



Health Communication for Cancer awareness among women in rural Punjab

DR. HARGUNPREET SINGH¹ & DR. HAPPY JEJI²

¹Assistant Professor, Department of Journalism & Mass Communication, Mata Gujri College, Fatehgarh Sahib, Punjab, India.

²Associate Professor, Department of Journalism & Mass Communication, Punjabi University, Patiala (Punjab), India

Abstract

Health Communication plays a significant role in shaping perceptions, raising awareness, and influencing policies in healthcare. It acts as a bridge between the public, healthcare professionals, and policymakers, facilitating communication and education. It informs the public about health-related issues to promote understanding and positive health outcomes. It focuses on exchanging messages to raise awareness, educate, and encourage the masses to make healthier choices. It encompasses various forms like doctor-patient conversations, public health campaigns, and media messaging, all aimed at improving healthcare knowledge and behavior. Various media platforms play a crucial role in preventing and managing health issues, especially during public health crises. The contribution of women in society varies remarkably based on the nation, region, culture, economic conditions, etc. In the present scenario, women are entering into every field of this universe like engineering, finance, mathematics, science, technology, and so on. The involvement of women is rapidly rising but on the other hand, the rate of health issues faced by them is also escalating. People in rural areas generally have less access to healthcare than their urban counterparts. Hence, rural health infrastructure is more important to be studied. The preeminent motive of the study is to understand the general self-assessment of health consciousness among rural women and study the general understanding and awareness among rural women about cancers predominantly affecting women.

Keywords: Mass Media, Health literacy, Health education and awareness, Socio-economic factors.

Introduction

Health is a state of complete physical, mental, and social well-being, and not just the absence of illness or disability. It is a dynamic and complex condition that differs from person to person and is influenced by a variety of factors, including a person's lifestyle, genetics, environment, and access to medical treatment. Communication fosters understanding, promotes cooperation, resolves conflicts, and allows people to connect with one another. Health is undeniably an essential factor that plays the most important role in every woman's social well-being (World Health Organization, 2024). Health communication encourages healthy practices of life styles, prevents disease, reduces disabilities and promotes the well-being of people (Nkanunye & Obiechina, 2017).

Health communication refers to the use of communication strategies and techniques to advance public health, communicate health information, and change individual and societal behaviors connected to health and wellbeing. It refers to the dissemination of health-related information and messages to individuals, communities, and populations with the goal of promoting health, preventing diseases, and influencing health behaviors. It involves various channels such as mass media, social media, interpersonal communication, public health campaigns, and healthcare providers. By providing distinct audiences with clear, accurate, and pertinent

health information, this specialized sector hopes to enhance health outcomes. Understanding the target audience, speaking clearly and taking into account cultural sensitivities, and using the right channels of communication are all necessary for effective health communication (Harrington, 2020, p. 31).

There have been numerous studies that show that women deal with more health issues as compared to men. A research study 'Awareness and Perception of Health Issues among Rural Women' highlights the importance of increasing public health and well-being in rural regions. When it comes to gaining access to healthcare, learning about health concerns, and establishing healthy habits, many rural women face unique challenges. The lives of these women, as well as those of their families and communities, can be greatly improved by initiatives to increase health awareness among them. These initiatives can use various mediums such as interactive workshops, community gatherings, audio-visual materials, and mobile health campaigns to disseminate information effectively. Collaborating with NGOs, local governments, and healthcare providers can also strengthen the impact of health awareness programs for Indian rural women (Selvam et al., 2020).

As per the findings of the National Family Health Survey (NFHS-5) 2019-21, women are less healthy than men in terms of obesity, risk of malnutrition, and anaemia, or the absence of red blood cells or haemoglobin in the blood. Furthermore, rural women perform worse than their metropolitan counterparts in this survey. The total number of women in rural areas with Body Mass Index (BMI) below normal is more than the number of women in urban areas with BMI below normal. Participants in the survey were between the ages of 15 and 49 and it was found that women are still at a significant risk of anaemia because of blood loss from pregnancy and menstruation (Ministry of Health and Family Welfare, 2021). Likewise, the news report "Lancet study says half of Indians physically unfit: What should you do to get off the mark now?", half of the adult Indian population does not meet the World Health Organisation's (WHO) guidelines on sufficient physical activity, according to new data published in the Lancet Global Health. It has been found that more women (57 per cent) than men (42 per cent) are physically inactive. Dr. K. Srinath Reddy, public health expert and top cardiologist pointed out that several studies within India had shown the low levels of physical activity among women, who wrongly believe that household chores are a good form of physical exercise (Mascarenhas, 2024).

