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### RESEARCH ARTICLE

#### RISK FACTORS FOR BREAST CANCER IN WOMEN OVER 25 YEARS.

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Breast cancer, risk factors, women.

#### Abstract

**Objective:** to determine the risk factors for breast cancer in women older than 25 years of the Carmen Jurisdiction 3 Urban Health Center in Ciudad del Carmen, Campeche.

**Material and method:** a descriptive, cross-sectional and observational study was carried out. For this study, women older than 25 years who attended the outpatient Clinic of the Carmen Jurisdiction 3 Urban Health Center of Ciudad del Carmen Campeche, during the period comprised January 2014 to December 2016. The data were collected by applying a survey to the women who attended the Urban Health Center Carmen, Jurisdiction 3 of Ciudad del Carmen Campeche with previous signing of a letter of informed consent. For statistical analysis, descriptive statistics were used with the statistical package spss (statistical package for the social sciences). The graphs were elaborated in the program excel.

**Results:** of the 232 surveyed, 55.2% did not perform breast self-exploration; 44.8% have used oral contraceptives; 32.8% are obese; 22.4% deny breastfeeding; 13.8% do not have a hereditary family history; 10.3% had benign breast disease.

**Conclusions:** the most frequent risk factors were the lack of breast self-examination, obesity and the use of oral contraceptives.

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#### Introduction:-

The incidence of oncological diseases has increased considerably worldwide and breast cancer is no exception.

Worldwide statistics point to more than a million new cases each year; therefore, this type of cancer represents a public health problem because it is the leading cause of death in women worldwide. <sup>1</sup> one out of every eight women is at risk for breast cancer throughout life (12.2%) and one in 28 die from this disease. <sup>2</sup>

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This is why, over the last decade, several studies have been carried out on breast cancer (cm), mainly in order to clarify the relation of different risk factors with the development of the same.

Although in México it is reported as the second malignant neoplasm with the highest incidence since 1987 after cervical cancer, according to the directorate of the ministry of health,<sup>8,10</sup> in several states of the republic report it first. Diagnosis continues to occur in late phases in two thirds and survival has not improved, with an upward trend in mortality, from 15 to 18 deaths per 100,000 women aged 25 years or older; so it is of great socio-sanitary interest.<sup>1, 3, 4, 5</sup>

Since 2004, invasive breast cancer is the most diagnosed neoplasm in women. Breast cancer in young patients almost always has a more aggressive biological behavior and is associated with a less favorable prognosis than in older women.<sup>9,10</sup> it is estimated that by 2010 there will be a mortality rate of 13 per 100,000 adult women and about 4,500 deaths annually from breast cancer in Mexico.<sup>6</sup>

Globally, developing countries account for 45% of new cases and 55% of deaths associated with breast cancer.<sup>7</sup>

For the American cancer society, women with low economic resources and other diseases, breast self-exploration monthly from menarche, especially after age 20, is the most profitable strategy. The scan should be between days 7 and 10 of the menstrual cycle during the reproductive stage, while the postmenopausal woman's examination should be performed on a fixed day chosen by the patient.<sup>13</sup>

The etiology of breast cancer is still unknown,<sup>11</sup> but if several risk factors are known that predispose and include the following:

1. The genetic, which is attributed to be responsible for approximately 5-10% of all<sup>11</sup> breast carcinomas, for which two genes related to breast cancer (brca-1 and brca-2) have been identified. For each first-degree member with a history of breast cancer, the risk increases 1.8-fold, compared to women who do not manifest the disease.<sup>1</sup> in women with a history of benign disease, the risk increases.
2. Age. In México it usually manifests itself from the 20 years of age and its frequency increases until reaching the 40 and 54 years, a decade before the European or American women.<sup>1</sup>
3. Estrogens, which play an important role in the onset of breast cancer; therefore menarche before age 11 and menopause after 54 years of age increase the risk of suffering it, in addition to null parity.<sup>1</sup> similarly, the first pregnancy after 30 years of age is considered a risk factor.<sup>1</sup>
4. Prolonged hormone replacement therapy (period greater than 5 years) increases the risk of breast cancer by 2% per year. This risk remains latent five years after discontinuation of treatment; after this period, the risk is equal to that of women who never received therapy. 12 recent research indicates that the prescription for more than 20 years is associated with a two-fold increased risk of breast cancer.<sup>1</sup>
5. The association between obesity and breast cancer has been demonstrated in postmenopausal women.<sup>14</sup> in postmenopausal women obesity is associated with a risk of up to twice as high as in premenopausal women.
6. In postmenopausal obese, adipose tissue becomes the sole organ producing estrogens, through the aromatization of androstenedione, since it alters the union of these with the sex steroid transport protein, which induces high concentrations of free estrogens
7. Fifteen among environmental factors and lifestyles, the consumption of alcoholic beverages has been identified as a risk factor, since its products include acetaldehyde, known as the primary carcinogen in animals.<sup>16</sup>
8. There is controversy between the association of smoking and breast cancer, as some authors point out that its derivatives, such as benzopyrene, aromatic amines and nitrosamines, are involved in the carcinogenesis of the breast; although others have not found any association.<sup>1</sup>

