

# A STUDY OF FACTORS OF BREAST CANCER AMONG WOMEN PATIENTS OF DHQ HOSPITAL FAISALABAD

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## ABSTRACT

**Introduction:** Breast cancer is the second most reason of death in women. There is not any more one factors for breast growth however numerous. The researcher fined it that breast cancer is not only in developed countries but also in developing countries like Pakistan but the ratio of patients in less developed countries are less and also the patients have less knowledge about the breast cancer. Numbers of breast cancer patients are come for cure at DHQ Hospital FSD. **Objective:** Our research focus was to find the factors of breast cancer among women patients at DHQ Hospital FSD. Facility to cure this disease is available at DHQ hospital Faisalabad. **Method:** For collection of data we organized a questionnaire which was filled by the respondents. Result is analyzed in SPSS software. **Setting:** We conclude a research report which shows the main factors of breast cancer among women patients at DHQ Hospital FSD. **Result:** Our research shows that the factors of breast cancer are that getting older, overweight, X-ray or radiotherapy, Dense breast tissues, Sex hormones, Certain benign breast conditions, Radiation to chest, Induced abortion, Breast implants, Dense Breast tissues become the factors of breast cancer and Alcohol, inherited genes, not having children, smoking, being inactive, starting menstruation early, family history, reproductive history and physically inactivity can't become the factors of breast cancer.

**Key words:** Breast cancer, Factors, Cause of death. Developing Countries.

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## INTRODUCTION

The etiology of breast cancer is complex. There's not any further one reason for breast cancer but various. There's presently not one type of breast neoplasm but a couple of. Breast cancer contains a great impact on world well ness because the most continuous obtrusive damage and therefore the second typically traditional reason for price from most diseases in women. Also, it strikes ladies whereas they're in their most paid years, and since of the truth of heap impacts on the high caliber of life and effect on families, breast neoplasm impacts ladies' commonplace well ness and deserves the logical intrigue it gets. Since the middle Nineties, there has been a downward-sloping vogue in mortality; within the term 2010– 2014, this pattern brought down each

year at a standard of 1.6%, though within the equivalent length frequency dilated marginally at a standard of 0.3% for every year. Frequency has stretched all told race/ethnic organizations with the exception of whites, that have to be compelled to be due to extended screening or to real can increment in new tumors; so, the importance of this stretch out may ought to be each positive and negative.

Dealing with the multiple factors answerable of causing of breast malignancy has possessed researchers for a substantial length of your time. The incessant right around quintuple distinction in breast most tumors prevalence in the course of nations globally is perhaps not aiming to be thanks to hereditary inclination and focuses to

ecological variables or on the opposite hand home stipulations in high-salary worldwide areas. The editorial that outsiders from low-frequency worldwide areas travel the upper rate expenses of universal areas to that they relocate delineates that whichever ecological components are live will act to grow prices in here ditarily comparative people in 2 ages. At intervals the u.s cites fluctuate altogether, what is a lot of, positive teams and regions of the USA with the best rate prices have seen hoisted open issue and backing created to higher secure the inconvenience and act to decrease abundance danger. Procreative elements clearly assume a significant half known with introduction to cyclic estrogen and progesterone, however worries concerning different causative components, significantly from outside natural sources, for instance, concoction toxicants, still drive examine request what is a lot of, animate involves activity at the scope degree.

Breast cancer is worldwide pathological state currently each day. The second common explanation for death in ladies is breast cancer. Due to its high prevalence and mortality, breast cancer could be a general medical issue round the world. It's the foremost widely known sickness in women each within the developed and fewer developed world in line with World Cancer analysis Fund International. In 2017, it's assessed that there'll be 252,710 new instances of breast malignancy.<sup>1</sup>

What's a lot of, it's the second reason for sickness death in developed nations and therefore the most astounding reason for malignancy passing in less developed nations. Breast cancer rate demonstrates varieties in numerous populaces. During this approach, the importance of knowing the hazard factors for carcinoma for a superior comprehension of such varieties is incontestable. This proof proposes that there are totally different natural factors that prompt different frequency rates. the foremost elevated prevalence of

carcinoma in 2012 was in Northern America and Oceania, and therefore the least prevalence was in Asia and continent in line with truth Sheets by Population. Somewhat a lot of instances of carcinoma were analyzed in less created nations (53%). In any case, the foremost elevated extent of breast malignancy survivors were in created nations.

