, due to its epidemiological, social, and economic importance1.

This disease has a multifactorial and heterogeneous nature, and factors of biological, endocrine, and reproductive origin, as well as lifestyle and behaviors, are part of its behavior2,3. Among the various types of cancer, breast cancer has been gaining prominence for some years, as it is the most common diagnosis in women and one of the main causes of death in the world4,5.

In Brazil, with the exception of non-melanoma skin cancer, it is the type that most affects women, with higher rates in the Southeast and South regions. Estimates indicate that for the 2023-2025 triennium, 73,610 new cases are expected per year, representing an alarming incidence rate of 41.89 cases per 100,000 women6, reaffirming breast cancer as a major health problem in the country.

Early diagnosis greatly increases the chances of successful treatment, significantly reducing disease-related mortality rates7. This, as well as the treatment for breast cancer, is complex and impacts not only physical and health issues, but also social, psychological, functional and economic issues3. Another important factor to be mentioned in relation to the problem of breast cancer is the reach to health services, at all levels of care, in order to ensure equity of access as well as individualized and coordinated care8.

Thus, understanding and recognizing breast cancer as a public health problem in Brazil and in the world, it is necessary to keep the knowledge regarding the epidemiological and clinical profile of diagnosed women up to date, in order to guide the look at early diagnosis and consequent success in the *continuum* of care.

In view of the above, a scientific basis was sought in the literature to better understand the epidemiological and clinical profile of women diagnosed with breast cancer. Due to the importance and nuances of the topic, the researchers chose to focus their attention on the clinical epidemiological profile at the time of diagnosis, not covering issues such as therapeutic options, survival, and mortality.

2 METHODS

This is a scoping review, with the aim of describing and synthesizing the clinical and epidemiological profile of women with breast cancer through publications in the last 5 years. The research was carried out according to the review method proposed by the *Joanna Briggs*

Institute (JBI)[9]. The scope review aims, among others, to map and summarize evidence, enabling future research, as well as identifying knowledge gaps10,11. The recommendations of the Preferred Reporting Items for Systematic and Meta-Analyses-Extension for Scoping Reviews *(PRISMA-ScR) checklist were also followed to achieve greater reliability10.*

To construct the research question, the Population, Concept and Context (PCC)[11] strategy was used, where the following acronyms were defined for the acronyms: P=women diagnosed with breast cancer, C=characterization of the national and international scientific publication on female breast cancer, while C= was configured in the temporal analysis of the last 5 years. Unifying the key topics of the PCC with the objectives of the study, the research question of this scoping review was constituted as: What is the clinical epidemiological profile of women diagnosed with breast cancer identified in scientific publications in the last five years?

This scoping review was conducted based on the proposal structured by the *Joanna Briggs Institute for Scoping Reviews9* and comprises the following steps: 1) elaboration of the guiding question; 2) identification of relevant studies; 3) refinement of studies; 4) mapping and comparison of data; 5) grouping, summarizing and reporting of results; and 6) presentation of results and conclusion.

The inclusion criteria were original, open-access articles, made available in full, published between 2018 and October 2023, in Portuguese and English, which included a clinical and/or epidemiological profile as a result or as a means for the results of the article. Gray literature and articles addressing breast cancer in the male population were excluded.

The survey of articles took place in October 2023. A search strategy was developed for each database using specific search terms. The search was carried out in the following databases: Pubmed, Science Direct, Scielo and Scopus, under the guidance of a librarian with experience in database searches.

After searching the electronic databases, all articles were exported to the *Rayyan12* platform, an open-access platform for organizing reviews. Subsequently, duplicate studies were removed. Based on this, two reviewers independently and shielded the titles and abstracts identified by the initial search, aiming at methodological rigor. Abstracts that did not contain sufficient information on the eligibility criteria were kept for reading in full. A third independent reviewer incorporated the group of reviewers to read the full-text articles. The disagreements were resolved by consensus in meetings.

Of the 21 articles selected for full reading, 1 (one) was excluded because it was an editorial article and 8 (eight) because they did not meet the objective of this research. Table 1 briefly presents the selection of articles according to the place of indexing.