Despite multiple researches, breast cancer continues to be a public health problem despite the diverse actions ranging from health education to mast cell studies and it is therefore important to continue in the field of research to improve the quality of life of patients.

There are some sociocultural characteristics that imply low risk in the development of breast cancer, such as the practice of breastfeeding, multiparity and the early age of the first pregnancy, characteristics present in a greater proportion in rural women.

Family history considers that 3 to 10% of all breast cancers predispose the hereditary factor, especially when there is a family history of a dominant gene of complete penetrance.

In México, during the last decade, the rate of mortality from breast cancer increased from 13.06 in 1990 to 14.49 in 2000, per 100,000 women aged 25 and over. With regard to death rates for the same cause also increased, in the year 1990 there were 2,214 deaths with an increase of 3,455 deaths in 2000 (ministry of health).<sup>19</sup>

Studies show that 50% of cancers can be preventable because some carcinogenic factors are related to environmental factors or patterns of personal lifestyles such as smoking, alcohol consumption and type of diet, as well as some social and economic variables.<sup>20</sup>

Lifestyle choices such as alcohol and cigarette smoking are factors that increase the likelihood of risk in the presence of breast cancer.<sup>21</sup> one study reports that women who consumed a drink of 10 grams of alcohol a day and that once in life smoked, the risk of breast cancer increased by 4%.<sup>21</sup>

Who reports that incidence and survival are clearly related to socioeconomic factors and that indigenous women's groups have less access to health services and health education, making them the most vulnerable.<sup>22</sup>

### **Material and methods:-**

In the Carmen Jurisdiction 3 Urban Health Center in Ciudad del Carmen Campeche, a descriptive, cross-sectional and observational study was carried out. For this study, women older than 25 years were referred to the outpatient clinic of the Carmen jurisdiction 3 urban health center, of Ciudad del Carmen, Campeche, 3 in the period from January 2014 to December 2016.

The objective of the present investigation is to determine the most frequent risk factors for breast cancer in women older than 25 years of age. Out of all the patients who attended the outpatient visit only 232 met the inclusion criteria.

The data were collected by applying surveys to the women who came to the health center with previous signing of an informed consent letter where they are guaranteed that the data is confidential and presented in a global way. For statistical analysis, descriptive statistics were used with the statistical package spss (statistical package for the social sciences). The graphs were elaborated in the program excel.

### **Results:-**

A survey was carried out on 232 women who attended the outpatient clinic of the Carmen Urban Health Center in Ciudad del Carmen Campeche from January 2014 to December 2016, obtaining the following results:

1. For the family history, 13.8% of the patients reported having at least one first-order relative with a history of breast cancer, while 79.3% said they had no relatives. (graph 1).
2. In the history of benign breast disease, 10.3% were found to have undergone the disease. (graph 2).
3. Regarding the antecedent of performing breast self-examination, 55.2% answered not to perform it being this the main risk factor presented by the patients. (figure 3).
4. Of these, 53.4% said they did not perform the screening because they did not know the procedure, 25.9% did not do it for fear and 20.7% did not do it for another reason. (figure 4).
5. In the case of oral contraceptive use for more than five years, only 44.8% have used it, occupying second place as a predisposing risk factor. (figure 5).
6. Obesity occupies the third place in frequency with 32.8%, overweight we found 4.4% and with normal weight 25.9%. (graph 6).
7. The history of smoking was positive in 27.6% of the respondents and 72.4% denied it. Twenty-seven percent of respondents reported having had early menarche. 13.8% of the respondents reported having presented late motherhood as a risk factor. Of the total number of patients surveyed, 21% responded being over 55 years of age and 62% had not had their menopause, and only 10.7% of menopausal patients had used hormone replacement therapy. (figure 7)