In the USA, breast tumor is that the second usually traditional issue for malignancy passing and therefore the most well-known reason for obtrusive sickness in women. For 2015, the assessed yearly frequency of breast growth was finished 230 000, which same year, there have been over 40000 connected passing's. In spite of the very fact that the breast tumor survival rates are increasing a results of changes in determination, administration, and treatment, a couple of women grow a lot of forceful forms of breast growth, that represent the bigger a part of the carcinoma mortality.<sup>2</sup>

Histological growth review is used to explain the multiplication of the growth to demonstrate health problem intensity, decide forecast, and foresee survival. While not a doubt, the review of a carcinoma growth is believed to be a basic prognostic marker, and provides doctors with a quick and actual instrument for measuring growth intensity to assist direct the fitting course of treatment. Higher-review tumors area unit connected with a lot of forceful infection and better rates of repeat and metastasis.<sup>3</sup>

Breast cancer usually refers to a malignancy in girls that arises from the terminal ductal lobe units of animal tissue that within the mature breast represent 100 percent of the overall volume. Worldwide carcinoma has several etiological factors, as well as case history of carcinoma, benign breast diseases, age, sex, hormones and procreative history factors (early start, late or no pregnancy), western way (high caloric diet, lack of physical activity and

connected factors), radiation, drugs, agro-chemicals, factor mutations, alcohol, and smoking.<sup>4</sup>

## LITERATURE REVIEW

### Environment

A broad meaning of surroundings incorporates whatever that is presently not hereditary.<sup>5</sup>

### Social Environment

Breast cancer chance is raised among female of more socioeconomic status (SES) potentially owing to a great extent to conceptive examples.<sup>6</sup>

### Built Environment

The developed condition is what is attributable to individuals' intentional activities to make what is more, have an effect on the substantial world. Wherever folks live, work, and play may additionally act in impressive techniques to administer crisp sustenance retailers or open area for diversion, taking strolls ways that, and distinctive factors that will invigorate physical action. Similarly, the developed setting will act in terrible courses, as an example, at the purpose once noxious dumps square measure set aboard wherever people live, once corner retailers outfit convenient inspire admission to Alcohol and tobacco things, and once the absence of walkways and totally different aspects hinder strolling what is a lot of, extraordinary assortments of real action.

The social and developed surroundings credits of neighborhoods seem to play a state of affairs in carcinoma likelihood, and considering these impacts for the duration of different populaces may well be vital to comprehension connected racial/ethnic disparities in breast cancer peril.<sup>7</sup>

### Toxicologic and Chemical Environment

In most recent decades, the evidence from toxicologic and unthinking examination pertinent to Breast cancer etiology has considerably expanded. Studies have endeavored to analyze affiliations between exposures to natural

chemicals and either Breast cancer or some middle of the road result important to Breast cancer (e.g age at menarche).<sup>8</sup>

## SPECIFIC ENVIRONMENTAL EXPOSURES

We have gathered natural exposures into way of life factors or exposures affected through human decisions and practices, endocrine disturbing chemicals, mainly in private items, and modern also, rural chemicals. The main teams of behavioral factors are impacted no longer just by individual decisions, yet additionally by method for societal and natural circumstances past individual control.

### Exogenous Hormones

#### Hormone replacement and oral contraceptives.

Breast cancer may be a hormonally dependent damage and also the relationship of oral contraceptives and endocrine elective answer for carcinoma have therefore been of splendid enthusiasm to analysts throughout the years. Oral contraceptives area unit used for begin management and different logical thought processes by utilizing around 16% of young girls matured 15– 44 years. Proof proposes that they're cancer-causing for current purchasers, but the danger disperses when 4years once halted. Since most utilization of oral contraceptives is among young girls in their fertile years once the danger of carcinoma is low, the danger of Breast most cancer from oral contraceptives at the lots degree is low.<sup>9</sup>