Many studies, news stories and reports have been released which point out that it is crucial to concentrate on cancer prevention through awareness programs, supporting healthy lifestyles, and offering accessible and reasonably priced healthcare in order to overcome the obstacles faced by this health concern in Indian women. WHO News release dated (February 01, 2024) highlighted the growing burden of cancer, the disproportionate impact on underserved populations, and the urgent need to address cancer inequities worldwide referring to the latest estimates of the global burden of cancer by its cancer agency, the International Agency for Research on Cancer (IARC). "In 2022, there were an estimated 20 million new cancer cases and 9.7 million deaths. The estimated number of people who were alive within 5 years following a cancer diagnosis was 53.5 million. About 1 in 5 people develop cancer in their lifetime, approximately 1 in 9 men and 1 in 12 women die from the disease". It also mentioned that "over 35 million new cancer cases are predicted in 2050, a 77% increase from the estimated 20 million cases in 2022". Further, "for women, the most commonly diagnosed cancer and leading cause of cancer death was breast cancer, whereas it was lung cancer for men. Breast cancer was the most common cancer in women in the vast majority of countries (157 of 185)".

Cancer care in India is a complex and evolving landscape, encompassing prevention, diagnosis, treatment, and supportive care for individuals. One of the key concerns is the existing care gap, where access to quality cancer care and treatment is not uniformly distributed. This gap is particularly noticeable in rural areas where healthcare facilities are limited. Cancer survival rates and staging at the time of diagnosis serve as dependable matrices to assess the effectiveness of cancer control initiatives in a region, offering a comprehensive evaluation of the overall efficiency of healthcare services for cancer (ICMR-National Centre for Disease Informatics and Research, 2024). This report shares that the sedentary lifestyles, rising urban pollution, obesity, cigarette and alcohol use, among other variables, are to be blamed for nearly 13 lakh cancer diagnoses in India each year. It indicates that during the next five years, the number of cancer cases in India would increase by 13 percent. It also emphasizes that one in ten new cancer diagnosis in India each year are breast cancer cases. Breast cancer is the most prevalent disease in women, while cervical cancer is the second most prevalent cancer in 16 PBCRs, according to the Indian Council of Medical Research's consolidated disease Registry Reports. These two cancers account for more than 50 percent of cancer-related deaths in India. Breast, cervical, and lung

cancer are the three most common malignancies in India, accounting for more than 17.3 lakh new cases and more than 8.8 lakh cancer deaths.

According to the National Institute of Cancer Prevention and Research, Noida (2021), breast cancer and cervical cancer are the two types of cancer that affect women the most frequently in India. The incidence of breast cancer rises in the early thirties and peaks between the ages of 50 and 64 in India, where it affects 27% of all women. According to statistics, one in two women suffering from breast cancer pass away, and the second most common kind of cancer in women i.e. cervical cancer accounts for 23 percent of all cancer occurrences and mainly affects women between the age of 21 and 67. Regular screenings and early detection are essential for enhancing the prognosis of cancer. Expanding research and financing for cancer treatment and palliative care are essential steps in reducing the impact of cancer on Indian women at large.

The Federation of Indian Chambers of Commerce & Industry's study "Call for Action: Expanding cancer care for women in India" (2017) revealed that cancer among Indian women is increasing rapidly and that India has the third-highest number of female cancer cases after China and America. According to the study's statistics, the three malignancies that most frequently affect women are breast (19%), cervical (14%) and ovarian (7%) account for 40 percent of all cancer cases among Indian women. The research makes the crucial observation that despite the well-established advantages of screening, women's awareness levels are quite low because out of the 2000 women who were diagnosed with cancer, 1200 malignancies were found in advanced stages. It further predicted that by the year 2025, the incidence of cancer among women in India will rise from 110 per 1 lakh people to more than 190 per 1 lakh people.

