



# BREASTFEEDING IS AN ADDITIONAL PROTECTIVE FACTOR FOR BREAST CANCER AMONG WOMEN LIVING IN THE METROPOLITAN AREA OF TRIESTE

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**Abstract** — The role of breastfeeding as protective factor for breast cancer incidence is controversial among scientific literature. The Interdisciplinary Senology Unit of Trieste has analyzed the relation between breast cancer incidence and lactation habits among a total of 4307 Trieste's women. In this study, the statistical analysis revealed that over having children, the breastfeeding is a further protective factor for breast cancer. In particular, the decrease of breast cancer risk by breastfeeding resulted to be significant for lactation more than 12 months. It is worth noting that breastfeeding resulted protective only for women in childbearing age and it didn't result to decrease breast cancer risk among post-menopausal women.

**Index Terms** — Breast cancer, Breastfeeding

# 1 BACKGROUND

The role of breastfeeding as a protective factor in the onset of breast cancer has conflicting positions in medical literature [1,2]. Friuli - Venezia Giulia is one of the Italian regions with the highest standardized European incidence rate of breast cancer, with 144 new cases per year. In particular, Trieste holds the unenviable record of 148 new cases of breast cancer per 100,000 women per year, which is higher than the average Italian and European Union rate, being 105 and 110 new cases, respectively (IARC 2006).

# 2 OBJECTIVES

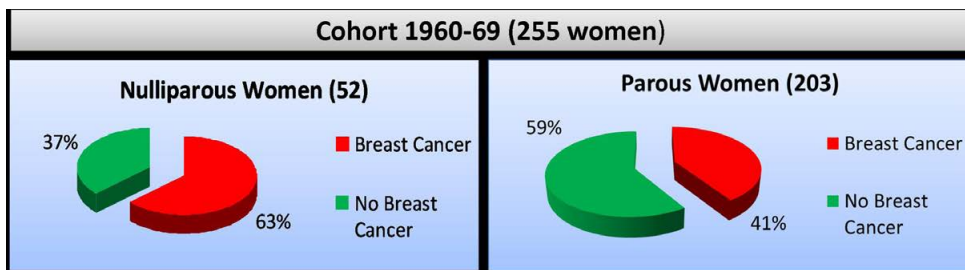
In medical literature, the role of lactation in the breast carcinoma risk incidence has not been yet clarified. Focusing on the high incidence rate of breast cancer among Trieste's female population, this study aims at better understanding the role of breast feeding in the development of malignant breast pathologies.

# 3 APPROACH & METHODS

Since 2006, at the Interdisciplinary Senology Unit of Trieste, a questionnaire to assess the factors related to the onset of breast carcinoma was distributed to a total of 4307 women (equal to 6.2% of the female population of Trieste), comprising of subjects with benign and malignant mammary diseases as well as wide cohort of healthy women. The cases were divided according to birth cohort (from 1930 – 39 to 1970 - 79) and the variables "number of children", "age at first delivery" and "time of breastfeeding" were analyzed. In addition, a retrospective case-control study was conducted to assess the possible protective role of pregnancy and lactation in the onset for breast carcinoma, focusing on the 1930-1969 cohort (the 1970-79 cohort was excluded due to the low number of subjects). Each case was matched by age. For statistical analysis we used the software R.

# 4 RESULTS

This study analyzes the factors related to the reproductive history of the Trieste's female population. It is representative of the major "social" changes recorded during the last decades: increase of nulliparous women (from 15% to 27%), increasing age of women at first delivery (median age increased from 24 to 30 years) and a decrease of nulliparous women who have not breast-fed (from 35% to 14%). The analysis confirms the data already reported in literature [3], that having children reduces, especially in young women, the risk of breast cancer: for those born between 1950-1959, the relative risk is  $RR = 0.56$  [C.I. 0.39-0.97], which decrease for the 1960-69 cohort to 0.40 [C.I. 0.21-0.75]. Moreover, in our preliminary study, breastfeeding is a further protective factor for women in childbearing age with  $RR=0.30$  [C.I. 0.11-0.76] and  $RR = 0.16$  [C.I. 0.06-0.44] if breastfeeding was prolonged for more than 12 months. Notably, after menopause onset, the risk of breast carcinoma is not influenced by breastfeeding time period [2].



## **5 WHAT NEW PRODUCT OR SERVICE MIGHT BE REALISED THANKS TO YOUR RESULTS?**

This study was not designed to create specific medical products but to support health services and primary prevention promotion; its goal and outcome is to raise awareness among women of the importance of breastfeeding for the health of both mother and child.

## **6 CONTACTS/COLLABORATIONS NEEDED**

Territorial companies and public health institutions in Friuli Venezia-Giulia to evaluate the breastfeeding role in breast cancer in other areas of the region. Particular interest in the exchanges of skills and data with neighboring partners.

## **7 COMMUNICATION TOOLS/STRATEGY**

[it.linkedin.com/pub/fabrizio-zanconati/36/5a4/748](https://it.linkedin.com/pub/fabrizio-zanconati/36/5a4/748)  
[www.researchgate.net/profile/Bruna\\_Scaggianti/](http://www.researchgate.net/profile/Bruna_Scaggianti/)  
<https://it.facebook.com/pages/LILT-Trieste/111827265501273/>

## **8 FUNDS NEEDED (FORECAST)**

For applied research (solutions for real-world problems): to improve the knowledges of the relation between breastfeeding and breast cancer risk ; to develop a questionnaire in the languages of the neighboring Countries and to promote among the partners the survey study, including data collection and analysis (25.000€)

## **9 COLLABORATIONS**

- With other researchers (TRL0-4):YES (OTHER AUTHORS OF POSTER)
- With hospitals (TRL9): YES (Azienda Ospedaliera –Universitaria Ospedale Riuniti Trieste)
- With associations (TRL9): YES LILT

## **REFERENCES**

[1] Lancet 2002,360,187-195; [2] Human Reproduction Update 2000.6 (4) ,374-38, [3] Endocrine -Related Cancer 2007,14,907 - 933 , [4] Lancet 1997,350,1047-1059