### Physical Activity

Physical action is no matter alternative outside natural issue that's modifiable in wish of carcinoma countervailing action. Most medicine investigations have watched a protective impact of physical action, notwithstanding the type, nevertheless it's doubtless solely for biological time carcinoma. The proof for a defensive affiliation between physical endeavor and biological time breast cancer risk is a smaller

amount steady. The instrument doubtless works through drop-off the amount of body ponderousness but might likewise work by means that of decreasing steroid hormone ranges. A additional noteworthy end read of the associations among natural toxins, physical movement, uptake programme, and carcinoma would provide additional potential outcomes for aversion.<sup>10</sup>

### **Dietary Factors**

A few varied years previous, abundant question won't to be done to assess dietary fats and alternative principle supplements as causative angles for carcinoma on the grounds that such a regular was thus steady with the multiple world selection in carcinoma rates. Still, that line of analysis neglected parenthetically an affordable association with carcinoma. Could be intemperate quality admission and low physical movement prompting immature stoutness and connected weight procure in mid life may likewise clarify the monster world contrasts in carcinoma frequency connected with fats admission. Some confirmation recommends that monounsaturated fats (e.g., olive oil) could likewise genuinely decrease the chance of breast cancer.<sup>11</sup>

### **Alcohol**

Alcohol utilization as a causative perspective in carcinoma has been much according from in way over 100 examinations the employment of each case-control and companion plans and from numerous nations round the globe. In general, the scale of the relative chance is around 1.5 for the employment of 45 g of Alcohol for every day, that is proportional to around 3 mixed beverages for every day and holds for a Alcohol (wine, lager, or spirits).<sup>12</sup>

### **Vitamin D**

In current years, there has been a unprecedented arrangement leisure activity within the capability of sustenance D in carcinoma frequency as

pleasantly as survival and mortality. vitamin D will be calculable with the guide of sun presentation gauges, dietary admission, and flowing blood serum 25(OH)D.<sup>13</sup>

### **Tobacco**

Tobacco smoke incorporates additional distinguished than twenty factors that area unit revered cancer-causing agents, and these substances will be seen within the breast liquid and tissue of feminine UN agency smoke. Later audits of gift epidemiological writing by means that of the International Agency for Research on Cancer (IARC) and a Canadian review cluster facilitate a causative association between gung ho smoking and carcinoma, particularly in ladies UN agency started smoking before their initial full-term maternity what is additional, among young women UN agency have a hereditary attribute, NAT2 continuous acetylators, that moderates the digestion what is additional, purging of tobacco unwellness inflicting specialists.<sup>14</sup>

## **METHODOLOGY**

This section describe the method of collection of data and the method of result interpretation.

### **Research Design**

This research was based on Quantitative in nature.

### **Population and Sampling Technique**

Population of the study will be comprised the patients and doctors working in the DHQ hospital of Faisalabad. The sample of the study was 50 respondents. The data was collected by conducting a survey.

### **Research Instruments**

Primary data which is used for this study was collected through a questionnaire. This questionnaire was consisting on different close ended questions related to the respondent's personal and breast cancer.

### **Data Collection**

Data was collected by making a survey in DHQ hospital Faisalabad. During this survey a

validated questionnaire will be filled by the doctors and patients coming in the hospitals. For this purpose random purposive sampling technique will be used to collect data.

**Data Analysis**

Data was analyzed by using SPSS (Statistical Packages for Social Sciences) version 20.

**RESULT**

The data gathered were coded and analyzed using descriptive statistic and frequency percentage. Descriptive statistic was summarized data to know the percentages of different variables of the questionnaires using SPSS version 20. The frequency percentage statistics was used to show the differences of each question.