The socio-economic factors in health communication are of key importance because they affect how people receive, comprehend, and react to health information. A wide range of economic and social status characteristics, such as income, occupation, educational attainment, employment, and resource accessibility are those important factors which have a substantial impact on cancer awareness. How people from various socio-economic backgrounds acquire information about the disease, how they perceive it, and how likely they are to take part in cancer preventive and early detection activities is very crucial to understand a problem in right perspective. People in rural areas generally have less access to healthcare than their urban counterparts. Hence, rural health infrastructure is more important to be studied. Thus, this study can be quite helpful in bringing out interesting facts related to the health communication for cancer awareness among women in rural areas. It can also be important to analyze general self-assessment of health consciousness among rural women and study the general understanding and awareness among rural women about cancers predominantly affecting women. The study is also significant as it studies the general health-seeking behavior and awareness about need and importance of regular screening and health checkups.

Significance of the study

On global health front, there are many issues and determinants which affect multiple countries depending upon multiple numbers of global health factors. Cancer is one of the major health concerns across the world. An overview of health challenges in India highlights that four diseases namely heart disease, cancer, diabetes and chronic pulmonary diseases contribute nearly 80% of all deaths due to NCDs (Non-Communicable Diseases) and they share common risk factors. How aware is the population about important health issues is equally important as is important access to healthcare. Health communication on cancer awareness is one such important topic which attracts attention in many health and academic fields in various social, political and economic sectors. Effective health communication is critical to health and wellbeing. The main focus of health communication is to help the people understand and act on health information. The purpose of health communication is to disseminate health information and to improve health literacy which contributes to better health outcomes for individuals and society. The components of communication play a key role in sending and receiving health messages. The scope of communication is very immense as it operates on vast level in various sectors. Awareness is defined as an understanding that someone or something exists and is being able to convert that understanding to the knowledge. The general understanding in knowledge about health, healthcare, health needs, diseases and preventive measures help in making informed decisions. It is a step in the direction which leads an individual to make positive changes on health front. Any study conducted in this field is very significant in itself as it helps to understand health communication perspectives on multiple fronts.

The study undertaken here is one such attempt to understand the general self-assessment of health consciousness among rural women and study the general understanding and awareness among rural women about cancers predominantly affecting women. This is survey-based study amidst the many news reports and studies highlighting high cancer prevalence and high incidence of cancer deaths. The survey has been conducted in rural areas in three districts – Bathinda, Ludhiana and Sangrur in Punjab, which is one of the most prosperous states in the country. Agriculture is mainstay of the Punjab's economy. It is also known as the food bowl of India as it contributes nearly two-third of the total production of food grains, thereby contributing to national food security. The glimpse on Punjab (punjab.gov.in) shows the total area of Punjab is 50,362 km² out of which total rural area is 48,265 km² which is almost 95 percent of the total area of the state, far above the national percentage i.e. 75 percent of the total area of the country. Similarly, the total population of Punjab is 2,77,43,338 out of which 1,73,44,192 (62% of the total population) lives in rural Punjab. The female population living in rural Punjab is 82,50,716 i.e. 48 percent of the total rural population. Population density in Punjab is 550 per sq km. The literacy rate in Punjab is 70.8 percent. Punjab has total 23 districts, geographically classified into *Majha*, *Malwa*, *Doaba* and *Poahd* regions. Punjab is considered to have the best infrastructure in India, including road, rail, air and river transport links. Punjab also has the lowest poverty rate in India and has won the best state performance award, based on statistical data compiled by the Indian government (punjab.gov.in). Malwa is the largest region of Punjab geographically in terms of area. It is the largest region politically also as 69 out of total 117 assembly seats fall in this region. *Malwa* belt has been selected for survey purpose for varied reasons. It has 15 districts - *Barnala*, *Bathinda*, *Ferozepur*, *Fazilka*, *Faridkot*, *Ludhiana*, *Moga*, *Mansa*, *Sri Muktsar Sahib*, *Patiala*, *Sangrur* and *Malerkotla*. Major conurbations in Punjab are Amritsar, Jalandhar, Ludhiana, Patiala and Chandigarh. UT Chandigarh is a capital city (capital of both Punjab and Haryana states).