Table 1: Selection of articles according to database

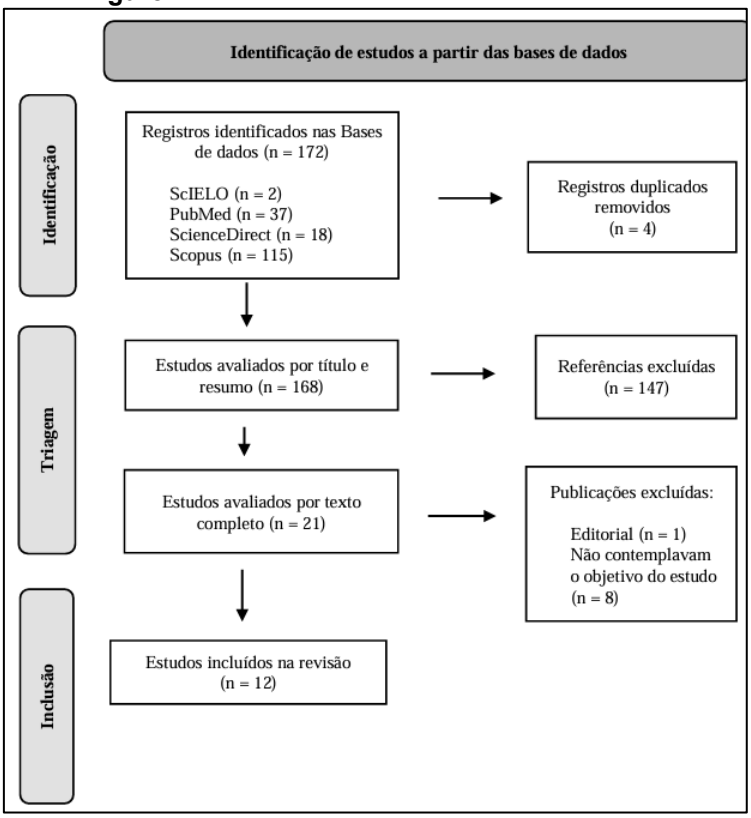
Database	Initial Results	Results after reading titles and abstracts	Results after reading in full
ScIELO	2	0	0
PubMed	37	0	0
ScienceDirect	18	1	1
Scopus	115	20	11
Total	172	21	12

Source: Prepared by the authors, 2024.

Three reviewers independently conducted the initial data extraction and then followed the remaining stages of full reading and discussion. The characteristics of the collected studies included article title, year of publication, authors, design, objective, and results. Table 2, in the results section, summarizes the studies selected to compose the present study. The findings of the articles were discussed based on the scientific literature. As for the ethical aspects, the writings of the articles and copyrights were respected, without modification of the content found for the benefit of this study proposed by the authors.

The selection results will be reported in full and presented in a flow diagram format (Figure 1) as PRISMA13.

Figure 1: Identification of studies from databases



Source: Prepared by the authors, 2024.

3 RESULTS

In order to present and better visualize the epidemiological and clinical characteristics extracted from the 12 (twelve) articles used in the present study, the data were organized as shown in Table 2:

Table 2: Characterization and main findings of the studies included in the review