| Do you think that getting older become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 48        | 96.0    | 96.0          | 96.0               |
| Valid No  | 2         | 4.0     | 4.0           | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that overweight become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 46        | 92.0    | 92.0          | 92.0               |
| Valid No   | 4         | 8.0     | 8.0           | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think Alcohol become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 6         | 12.0    | 12.0          | 12.0               |
| Valid No   | 44        | 88.0    | 88.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that inherited genes become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 6         | 12.0    | 12.0          | 12.0               |
| Valid No  | 44        | 88.0    | 88.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that X-ray or radiotherapy become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 4         | 8.0     | 8.0           | 8.0                |
| Valid No  | 46        | 92.0    | 92.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that Dense breast tissue become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 46        | 92.0    | 92.0          | 92.0               |
| Valid No  | 4         | 8.0     | 8.0           | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that not having children or having them later become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 4         | 8.0     | 8.0           | 8.0                |
| Valid No   | 46        | 92.0    | 92.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that smoking become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 4         | 8.0     | 8.0           | 8.0                |
| Valid No  | 46        | 92.0    | 92.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that being inactive become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 2         | 4.0     | 4.0           | 4.0                |
| Valid No   | 48        | 96.0    | 96.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that sex hormones and other hormones become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 45        | 90.0    | 90.0          | 90.0               |
| Valid No  | 5         | 10.0    | 10.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that Certain benign breast conditions become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 48        | 96.0    | 96.0          | 96.0               |
| Valid No   | 2         | 4.0     | 4.0           | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that Starting menstruation (periods) early become the reason of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 7         | 14.0    | 14.0          | 14.0               |
| Valid No  | 43        | 86.0    | 86.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that Having radiation to your chest become the reason of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 45        | 90.0    | 90.0          | 90.0               |
| Valid No   | 5         | 10.0    | 10.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |



| Do you think that Induced abortion become the reason of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 43        | 86.0    | 86.0          | 86.0               |
| Valid No   | 7         | 14.0    | 14.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that Breast implants become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 45        | 90.0    | 90.0          | 90.0               |
| Valid No  | 5         | 10.0    | 10.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that if a person has family history of breast cancer, he/she can be victim of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 5         | 10.0    | 10.0          | 10.0               |
| Valid No  | 45        | 90.0    | 90.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that High socio-economic status is the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 3         | 6.0     | 6.0           | 6.0                |
| Valid No   | 47        | 94.0    | 94.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

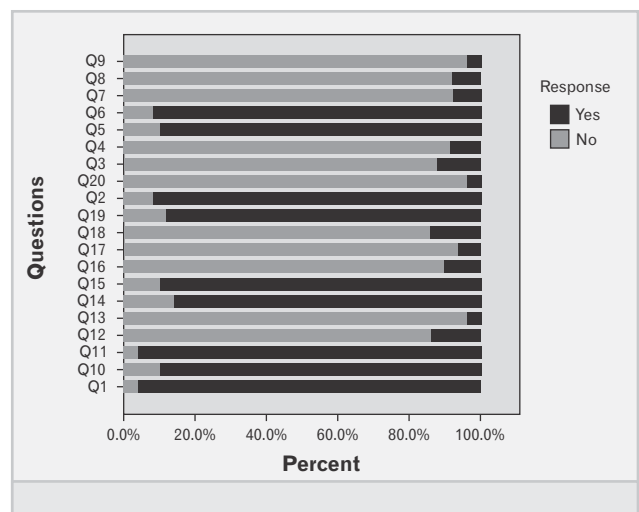
| Do you think that Reproductive history become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 7         | 14.0    | 14.0          | 14.0               |
| Valid No   | 43        | 86.0    | 86.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that Dense breasts tissue become the factor of breast cancer? |           |         |               |                    |
|--|-----------|---------|---------------|--------------------|
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes  | 44        | 88.0    | 88.0          | 88.0               |
| Valid No   | 6         | 12.0    | 12.0          | 100.0              |
| Total  | 50        | 100.0   | 100.0         |                    |

| Do you think that physically inactivity become the factor of breast cancer? |           |         |               |                    |
|---|-----------|---------|---------------|--------------------|
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Yes   | 2         | 4.0     | 4.0           | 4.0                |
| Valid No  | 48        | 96.0    | 96.0          | 100.0              |
| Total   | 50        | 100.0   | 100.0         |                    |

| Do you think that physically inactivity become the factor of breast cancer? |    |      |                |  |
|---|----|------|----------------|--|
|   | N  | Mean | Std. Deviation |  |
| Do you think that getting older become the factor of breast cancer?         | 50 | 1.04 | .198           |  |
| Do you think that overweight become the factor of breast cancer?            | 50 | 1.08 | .274           |  |