Objectives

The broader objective of this research has been to understand health communication for cancer awareness among women in rural Punjab. Therefore, this study has been chalked out to fulfill the objectives as stated below:

1. To study the general self-assessment of health consciousness and awareness among rural women about cancers predominantly affecting women.
2. To study general health-seeking behavior and awareness about the need and importance of regular screening and health checkups.
3. To understand the role of health communication and health care providers in generating health awareness especially cancer awareness amongst rural women and understand the attitudinal and socio-economic barriers coming in the way of preventive health.
4. To understand the role of health communication through media utilization and dependency among the rural women in Punjab regarding health communication in general and cancer awareness in particular.

Research Methodology

The research paper aims to explore and gain insights and experience of rural women on the issues specifically level of health consciousness, awareness and access to the treatment of cancer and its prevention. The design of the present research was formulated based on the nature of the study. The approach of this study is descriptive i.e. to describe the perception of respondents and thereby study the attitudes and behaviors regarding health awareness. An exhaustive survey was carried out to evaluate the health communication activities and awareness level of rural women regarding this problem. The purposive sampling under non-probability sample category has been selected, where participants are deliberately chosen based on the specific criteria relevant to the research objectives. In the present research project, the total sample comprised of 900 women respondents belonging to rural areas of three districts of Punjab state viz. Ludhiana, Bathinda and Sangrur. Three villages from each of these districts in Malwa belt of Punjab were selected for survey. To make it a representative sample, it was divided on the basis of four categories i.e. area, employment, education and age.

Literature Review

Cancer is a leading cause of death worldwide. Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women. Around one-third of deaths from cancer are due to tobacco use, high body mass index, alcohol consumption, low fruit and vegetable intake, and lack of physical activity. The cancer burden continues to grow globally, exerting tremendous physical, emotional and financial strain on individuals, families, communities and health systems. Many health systems in low and middle-income countries are least prepared to manage this burden, and large numbers of cancer patients globally do not have access to timely quality diagnosis and treatment. In countries where health systems are strong, survival rates of many types of cancers are improving thanks to accessible early detection, quality treatment and survivorship care (World Health Organization, 2022).

Health Communication: Strategies and Skills for a New Era book covers a broad base of information from communication and health behavior theory, community-based program planning, and social marketing constructs to develop effective and culturally appropriate health communication. The book presents current, practical methods for the use of digital and interactive media in health communication interventions and includes the coverage of health disparities, women's health, and health literacy. It suggests that it is crucial to keep in mind that combating cancer in any area necessitates a multifaceted strategy that includes research into possible risk factors, environmental policies, lifestyle awareness, and healthcare infrastructure. Hence, communities and public health organisations must collaborate to lessen the burden of cancer and enhance the population's overall health and well-being (Parvanta & Bass, 2020, p. 26). The book *Nutritional Oncology: Nutrition in Cancer Prevention, Treatment, and Survivorship* presents the evidence-based approaches to the study and application of nutrition in all phases of cancer including prevention, treatment, and survivorship. Cancer continues to claim countless lives and torment humanity, so the fear of contracting cancer or seeing a loved one battle the disease is a common and normal emotional reaction to the possibility of doing so. Although being worried about cancer is perfectly acceptable, controlling excessive worry is crucial for general wellbeing. Taking proactive measures for early identification, prevention, and emotional support can help reduce cancer-related anxiety (Heber et al., 2021, p. 13).