Article	Design	Objective	Results
Germline BRCA mutation and outcome in young-onset breast cancer (POSH): a prospective cohort study14	Retrospective	To determine the effect of BRCA1 or BRCA2 germline mutation on breast cancer outcome in young patients (≤40 years).	Median age: 36 years. 54% had a BMI <25; 92% white; 60% Stage III; 73% HER2 negative; 67% positive RE; 57% PR positive; Negative lymph node status (62%).
Histo-epidemiological profile of breast cancers among women in the Central African Republic: about 174 cases15	Retrospective	To describe the epidemiological and histopathological characteristics of breast cancer in Bangui.	Median age: 45.5 years. 32.8% primary education; 96% one birth or more; 48% housewives; 73.6% were single; 56.9% moderate economic status; 58.6% were not in menopause; 92% did not receive hormone therapy; 64.9% ductal carcinoma; 46.7% histological grade III.
Racial/ethnic differences in the outcomes of patients with metastatic breast cancer: contributions of demographic, socioeconomic, tumor and metastatic characteristics16	Retrospective	To estimate the contributions of demographic, socioeconomic, tumor, and metastatic characteristics to racial differences in metastatic breast cancer.	Median age: 61 years; Hispanic women were, on average, 8 years younger. 65.1% non-Hispanic white; 73% without health insurance; 51% single; 67.2% invasive ductal carcinoma; 40% histological grade III/undifferentiated; 67.4% positive regional lymph nodes; 52.5% HER2 negative/hormone receptor positive; 52.1% had only 1 metastasis;
Histo-epidemiological aspects of gynecological and breast cancers at the University Teaching Hospital of Yaoundé17	Transverse	OBJECTIVE: To describe epidemiological and histopathological factors of gynecological malignancies in the city of Yaoundé.	Most patients (31.3%) were between 40 and 50 years old; 56.7% married; 60.4% housewives; 78.1% ductal carcinoma; 50.6% histological grading II.
Does Breast Cancer Increasingly Affect Younger Women? [18]	Retrospective	To analyze the incidence rate of breast cancer in a group of young women (<40 years).	The proportion of women <39 years old was approximately 5% of the total cases. The greatest upward trend in the number of diagnoses occurred in women aged 50-69 and >70 years.
Waiting Time between Breast Cancer Diagnosis and Treatment in Brazilian Women: An Analysis of Cases from 1998 to 201219	Transverse	OBJECTIVE: To analyze the factors associated with the waiting time between diagnosis and treatment of breast cancer in women in Brazil between 1998 and 2012.	46.24% between 50 and 69 years old; 47.5% with a family history of breast cancer; 53.1% married; 60% elementary school; 53.3% were white; 40.6% stage II;

Descriptive Epidemiology of breast and gynecological cancers among patients attending Saint Paul's Hospital Millennium Medical College, Ethiopia20	Retrospective	To characterize gynecological and breast cancers among clients seen at the gynecological clinic over a period of 5 years.	Breast cancer ranked 2nd in occurrence (29.3%); Most in younger patients (35-39 years), and diagnoses >50 years rarer. 97.1% carcinoma; 81.6% ductal subtype.
Distinct temporal trends in breast cancer incidence from 1997 to 2016 by molecular subtypes: a population-based study of Scottish cancer registry data21	Transverse	To report breast cancer incidence trends by estrogen receptor and estrogen/HER-2 combinations by various statistical methods.	Most in the 50-69 age group (49.41%); 76% positive RE; 51.77% PR positive; 50.49% negative lymph node status; 78.72% were HER negative.
Epidemiology of women diagnosed with breast cancer in Jordan: A 5-year survival analysis and patients' characteristics from 2 public hospitals22	Retrospective	To assess the epidemiology, prognostic factors, and 5-year overall survival of women with breast cancer diagnosed between 2011 and 2014 in Jordan.	Median age: 51 years. 31.4% in the 40-49 age group; 86.8% were married; 71.8% were non-smokers; 67.5% without comorbidities; 87% ductal carcinoma; 65.7% positive RE; 49% PR positive; 48.8% luminal molecular subtype A; 63.8% tumor <5cm; 28.8% stage II; 36% stage III; 61.6% negative lymph node status;
Determinants of Lack of Access to Treatment for Women Diagnosed with Breast Cancer in Brazil23	Transverse	To analyze the factors associated with lack of access to breast cancer treatment in women.	50.42% between 50-69 years old; 53.27% were non-white; 55.52% married; 56.59% primary schooling; 71.60% had never smoked; 77.16% had never consumed alcohol; 35.41% were in stage II; 28.04% in stage III; 86.14% attended by SUS;
Molecular subtypes as a prognostic breast cancer factor in women users of the São Paulo public health system, Brazil24	Retrospective cohort	OBJECTIVE: To analyze prognostic factors in women with breast cancer according to sociodemographic and clinical data, and molecular subtypes.	Median age: 56 years; 9% were <40 years old. 37.3% were illiterate or had not completed high school; 71.9% invasive ductal carcinoma; 68.1% stage I or II; 45.8% in stage II; 44.9% negative lymph node status; 7.2% metastasis at a distance; 74.1% positive RE; 66.1% PR positive; 85.5% HER2 negative; 68.3% KI-67 ≥14%. 41.2% Luminal B/HER2 negative.
Cancer Demographics and Time-to-Care in Belize25	Retrospective	Report demographics and describe time intervals for care milestones to enable targeting of gaps in public health.	Median age: 53 years (46-62 years); 70% did not have health insurance; 83% unemployed; 50% primary schooling; 77% invasive ductal carcinoma; 39% Stage II; 40% Stage III