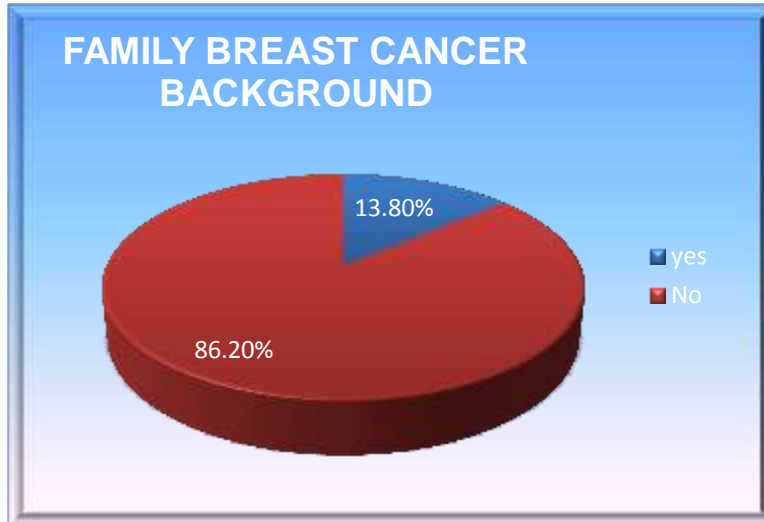
### **Conclusion:-**

The risk factors identified in this study differ from those of other reports since the most prevalent was failure to perform breast examination (55.2%), the main cause being lack of knowledge of the technique.

As for the family history antecedents the majority does not count on them. More than half of our respondents report being overweight or obese.

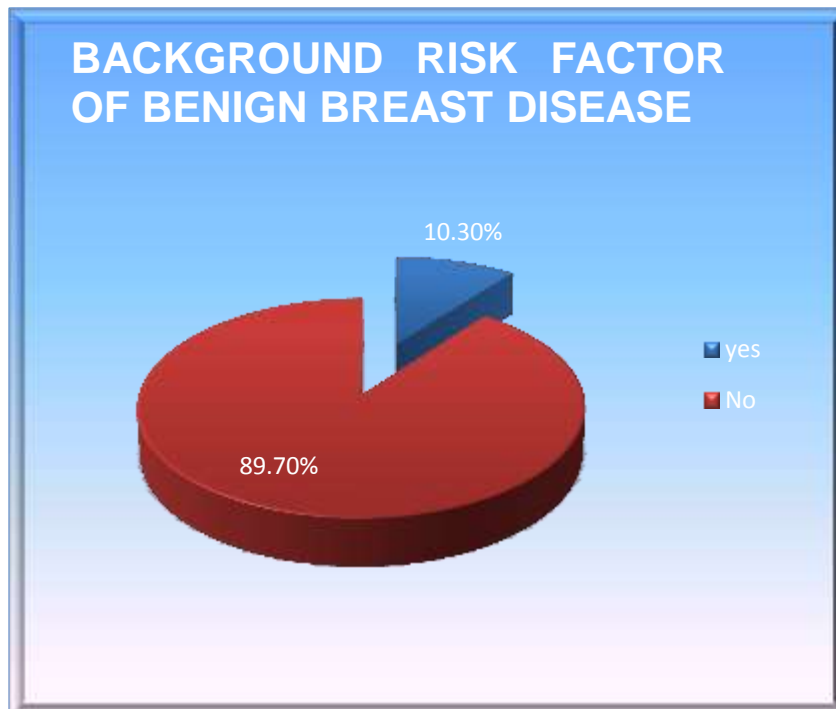
The future objective should be aimed at generating information and evidence that contribute to improving the nutritional status and health of the general population.