Various news stories also highlighted these estimates. For instance, Indian Express (February 1, 2024) while highlighting these estimates, headlined "WHO report showing that breast, oral and cervical cancer accounted for 32 per cent of new cases in India". Cancer cases in women marginally outnumbered those in men with 7,22,138, of them affected compared to 6,91,178 men. "India reported over 14.13 lakh new cancer cases and 9.16 lakh deaths in 2022 according to latest estimates released by the World Health Organization (WHO)'s cancer agency, the International Agency for Research on Cancer (IARC) ahead of the World Cancer Day on February 4. The top five cancers among Indian women were found to be those of breast, cervix, ovary, mouth and colorectum. The top five cancers among men were those of the oral cavity, lung, oesophagus, colorectum and stomach", highlighted the paper (Mascarenhas, 2024). A news story in the leading English daily 'The Times of India' also highlighted cancer cases are increasing steadily in our country. There is a need to discuss the prevalence of cancer among the young population because over 65% of the population in India is below 35 years of age (Baral, 2024).

The BBC news report 'Why cancer strikes more women than men in India?' presents interesting insights about the disease prevalence in detail. The story highlights "For oncologists worldwide, India can look like a puzzling outlier when it comes to cancer. For one, despite reporting more than 1.5 million new cases every year, India's cancer rate remains lower than, say, the economically advanced US. That's about 100 cases per 100,000 people compared with 300 in the US" Men report a 25% higher incidence of cancer than women all over the world, but India bucks this trend". The story further says, "But that is because breast, cervical, ovarian and uterine cancer, that account for more than 70% of the cancers in women in India, allow higher chances of survival on treatment. Indian men suffer largely from lung or oral cancer - both related to smoking and ingesting tobacco - which are more virulent with lower survival rates." (Biswas, 2018).

A research article titled "Current status of gynecological cancer care in India," published in the Journal of Gynecological Oncology (2019) discloses that the majority of needy women have not been able to reach the cancer screening programmes, due to their very low health and living conditions in rural regions. Rural women

are more susceptible to malignancies than urban women, particularly cervical cancer, due to risk factors such as early marriage, early childbearing, inadequate genital cleanliness, and chronic infection. Gynecological cancers, which include cervical, ovarian, uterine (endometrial), and vaginal cancers, are those that develop in the female reproductive system. The biggest problem is the lack of knowledge regarding gynecological malignancies, especially in rural regions (Devi, 2009).

A news report 'Why early detection is key to deal with women's cancers?', published in *The Hindu*, shares the cancer statistics of various organizations which shows that India has crossed over 17 lakh new cases of cancer and over 8 lakh deaths. The cervical cancer typically strikes between the ages of 35 and 55, or in midlife which makes it crucial for women to continue getting screened for cervical cancer until they are at least 70 years old. Routine screening with Pap smear and Human Papillomavirus (HPV) tests can aid in early detection of precancerous cell alterations and stop the development of cervical cancer. Being aware of any unusual symptoms in the body and seeking medical attention promptly can help in the early diagnosis of various cancers. In addition to today's lifestyle and hereditary factors, some of the major causes of the growth in women-specific malignancies in India include an inadequate medical infrastructure, a terrible lack of awareness, low chances of early detection and screening, as well as the significant stigma attached to the disease (Vasudeva, 2018).

A news story titled "The Invisible Killer: How Cancer is Eating up Indian Women" published on News18 channel, cites the statistics produced by Noida-based National Institute of Cancer Prevention and Research, according to which one woman in India passes away from cervical cancer every eight minutes. The story highlights that despite of receiving the media attention due to celebrity associations, the problem of women's cancer in India is serious but it is largely unnoticed, hence, media can assist in dispelling cancer myths and beliefs that may cause fear, stigma, or ignorance. In order to encourage informed decision-making and lessen fear, it is critical to provide accurate and evidence-based information. The media outlets can highlight the value of routine screenings and self-examinations for early detection, and can help the cancer patients and their families find support groups, counseling services and trustworthy sources of information to guide them through their journey (Bhushan, 2018).

A news report "Cervical cancer is fully preventable, yet 200 women die of it every day in India!" written by Kalpana Sharma, published in *The Times of India* cited the report of National Center for Biotechnology Information, which reveals that In India, about 132,000 new cases are diagnosed and 74,000 deaths are occurred every year, accounting to nearly 1/3rd of the global deaths due to cervical cancer. It is challenging for women to undergo frequent check-ups and screenings in rural areas of India due to the lack of access to healthcare resources and facilities. The main elements of these initiatives are routine screenings, vaccinations, and education. A comprehensive strategy that involves screening, early diagnosis and treatment programs can lower the high mortality rate from cervical cancer that exists internationally. In addition to immunization before girls start having relationships, secondary prophylaxis can be carried out through routine cervical screenings, which can detect any abnormal cells in the cervix before they develop into cancer (Sharma, 2019).