BMI: Body mass index; RE: Progesterone receptor; RP: Estrogen receptor; SUS: Unified Health System.
Source: Prepared by the authors, 2024.

4 DISCUSSION

The results show that the median age was 54.5 years, a figure indicated by six of the studies analyzed15,16,18,22,24,25, one study14 was not included in the calculation of the median age, since its research was restricted to women <40 years. The same did not happen

with another study17, which, although it aimed at a population also aged <40 years, did not exclude women of other ages in its results. The most frequent age group was 50 to 69 years, presented in five studies18,19,21,23,24.

Corroborating the findings described above, Brazilian data26 indicate a similar median age, being 53.9 years, where most patients (35.7%) were in the age group of 51–65 years. Other authors3,27,28 found similar results, with 27.19%, 52.6% and 31.5% of women between 50 and 59 years of age, respectively.

The average age of breast cancer diagnosis in the United States of America is 62 years29, while in Brazil it is 54 years30. It is also stated31 that age over 50 years is the most important risk factor for the occurrence of cancer. This fact, although elucidated in studies18,19,21,23,24, does not reduce the worrying number of new diagnoses in younger women.

Breast cancer before the age of 35 is considered rare, around 5% of the total number of cases, with a rapid and progressive growth curve from this age group onwards6. In contrast, authors20 also demonstrate that most women diagnosed with breast cancer were in the age group of 35-39 years and the diagnoses in women >50 years were remote. Other studies32 have found the prevalence of breast cancer in young patients, which is twice as high as in the international literature, which shows a higher occurrence in older women, where increasing age is considered the main risk factor33.

Breast cancer in women <40 years of age, although still in a small number (5%), has shown a continuous increase in incidence rates in women up to 39 years of age18. This fact is similar to that found in a cohort study34 that analyzed the records of women diagnosed with breast cancer between 20 and 39 years of age in different locations in the United States between 1975 and 2015, pointing out that the age-adjusted incidence of breast cancer in this age group increased from 24.6 cases per 100,000 women in 1975 to 31.7 per 100,000 in 2015 (annual percentage change of 0.5). Supporting this statement, authors26 bring a percentage of 16.5% of Brazilian women aged <40 diagnosed with breast cancer, a figure that in 2019 amounted to a total of 12.1% in a previous study30, inferring that there is an increase in cases in this age group.

From the studies that provide data regarding skin color, it is observed that most of the women diagnosed were white14,16,19. The same result was found in the study26, with 58.5% of the total number of white women. Only one study22 analyzed reported a majority of women diagnosed as non-white, comprising black, brown, indigenous and quilombola women.

It is stated2 that black women are diagnosed with more advanced tumors when compared to white women, associating the findings of this study with racial disparity in access to health services and early diagnosis of breast cancer, evidencing the need for public policies that prioritize more vulnerable racial groups. Corroborating this statement, other authors27 also indicate a higher prevalence of diagnosis of advanced stage breast cancer in women of black and brown race/skin color, despite having a higher number of white women in their study (57.41%).

Also with regard to skin color, it was found29 that black women have a slightly younger mean age at diagnosis (60 years) than white women (63 years), in addition to having a higher mortality rate, and this data is related to the fact that 1 (one) in 5 (five) black women have triple-negative breast cancer. They are also more likely to develop breast cancer before the age of 40, as well as to die from the disease, again evidencing the disparities in relation to cancer, citing points that strengthen this discrepancy, such as systemic racism, socioeconomic status, unequal access to health care and housing, as well as higher rates of aggressive breast cancer subtypes in black women35.