**Graph 1:-**



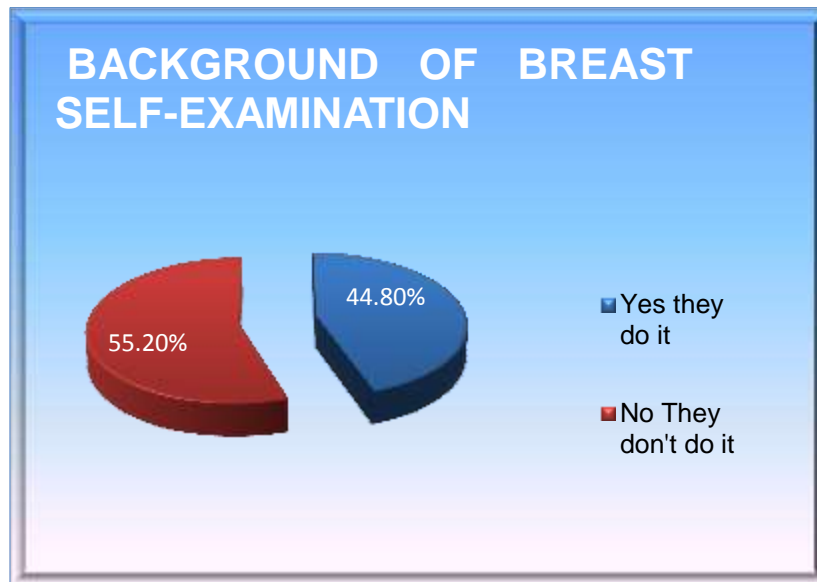
**Source:** breast cancer risk factors survey

**Graph 2:-**



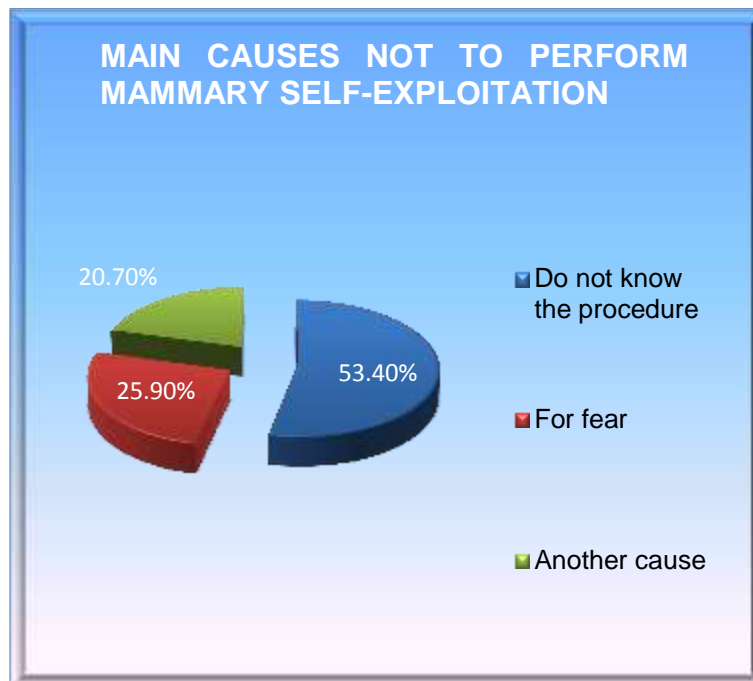
**Source:** breast cancer risk factors survey

Graph 3:-



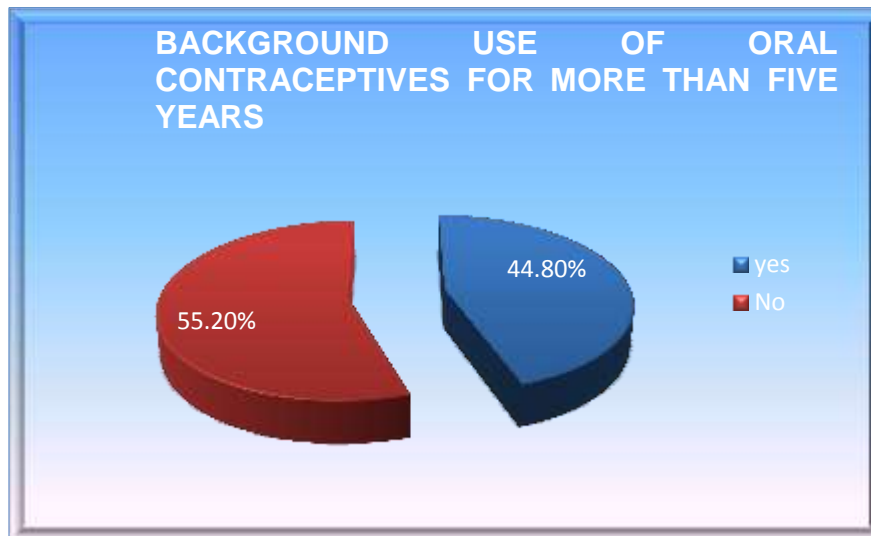
Source: breast cancer risk factors survey