Research report "The psychosocial experiences of women with breast cancer across the lifespan: a systematic review protocol" published in 'National Library of Medicine' stated that both the cancer patients and their loved ones may endure a highly complex and difficult psychological reaction to the disease. It's critical to understand that every person's experience is different since it depends on a variety of variables, including the type and stage of the cancer, available treatments, individual coping methods, and social support networks (Enns, H. C. & Woodgate, R., 2015). "*Health Communication: Theory, Method and Application*" book written by Nancy Grant Harrington (2015), Professor in the Department of Communication in the College of Communication and Information at the University of Kentucky, United States, gives importance to the supportive family communication to improve the patient's health. The first chapter of the book refers to a survey conducted by the researchers to explore the significance of social support in patient's wellbeing, reveals that the people who have more social support from their friends and family members are less lonely and healthier, whereas the ones who have less social support, are much lonelier and much stressful leading to their poor health. Overall, social support is invaluable in helping cancer patients cope with the challenges they face and improving their overall quality of life. Open communication, empathy, and a willingness to be actively involved in the patient's care are essential components of effective family support during cancer treatment. A

positive and nurturing environment can enhance the patient's overall well-being and quality of life during treatment and recovery. Some of the major causes of the growth in women-specific malignancies in India include a grossly inadequate medical infrastructure, a terrible lack of awareness, low chances of early detection and screening, as well as the high stigma attached to the disease. Family support plays a crucial role in the journey of cancer patients. A cancer diagnosis can be overwhelming for both the patient and their family members. The emotional, physical, and practical support from family can significantly impact the patient's well-being and treatment outcomes.

In research article "Committed to your Health" written by a leading oncologist, specialized in the treatment of malignant diseases of the breast at Herzliya Medical Center in Israel, stated that the recovery percentage in Israel is very high as more than 90 percent of the women who have breast cancer get recovered because the disease is diagnosed in its earliest stages, in the first or second stage. She informed that breast cancer is now mainly common in the older generation of women between 50 to 60 years of age and every woman over 25 years should be screened annually by a specialist. As their economic standing rises, women will have a greater social role and voice in the home and village. Women will aggressively assert their rights as they grow in strength and awareness. As women's economic power grows, it will be easier to remove the dowry system and the "son preference" custom. As the demand for sons and tolerance for violence decline, the marriage age will rise and as they acquire better nutrition and marry later, women will be healthier, more productive and give birth to healthier children (Shimon, 2019).

This subject area is bound to have an indefinite number of studies for the obvious reasons. The review of literature places this study within the broader context of existing body of knowledge and thus helping to identify the gaps. The present study being undertaken here focuses on health communication for cancer awareness among women in rural Punjab. As this study falls in the preview of an academic study in the field of media and communication, it becomes more important as it attempts to focus on general self-assessment of health consciousness and awareness among rural women about cancers predominantly affecting women and understand the role of health communication through media utilization and dependency among the rural women in Punjab regarding health communication in general and cancer awareness in particular.

Results and Discussion

The study 'Health Communication for Cancer Awareness among Women in Rural Punjab' was undertaken to work upon the health communication, the science and art of utilization of communication to advance the health and well-being of people and population in rural areas. When it comes to health awareness, different demographic factors like occupation, education and age are very important. Therefore, a multivariate analysis was drawn to fulfill the objectives in previous chapter, it can well be concluded.