Of the studies analyzed, only 41.6% provided data on schooling, all of which included women with incomplete primary or secondary education15,19,23-25. In a study26 conducted with Brazilian women, it was highlighted that 46.4% of the women diagnosed had completed primary education up to complete elementary school, while in another study27, 42.77% of the women had incomplete elementary education, which denotes/infers low education as an important social determinant for breast cancer. This fact is exemplified by the coverage of breast cancer screening exams from 2012-2022, which ranged from 49% among women with no education and incomplete primary education to 77.8% in those with complete higher education36.

Regarding occupation, studies15,17 showed that most women were housewives, while in another analysis25 83% were unemployed. The literature already correlates the existence of a link between breast cancer and occupation, not only in terms of exposure to carcinogens37 but also taking into account occupation as a source of income and improvement in the conditions of access to health services8.

Economic status was mentioned only once15, where 56.9% of women diagnosed with breast cancer had moderate economic status, comparing the literature, which shows the socioeconomic level associated with various types of cancer, since it participates as a marker of lifestyle and exposure to other risk factors of the disease, and can be considered a social determinant of cancer, as well as social inequalities and differences in access to goods and services, as well as low schooling1.

Of the articles that made up the present review, only one study14 provided data regarding the Body Mass Index (BMI) of the patients studied, with 54% of the sample having a BMI <25, which is considered ideal weight, which differs from most of the results found in the literature, since they associate overweight and obesity with breast cancer38. Authors32 correlate breast cancer diagnoses with different variables, including obesity, demonstrating that the proportions of BMI above the recommended level were alarming, with 26.7% of women under 40 years of age having a BMI≥30 (considered obesity), while for the group over 40 years of age it was 43.7%.

The connection between breast cancer risk and being overweight is impactful, especially during the postmenopausal period. Overweight and decreased physical activity are also associated with low survival of breast cancer39,40. For every 5 units of BMI above 25, a 10% increase in the risk of breast cancer in postmenopausal women is linked41, corroborating the data42 that relate obesity to the development of several types of cancer, including estrogen receptor-positive breast cancer in postmenopausal women, inferring the need for a closer look at overweight and obese women, especially in the postmenopausal period.

Marital status was addressed by the studies, which showed that most of the population studied was composed of married women17,19,22,23. There is little in the literature on the association between breast cancer and marital status, but some studies infer that breast cancer screening among married women is lower43. In addition to single women performing more tests for detection, they also perform them more quickly than married women, due to social stigmas, prejudice from partners and the predominance of the culture of obedience of women in relation to men, and the authors consider that women without partners present a protective factor when compared to married women44.

Despite the data presented above, in general, the existence of a support network, including a husband and other family members, positively influences the search for health services and the performance of tests45. In a meta-analysis46, marriage was considered a protective effect against gynecological and breast cancers in Europe and America, with marriage being associated with timely diagnosis and favorable prognosis, with single women having a higher risk of diagnosis in more advanced stages and lower survival outcomes.

Access to health services was also mentioned, where most of the patients who made up the studies analyzed did not have health insurance and/or were treated by the SUS15,23,25. This data is correlated with more advanced stages of the disease, i.e., women who have health insurance diagnose the disease at an earlier stage (stage I compared to III when without insurance)[26].

Regarding comorbidities, 67.5% of the women did not have any comorbidities22 (the only study that addressed the subject). This result corroborates what has been previously found47, in which only 36.3% of the participants had associated pathologies, with arterial hypertension (65.2%), diabetes mellitus (36.5%) and depression (7%) being the most common.

Only one study15 addressed issues related to the number of births and none addressed breastfeeding, demonstrating that protective factors were not investigated by 91.66% of the articles analyzed. In the aforementioned study, 96% of women with breast cancer had one or more births. The low number of nulliparous women diagnosed with breast cancer is also reported in the study26 where only 17.5% of the women did not have children, while 82.5% had one or more. Based on a mixed design of a large-scale case-control study and a population-based cohort study48, it was found that a higher number of deliveries combined with prolonged breastfeeding reduces the risk of breast cancer, especially in women with 2 or more deliveries and breastfeeding greater than 50% of the risk. The same data is reported by another author ≥13 months, [29], although with less expressive numbers, blaming breastfeeding for reducing the risk of developing breast cancer by up to 30%.

