A SCIENTIFIC DEBATE ESSAY – AUTOETHNOGRAPHY

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"The unexamined life is not worth living" a quote by a great philosopher – Socrates.

I would start my essay with the above quote because it is most befitting for the given topic of debate. I chose to be against the motion of this debate held in the class "**Easy availability of mammograms has resulted in unnecessary procedures for breast cancer detection".** When I read the motion for the first time, I knew that I would always choose against the motion because as per my knowledge and experience all tests or procedures are necessary especially when they are the gold standard throughout the world for detection of the second most common cancer in the world among women.

During debate, everyone had strong evidence in terms of articles and studies for their own opinions. Everyone is entitled to their opinions and that is what everyone portrayed during the debate where the stand for the motion was divided among speakers almost equally. Several peers highlighted interesting points related to mammograms such as higher false-positive ratio of mammograms, higher false-negative results, exposure to radiation, overdiagnosis, misdiagnosis, calcifications found in breast tissue, associated psychological stress from mammograms. According to me, the most amazing point was of risk-benefit ratio highlighted by Rahamthulla Shaik where he mentioned that risk-benefit ratio should be determined during any screening or diagnostic procedures. Any procedure has its own pros and cons but looking at the overall population one should determine whether it is harming or helping the people of the world. Additionally, my fellow peer, April Taylor, even though her stand for the debate does not match mine but she made a point that better screenings are needed rather than the number of screenings. I agreed with her viewpoint because after all, the innovations which have been done or are going on are done to make people's life easier. Another peer, Akanksha, mentioned an insightful point about decreased mortality rate around the world due to early detection via mammograms which is an answer for this debate. Early detection in women who do not have any genetic marker for breast cancer can benefit from annual or biannual screenings of their breasts at their recommended age. Furthermore, a point made my fellow peer, Mansi Pagare, that if not mammogram than what other option do we have for detection of breast cancer? Clinical examination and mammogram are widely accepted gold standard diagnostics around the world for breast cancer. According to Breast Cancer Research Statistics and Resources, in 2020, more than 2.3 million women were diagnosed with breast cancer worldwide and 6,85,000 died. Every 14 seconds a woman gets diagnosed with breast cancer. I do believe that further investigations such as biopsy, CEM, CESM, WBUS are some further investigations done by doctors but nowadays innovations are occurring to reduce the side-effects of the screening procedures. Use of Artificial Intelligence and Machine Learning is done to create prediction models to increase the sensitivity, specificity, and accuracy ratio for mammograms. MIRAI is one of such models which predicts nearly half of all incidences of breast cancer up to 5 years before they happen. Hence, innovations in this field will help improve the patient safety and quality of care and

reduce the risks and harms related to mammograms. All the points made for the motion were quite interesting and insightful but the point about radiation is what I countered in the rebuttal round. According to American Cancer Society, a typical screening mammogram uses only 0.4 mSv (including two views of each breast). This amount of radiation annually or biannually has lesser effect on the body. American Cancer Society mentions that a woman receives less radiation from a mammogram of both breasts than the amount she receives from her natural surroundings (background radiation) over 7 weeks. Hence, both the rounds and the arguments done in the debate has made me even more firm on my stand that easy availability of mammograms has not resulted in unnecessary procedures for breast cancer detection.

Furthermore, my notion about diagnosis, treatment, and prevention in the field of healthcare is associated with me being a dentist. I have diagnosed and treated diseases, understood pain of the patients, and even seen deaths due to oral cancers on an interpersonal level. I have observed and lived that pain with the patients but have always seen bad outcomes due to late diagnosis. My personal experience with cancer is rather bitter itself because my grandfather was diagnosed with 4 different types of cancer in a span of 20 years, I have seen what cancer does to the patient, his family and up to some extent to his doctors. Cancer has 50% chance of killing you but late detection, poor prognosis, delayed treatment and misdiagnosis or late diagnosis has 100% chance of killing you and that is what has made me proactive my whole life. Henceforth, I have a very strong opinion about screening tests and like to be conscious when it comes to my own health and my family's health.

In conclusion, I would focus more on that, mortality rate has drastically reduced according to BCRF by 40% due to early diagnosis and prevention taken by women. Even though, it comes with some risks, I feel it is worth a life even if it is one life which is saved. Accuracy and efficiency are part of healthcare and therefore needs detection tools and dedicated investment.

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