The data shows the general notions of health as perceived by the women living in the rural areas. Health is generally defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Findings also indicate that 34.8% women stated that being healthy means having healthy body without any illness or disease. For 32.8% women, it has been about having a sound mental and physical health, whereas 23.9% women viewed it as having a healthy family and society. Besides how you define or understand the meaning of being healthy, the self-assessment regarding how much you understand yourself in terms of being healthy is also important. The findings regarding how aware they have been about the general health; it has been encouraging to find that the responses which place themselves in the category where they admit that they are conscious (39.8%) about their health and well-being and give due importance to general well-being. It has been encouraging to notice that women (50%) find it important to take necessary steps to ensure good health. Similarly, there have been 37.8% of those also who believe that they have been conscious to some extent, whereas there have been those also who (22.4%) admit being less aware about their health and well-being. The responses however, do not show much difference when the data is analyzed on the basis of various demographic factors like education, occupation, age as discussed in detail in the previous chapter.

The key factors like balanced diet, timely medical checkup, health awareness, positive thinking and regular exercise on which the responses were sought from the respondents, highlights (29.8%) and (21.3%) respondents saying that 'timely medical checkup' and 'balanced diet' are important factors for maintenance of good health. It has been encouraging sign to note the women making informed decisions about diet and preventive care i.e.

making healthy lifestyle choices. Likewise, health awareness, positive thinking, and regular exercise responses too have been found important by (20.3%), (15.1%), and (11.9%) respondents. Other factors (1.6%) included clean environment, stress management and timely gynecological examination etc. The findings show the responses of the women regarding the extent of self-care and setting specific goals based on self-assessment while adopting the healthy life style habits, by focusing on the balanced diet, timely medical check-up and positive thinking is not very steadfast. The non-implementation of self-care goals can be attributed to many factors like lack of motivation to prioritize self-care goals, lack of time, financial or social support and so on. It's been discouraging to find here that as many as 52.4% respondents replied that they followed self-care and setting specific goals to a very less extent, whereas 32.9% respondents replied to follow specific goals to some extent and only 14.7% respondents agreed to largely adopt self-care goals.

The findings highlight that it's been cancer, diabetes, heart disease, HIV/AIDS, depression and tuberculosis which are mainly thought about as major/prevalent health concerns today. Going by the findings, 33.9% women said its 'cancer', 21.7% said its 'diabetes' and 18.9% said its 'heart diseases'. It was also found that 14.9% women reported 'AIDS', 5.6% women stated 'Mental disorders' and 4.1% women replied 'Tuberculosis' as their biggest health concern. The data shows the responses of women regarding the major health issue faced by them; it has been comforting to find that majority of the respondents (36.8%) replied that they had no issue. They generally talked about the common health metrics including blood pressure, blood sugar levels, cholesterol levels, bone density, stress levels and so on. Health communication revolves around educating people about education and prevention. Cancer awareness involves educating public about its symptoms, risk factors, prevention, importance of early detection, regular checkups, and encouraging healthy behavior which could help in reducing the risk factors. Moreover, it is aimed to reduce the stigma associated with it. There are many things which may come to mind when talking about cancer. 37.8% women described it as an incurable disease, 12.9% described it as a God's curse, 9.1% described it as a hereditary disease and 6% stated it as an infectious disease. The general perception about cancer obviously is a fear and anxiety as it is one such disease which is largely associated with death and suffering. However, 31.6% respondents also said that cancer treatment is possible due to advances in cancer treatment and health-care facilities. This shows that awareness and knowledge is leading to positive perception and better understanding of early detection and treatment.

There have been number of medical research reports conducted by various health organizations which have highlighted the number of causes behind cancer causation in Punjab including use of tobacco/drugs, pesticide/fertilizers exposure, increasing pollution, degrading lifestyle and eating habits etc. The findings indicate that 29.3% women believed that pesticides/fertilizers are the major cause behind increasing cancer problem in Punjab. Similarly, 28% reported increasing pollution, 23.4% stated tobacco/drugs and 18% replied degrading life style and eating habits as the major cause of cancer increase in the state. Only 1.2% women replied other causes which included ultraviolet radiation, obesity and genetic factors. It is true that cancer is associated with fear and anxiety due to various reasons. There are many challenging factors which come in the way of proper treatment as is evident from the responses of the respondents. It has been found that majority of 26.4% women feel that the major barrier in the proper treatment of cancer has been the habit of neglecting health problems for long, less awareness about treatment (23.4%), less availability of health services (22.8%) and huge medical expenses (17.7%). Moreover, 8.8% respondents also blamed wrong treatments by fake *hakeem* and *babas*. Whereas 0.9% respondents also enlisted other reasons like fear psychosis, gender discrimination and lack of family and social support. This is also not a hidden factor that women don't visit a doctor or seek medical advice unless they become seriously ill which results in delayed diagnosis and ultimately less survival rate.