Graph 4:-



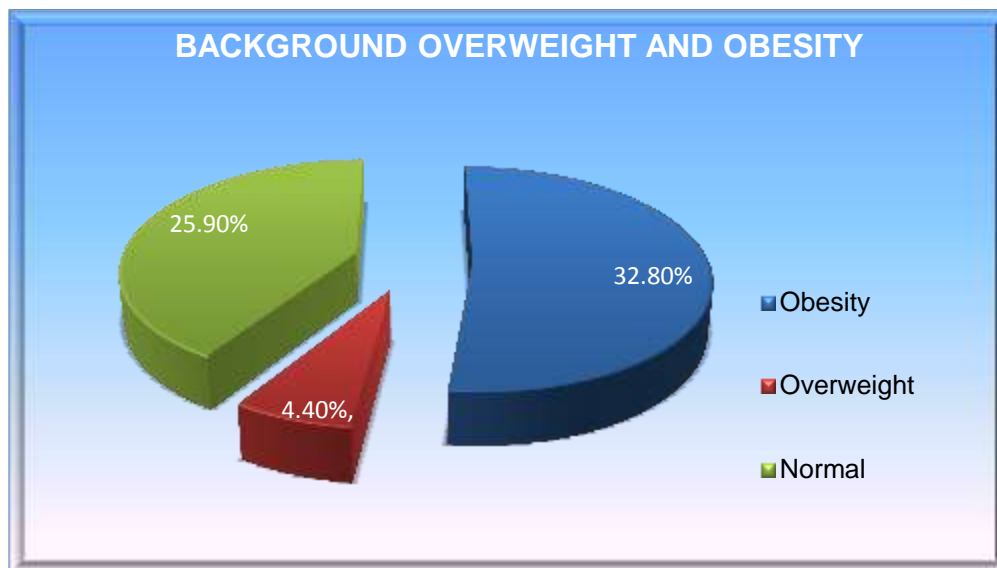
Source: breast cancer risk factors survey

Graph 5:-



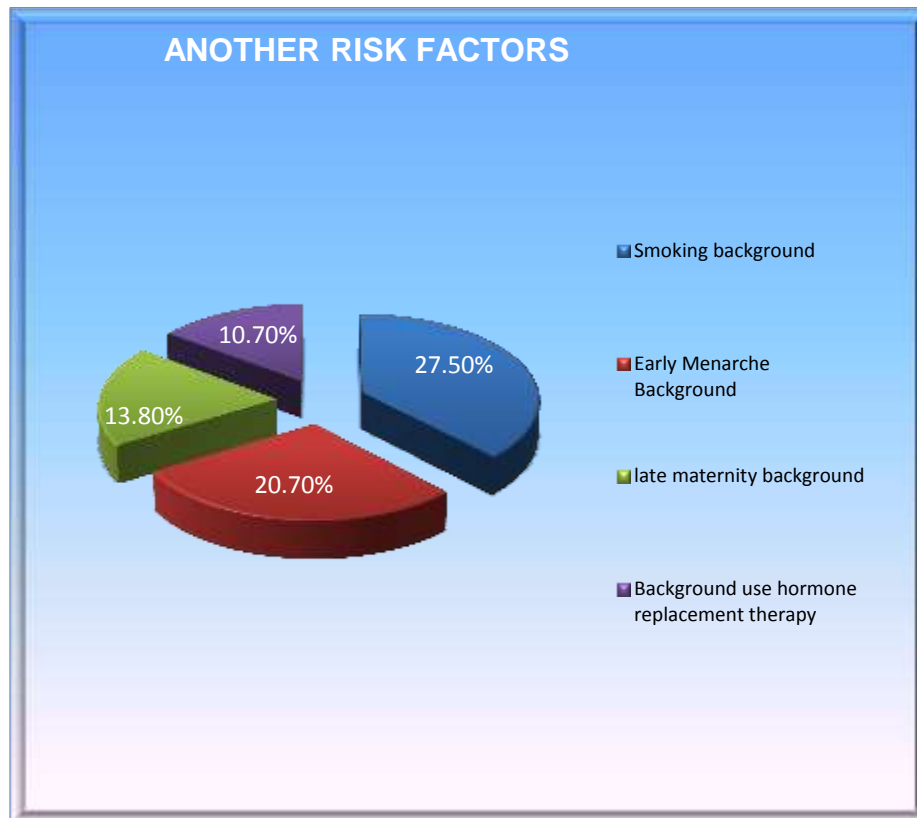
Source: breast cancer risk factors survey

Graph 6:-



Source: risk factors survey for breast cancer

Graph 7:-



Source: breast cancer risk factors survey

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