|   |    |      |      |
|---|----|------|------|
| Do you think Alcohol become the factor of breast cancer?  | 50 | 1.88 | .328 |
| Do you think that inherited genes become the factor of breast cancer?                                     | 50 | 1.92 | .274 |
| Do you think that X-ray or radiotherapy become the factor of breast cancer?                               | 50 | 1.10 | .303 |
| Do you think that Dense breast tissue become the factor of breast cancer?                                 | 50 | 1.08 | .274 |
| Do you think that not having children or having them later become the factor of breast cancer?            | 50 | 1.92 | .274 |
| Do you think that smoking become the factor of breast cancer?   | 50 | 1.92 | .274 |
| Do you think that being inactive become the factor of breast cancer?                                      | 50 | 1.96 | .198 |
| Do you think that sex hormones and other hormones become the factor of breast cancer?                     | 50 | 1.10 | .303 |
| Do you think that Certain benign breast conditions become the factor of breast cancer?                    | 50 | 1.04 | .198 |
| Do you think that Starting menstruation (periods) early become the reason of breast cancer?               | 50 | 1.86 | .351 |
| Do you think that Having radiation to your chest become the reason of breast cancer?                      | 50 | 1.10 | .303 |
| Do you think that Induced abortion become the reason of breast cancer?                                    | 50 | 1.14 | .351 |
| Do you think that Breast implants become the factor of breast cancer?                                     | 50 | 1.10 | .303 |
| Do you think that if a person has family history of breast cancer, he/she can be victim of breast cancer? | 50 | 1.90 | .303 |
| Do you think that High socio-economic status is the factor of breast cancer?                              | 50 | 1.94 | .240 |
| Do you think that Reproductive history become the factor of breast cancer?                                | 50 | 1.86 | .351 |
| Do you think that Dense breasts tissue become the factor of breast cancer?                                | 50 | 1.12 | .328 |
| Do you think that physically inactivity become the factor of breast cancer?                               | 50 | 1.96 | .198 |
| Valid N (listwise)  | 50 |      |      |



## DISCUSSION

After interpreting the whole result of questionnaire and summarizing in Graph, We conclude a result that the patients of DHQ Hospital FSD think that getting older, overweight, X-ray or radiotherapy, Dense breast tissues, Sex hormones, Certain benign breast conditions, Radiation to chest, Induced abortion, Breast implants, Dense Breast tissues become the factors of breast cancer and Alcohol, inherited genes, not having children, smoking, being inactive, starting menstruation early, family history, reproductive history and physically inactivity can't become the factors of breast cancer.