Menopause and hormone therapy were addressed in a single study15, which showed that 58.6% of women were not in menopause and of those who were, 92% did not receive hormone therapy. In another study49, hormone replacement users with menopause had a higher risk of invasive breast cancer than women who did not use the therapy, also relating to the time of exposure to the hormone. According to the same authors, in Western countries, since 1990, about 20 million breast cancers have been diagnosed, of which about 1 million would have been caused by the use of hormone therapy during menopause.

Family history of breast cancer was cited as responsible for the significant increase in the risk of developing the disease50. In this regard, only two studies provided this information, where 47.5%[18] and 62.20%[23] of the patients reported having cases of breast cancer in the family. Similar data were found in other studies26,27, with 66% and 54.38% of the participating women having a family history of breast cancer, respectively. The other studies that included this review did not analyze this data, even though it is considered an important risk factor for breast cancer before the age of 50, especially for first-degree relatives51.

Although smoking and alcoholism are known risk factors for breast cancer52, most of the articles analyzed did not address this condition. Authors22,23 describe that around 71% of the women with breast cancer in their studies are not smokers, which is consistent with the findings of another analysis28, which shows a percentage of 67.1%. It was also claimed that

77.16% of the women had never consumed alcohol23, similar to other results26, where 68.4% of the participants had never smoked and 76.2% had not consumed alcohol.

The predominant histological type in all the articles that provided this information was invasive ductal carcinoma15-17,20,23-25. This confirms the findings of other authors3,53, who state that 80 to 90% of all cases of breast neoplasms correspond to this histological subtype.

The high prevalence of invasive ductal carcinoma diagnoses has been attributed to developing countries, since the diagnosis is made late, consequently increasing the stage of the disease, the presence of metastasis, and failure to respond to treatment. In developed countries, diagnoses of carcinomas in *situ* are more common, once again demonstrating the importance of early diagnosis54.

It is interesting to correlate the statements of the author above with the articles that composed this review. Five of the six studies that brought invasive ductal carcinoma as the most prevalent were conducted in developing countries17,20,22,24,25, and two of the studies15,20 were conducted in countries considered less developed in the world (Central African Republic and Ethiopia, respectively). A single study16 was conducted in a developed country (United States of America), but it also demonstrated a prevalence of invasive ductal carcinoma diagnosis (67.2%).

Regarding the stage of the disease at the time of diagnosis, stages II and III were the most common14,19,22-25, corroborating other studies26-28.

Of the 6 (six) articles that addressed estrogen and progesterone receptors, 5 (five) were positive for both14,21,22,24,25, one study16, although presenting the information of hormone receptor positive, does not clarify which one. The status of estrogen and progesterone hormone receptors are prognostic factors for breast cancer29, and it is also pointed out that in most breast cancers (around 65%) are ER+/PR+, while <10% are defined as ER+/PR− or RE−/PR+55, which is in agreement with the results found in the studies analyzed. The presence of estrogen and progesterone receptors in tumor tissue improves the prognosis, since they are associated with a lower frequency of metastases27.

Regarding molecular classification, there was little information in the articles analyzed, and the HER2-negative molecular subtype was prevalent14,16,21,24. This finding is in agreement with that found in a large cohort study conducted in Brazil, entitled AMAZONA III26, where the most common molecular subtype was luminal A (HER2 negative), representing 48% of the women studied, followed by luminal B-HER2 positive (17%) and triple negative (15.6%). This was found in another analysis56, where there was a prevalence of patients with luminal molecular classification A (48.3%), followed by luminal B (27%),

reaching negative HER2 in only 12.6% of the sample. Luminal molecular subtype A comprises approximately 60% of breast cancers57.

Only one study14 presented data on BRCA, being mutated in 12% of the population of its study, of which 59.46% were in BRCA 1. The author also exposes that there is a high proportion of mutations in BRCA1 and 2 among women aged 18 to 40 years. A similar result was found in another study58 where 13.25% of the women diagnosed had pathogenic mutations, 53% of which were BRCA (higher prevalence in BRCA2). According to the authors59, the mutation of the BRCA gene (1 and 2) is related to bilateral carcinomas in young women, as well as to the diagnosis of familial breast cancer. According to another author60, the incidence of breast cancer can increase by up to 80% in the female population with the presence of mutant genes (BRCA1 and BRCA2) compared to the portion with non-mutant genes.

