Awareness, attitude and practice of breast self-examination among young women from Universidad Santo Tomás, Bogotá, Colombia: a cross-sectional study

Jose Francisco Meneses Echavez

1) Introduction: Several evidences have demonstrated that breast cancer and other types of cancer can be prevented by adopting a healthy lifestyle, having a special emphasize in physical activity, quit smoking and alcohol, and an adequate consumption of fruits and vegetables. Moreover, it is important to highlight that early detection is crucial when expecting about prognosis. In this sense, international agencies such as the U.S. Preventive Services Task Force (USPSTF) and the International Association for Research on Cancer have encouraged those behaviors linked to the early detection of cancer, where breast self-examination is the first step for detection of breast malignancies; these recommendations have been also provided by the National Cancer Institute in Colombia.

In spite of this strong body of evidence, it has been described that young women do not know how to exam their breast and that the association between unhealthy behaviors and breast cancer risk remains unknown in this population, leading these women to be exposed at a high-risk of getting the disease. This lack of educational campaigns is reflected on the alarming rates of breast cancer and other non-communicable diseases in Colombia and worldwide.

2) Methods

Objective: The main aim of this project is to determine the associations between the practice of breast self-examination, the preventive knowledge and unhealthy lifestyles in young women studying at Universidad Santo Tomás in Bogotá, Colombia.

Sample characteristics: We included young women (>16 years old) studying at the Universidad Santo Tomás in Bogotá, Colombia. These women were invited to fulfill the questionnaires by singing the consent form.

Data collection: We used the DACH questionnaire published by the German multicenter surveillance study to identify the practice of breast self-examination, corresponding knowledge and attitudes. The Behavioral risk factor surveillance system (BRFSS) was used to collect data regarding behavioral factors.

Statistical analysis was presented through descriptive statistics (frequency tables and central tendency measures). Multivariate regression analyses were undertaken to establish the associations between breast self-examination and preventive knowledge with lifestyle factors with the corresponding confidence interval of 95% (CI95%). Statistical significance was set at $p<0.05$. Data were analyzed using SPSS 22.0.
**Results:** A cross-sectional study was carried out involving data from 352 young Colombian women. Participants were a mean age of 30.7±11.8 years old. Fifty-seven percent of the women knew how to carry out BSE, although only 26.3% perform it monthly. Further, a sedentary lifestyle was found in 53.3% of women and similar prevalences were observed for other behavioral variables. BSE was associated with age (p=0.02), socioeconomic status (p<0.001), knowledge about risk factors (p<0.001) and unhealthy lifestyles (p<0.001).

**Conclusions:** There exists a low level of knowledge and practice of BSE among young Colombian women. This population is in a high-risk of breast cancer because of the critical prevalence of some behaviors related to unhealthy lifestyles found in this study. Further health-promotion strategies are warranted.