## REFERENCES

1. National Academies of Sciences, E., & Medicine. (2017). Using 21st century science to improve risk-related evaluations: National Academies Press.
2. Daniels, K., Daugherty, J. D., & Mosher, W. D. (2015). Current contraceptive use and variation by selected characteristics among women aged 15-44: United States, 2011-2013.
3. Rudel, R. A., Fenton, S. E., Ackerman, J. M., Euling, S. Y., & Makris, S. L. (2011). Environmental exposures and mammary gland development: state of the science, public health implications, and research recommendations. *Environmental health perspectives*, 119(8), 1053.
4. Wolff, M. S., Camann, D., Gammon, M., & Stellman, S. D. (1997). Proposed PCB congener groupings for epidemiological studies. *Environmental health perspectives*, 105(1), 13.
5. Hertz-Picciotto, I., Adams-Campbell, L., Devine, P., Eaton, D., Hammond, S., Helzlsouer, K., . . . Kramer, B. (2012). *Breast cancer and the environment: a life course approach*: National Acad. Press.
6. Ma, H., Bernstein, L., Pike, M. C., & Ursin, G. (2006). Reproductive factors and breast cancer risk according to joint estrogen and progesterone receptor status: a meta-analysis of epidemiological studies. *Breast Cancer Research*, 8(4), R43.
7. Conroy, S. M., Shariff-Marco, S., Koo, J., Yang, J., Keegan, T. H., Sangaramoorthy, M., . . . Satariano, W. A. (2017). Racial/ethnic differences in the impact of neighborhood social and built environment on breast cancer risk: the Neighborhoods and Breast Cancer Study: AACR.
8. Rudel, R. A., Attfield, K. R., Schifano, J. N., & Brody, J. G. (2006). Chemicals causing mammary gland tumors in animals signal new directions for epidemiology, chemicals testing, and risk assessment for breast cancer prevention: AACR.
9. Deierlein, A. L., Wolff, M. S., Pajak, A., Pinney, S. M., Windham, G. C., Galvez, M. P., . . . Biro, F. M. (2016). Longitudinal associations of phthalate exposures during childhood and body size measurements in young girls. *Epidemiology (Cambridge, Mass.)*, 27(4), 492.
10. Bravi, F., Decarli, A., & Russo, A. G. (2018). Risk factors for breast cancer in a cohort of mammographic screening program: a nested case-control study within the FRiCaM study. *Cancer medicine*.
11. Oyesanmi, O., Snyder, D., Sullivan, N., Reston, J., Treadwell, J., & Schoelles, K. M. (2010). Alcohol consumption and cancer risk: understanding possible causal mechanisms for breast and colorectal cancers. *Evid Rep Technol Assess (Full Rep)*, 197, 1-151.
12. Garcia, E., Hurley, S., Nelson, D. O., Hertz, A., & Reynolds, P. (2015). Hazardous air pollutants and breast cancer risk in California teachers: a cohort study. *Environmental Health*, 14(1), 14.
13. Ambrosone, C. B., Kropp, S., Yang, J., Yao, S., Shields, P. G., & Chang-Claude, J. (2008). Cigarette smoking, N-acetyltransferase 2 genotypes, and breast cancer risk: pooled analysis and meta-analysis. *Cancer Epidemiology and Prevention Biomarkers*, 17(1), 15-26.

14. Akay, C. L., Albarracin, C., Torstenson, T., Bassett, R., Mittendorf, E. A., Yi, M., . . . Hunt, K. K. (2018). Factors impacting the accuracy of intra operative evaluation of sentinel lymph nodes in breast cancer. *The breast journal*, 24(1), 28-34.
15. Brett, J., Fenlon, D., Boulton, M., Hulbert Williams, N. J., Walter, F., Donnelly, P., . . . Watson, E. (2018). Factors associated with intentional and unintentional non adherence to adjuvant endocrine therapy following breast cancer. *European journal of cancer care*, 27(1), e12601.
16. Breyer, J. Z., Wendland, E. M., Kops, N. L., Caleffi, M., & Hammes, L. S. (2018). Assessment of potential risk factors for breast cancer in a population in Southern Brazil. *Breast cancer research and treatment*, 1-7.
17. Cohn, B. A., Wolff, M. S., Cirillo, P. M., & Sholtz, R. I. (2007). DDT and breast cancer in young women: new data on the significance of age at exposure. *Environmental health perspectives*, 115(10), 1406.
18. Conroy, S. M., Clarke, C. A., Yang, J., Shariff-Marco, S., Shvetsov, Y. B., Park, S.-Y., . . . Kolonel, L. N. (2017). Contextual impact of neighborhood obesogenic factors on postmenopausal breast cancer: The Multiethnic Cohort: AACR.
19. Deardorff, J., Ekwaru, J. P., Kushi, L. H., Ellis, B. J., Greenspan, L. C., Mirabedi, A., . . . Hiatt, R. A. (2011). Father absence, body mass index, and pubertal timing in girls: differential effects by family income and ethnicity. *Journal of Adolescent Health*, 48(5), 441-447.
20. Drobysheva, A., Butt, Y., & Sahoo, S. (2018). Abstract P5-22 14: Assessment of risk factors in women undergoing contralateral prophylactic mastectomy after breast cancer diagnosis: Experience at an academic medical center: AACR.
21. Gasmelseed, A., & Alharbi, A. H. (2018). Geographic Information System (GIS) Modeling Analysis and the Effects of Spatial Distribution and Environmental Factors on Breast Cancer Incidence *Encyclopedia of Information Science and Technology*, Fourth Edition (pp. 3448-3459): IGI Global.
22. Harris, J., Cornelius, V., Pursell, E., Ream, E., & Armes, J. (2018). A systematic review to identify risk factors for anxiety after treatment for non-metastatic breast cancer and evaluate multivariate model development. Paper presented at the PSYCHO-ONCOLOGY.
23. Hiatt, R. A. (2011). Epidemiologic basis of the role of environmental endocrine disruptors in breast cancer *Environment and Breast Cancer* (pp. 1-27): Springer.
24. Kogevinas, M. (2001). Human health effects of dioxins: cancer, reproductive and endocrine system effects. *Apmis*, 109(S103).
25. Liu, R., Nelson, D., Hurley, S., Hertz, A., & Reynolds, P. (2015). Residential exposure to estrogen disrupting hazardous air pollutants and breast cancer risk: the California Teachers Study. *Epidemiology* (Cambridge, Mass.), 26(3), 365.
26. Marmot, M., Atinmo, T., Byers, T., Chen, J., Hirohata, T., Jackson, A., . . . Leitzmann, C. (2007). Food, nutrition, physical activity, and the prevention of cancer: a global perspective.
27. McGuinn, L. A., Voss, R. W., Laurent, C. A., Greenspan, L. C., Kushi, L. H., & Windham, G. C. (2016). Residential proximity to traffic and female pubertal development. *Environment international*, 94, 635-641.
28. Næss, Ø., Strand, B. H., & Smith, G. D. (2007). Childhood and adulthood socioeconomic position across 20 causes of death: a prospective cohort study of 800 000 Norwegian men and women. *Journal of Epidemiology & Community Health*, 61(11), 1004-1009.
29. Nie, J., Beyea, J., Bonner, M. R., Han, D., Vena, J. E., Rogerson, P., . . . Edge, S. B. (2007). Exposure to traffic