Although the high presence of Ki-67 is a reference factor for a worse prognosis56, only one study24 brought data on this marker, where Ki67 ≥14% was present in 68.3% of the samples. This marker also serves to evaluate cell proliferation in breast cancer, with prognostic and predictive value [61-63]. A 1% increase in Ki-67 values increases the risk of death by 2% and the risk of recurrence by 1%56.

Histological grading was presented according to the criteria of the Scarff-Bloom-Richardson (SBR) [scale64], where two authors15,16 classified them as grade III (46.7% and 40%, respectively), a finding similar to that found in another study65. Tumor size has also been described by some studies16,21,22, where they ranged mostly from 2-5 cm. This finding is shared in another study66 , where most patients had tumor size >2 and ≤5 cm (72%). In a single study [21] tumors between 1-2 cm prevailed, corroborating the study67.

Lymph node status, an important prognostic factor for breast cancer, was predominantly negative in 4 of the 5 studies that provided this data14,21,22,24. This was found in another study56 in which only 32.9% of the participants had lymph node involvement, which was correlated with an average increase of 4.78 times and 2.63 times the risk of death and recurrence, respectively.

The presence of distant metastasis was recorded in only 16.6% of the studies16,24, and in one study16 the main occurrences were bone, lung, hepatic and cerebral metastases, in order of percentage. This fact confirms what has already been stated in the literature, that distant metastases occur mainly in the brain, lungs, liver, and bones68. One study24 did not provide such data, only whether or not there was metastasis at diagnosis.

The side of breast involvement was a data present in two studies15,22, in one of them15 the right breast being the most affected and in the other22 there was no significant

difference between the affected side. This data differs from that found in other analyses69,70, where there was a prevalence of tumors located in the left breast.

5 CONCLUSION

In summary, the research pointed to a profile of women with a median age of 54.5 years, with a prevalence of age between 50 and 69 years, white skin color, with incomplete elementary or secondary education, housewives, with moderate economic status, within the ideal weight (BMI <25), married, users of public health services, without comorbidities, with a gynecological history of 1 (one) delivery or more, who were not in menopause and who were mostly not receiving hormone therapy, were not smokers and did not consume alcohol. Regarding the clinical profile, invasive ductal carcinoma, stage of disease II and III, estrogen and progesterone receptor positive, HER2 negative, histological grade III (SBR), tumor size between 2-5cm, negative lymph node status and no presence of metastases were observed.

Data that provide information about the population, such as incidences and prevalence of diseases, as well as a profile are essential for planning health care and public policies aimed at this public. Regarding the findings, especially age, it is necessary to emphasize that in order to have a median age of 50 years, there is an interesting number of young patients diagnosed with breast cancer. Social and racial disparity is pointed out in several studies as present and impactful in the diagnosis and prognosis of breast cancer, being a challenge for public management.

Among the modifiable risk factors, the analysis brought to light the association between weight and breast cancer. Weight control is known to be a modifiable risk factor for breast cancer, having an impact especially on young women, who are more commonly diagnosed with aggressive breast cancer, emphasizing the importance of policies that encourage weight control and healthy lifestyle habits. This is applied to postmenopausal women, who are also negatively influenced by being overweight.

The analysis identified the problem of access for tumor immunohistochemistry, as well as a heterogeneous collection of information, which negatively impacts the objective of outlining an epidemiological profile of patients with breast cancer. New studies are needed that can capture data in a more complete and broad way so that the evolution of the disease can be monitored.

One of the offenders identified is the inequity of access, which can generate data from only a portion of the population that manages to enter health services. The interoperability of systems for obtaining and optimizing health data is urgently needed so that data management strategies can be devised and implemented with a view to composing public

health programs. It is perceived that the studies bring disparate data, and it is not always possible to correlate the studies, explaining the existence of inconsistencies in the records of health services.

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