emissions throughout life and risk of breast cancer: the Western New York Exposures and Breast Cancer (WEB) study. *Cancer Causes & Control*, 18(9), 947-955.

30. Purdue, M. P., Hutchings, S. J., Rushton, L., & Silverman, D. T. (2015). The proportion of cancer attributable to occupational exposures. *Annals of epidemiology*, 25(3), 188-192.
31. Rodgers, K. M., Udesky, J. O., Rudel, R. A., & Brody, J. G. (2018). Environmental chemicals and breast cancer: An updated review of epidemiological literature informed by biological mechanisms. *Environmental research*, 160, 152-182.
32. Shen, J., Liao, Y., Hopper, J. L., Goldberg, M., Santella, R. M., & Terry, M. B. (2017). Dependence of cancer risk from environmental exposures on underlying genetic susceptibility: an illustration with polycyclic aromatic hydrocarbons and breast cancer. *British journal of cancer*, 116(9), 1229.
33. Simon, M. S., Beebe Dimmer, J. L., Hastert, T. A., Manson, J. E., Cespedes Feliciano, E. M., Neuhauser, M. L., . . . Ruterbusch, J. (2018). Cardiometabolic risk factors and survival after breast cancer in the Women's Health Initiative. *Cancer*.
34. Steenland, K., Fletcher, T., & Savitz, D. A. (2010). Epidemiologic evidence on the health effects of perfluorooctanoic acid (PFOA). *Environmental health perspectives*, 118(8), 1100.
35. Warner, M., Mocarelli, P., Samuels, S., Needham, L., Brambilla, P., & Eskenazi, B. (2011). Dioxin exposure and cancer risk in the Seveso Women's Health Study. *Environmental health perspectives*, 119(12), 1700.
36. Wolff, M. S., Teitelbaum, S. L., Pinney, S. M., Windham, G., Liao, L., Biro, F., . . . Rybak, M. E. (2010). Investigation of relationships between urinary biomarkers of phytoestrogens, phthalates, and phenols and pubertal stages in girls. *Environmental health perspectives*, 118(7), 1039.
37. Wu, A., Yu, M., Tseng, C., & Pike, M. (2008). Epidemiology of soy exposures and breast cancer risk. *British journal of cancer*, 98(1), 9.

**AUTHORSHIP AND CONTRIBUTION DECLARATION**

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