However, the hope and optimism is also clearly visible from the findings as 36.1% rural women also reaffirmed the need of regular health checkups, 33.6% believing in timely medical treatment, 20% respondents believing in healthy and nutritious diet and 8.3% believing in maintaining good physical and mental health. These findings indicate that health communication goals need to be focused more on encouraging healthy behavior that can reduce risk factors. Cancer awareness among women is crucial as it empowers them with knowledge and tools to take control of their health. Raising awareness motivates women to have regular check-ups and screenings, which helps catch cancer early. A higher chance of survival and better treatment outcomes are frequently the benefits of early detection. Increasing awareness of cancer helps lessen the stigma attached to the illness.

Women who are well aware about the cancer can be essential in enlightening their families and communities. As findings show that (50.5%) rural women were in favour of raising cancer awareness among women to large extent, they were educated about promoting regular screenings and encouraging women to seek medical attention promptly which could help in early diagnosis and improved health outcomes.

While keeping in view the public health education, the attempt was made to find out the knowledge about most prevalent types of cancers affecting women globally. The findings show that 34.3% respondents believed that cervical cancer is the most prevalent cancer in women, while 34% respondents stated breast cancer, 12.4%, 11.9% and 6% women respondents replied lung cancer, oral cancer and blood cancer, and few 1.3% respondents mentioned skin, stomach and mouth cancers as the most common and prevalent cancers among women. Oncologists too opine that awareness about cancer and its preventive measures can enlighten the women to get themselves scanned more frequently because regular check-ups can play a very crucial role in fighting and defeating the cancer. Going by the findings, larger believing (63.4%) has been that health check-ups should be taken up only when they are needed, whereas some 10.3% respondents suggested six monthly and some 4.2% respondents opined that women should or need to undergo yearly checkups. Meanwhile, few of them (20.2%) believed that it depends on whenever you feel like. However, only 2.1% respondents hadn't any idea on this.

Mammography and PAP Smears are two important screening tests for detecting breast cancer and detecting pre-cancerous changes in the cervix (cervical cancer). The knowledge regarding these two tests i.e. what these two tests are meant for, was answered rightly by an encouraging number of 42.4% respondents across the various demographic factors like education, working/nonworking and age. While, 34.4% respondents hadn't any idea about these screening tests, whereas for (2.2%), (2.4%), (4.1%), (6.3%) and (7.9%), these tests were meant for AIDS, TB, diabetes, heart diseases and blood pressure respectively. Public will itself be more aware about these tests when there is an increased awareness of symptoms of the disease through doctors, physicians, nurses and other health care providers. In the digital age, selective exposure is evident in how individuals choose to learn about various things. With health communication reaching us from various sources, we may find which things are important to know. Majority responses (51.9%) as found in this study don't assign much importance of knowing and learning about the screening tests for breast and cervical cancers. 34.8% respondents said that they tried to gain knowledge and awareness regarding breast and cervical screening tests, whereas 13.3% respondents were not interested about this.

Since health education has been an important aspect of primary prevention to motivate people to seek early diagnosis and treatment, the awareness about early symptoms can be helpful. The multivariate analysis here highlighted that from (80 to 86.7%) response across all the demographic factors pointed towards not having tried to find out the earlier symptoms of breast cancer, whereas 10.4% said that they had tried it. The four components that fall with the realm of psychological health are mental health, emotional health, social health and spiritual health. In fact it is very difficult to deliberate on all these complex, complicated and intricate factors. Majority of the responses 63.7% indicate here that socio-economic factors can largely be held responsible coming in the way of maintaining good healthcare. There were those 23% who believe that these factors are responsible to some extent and 8.2% feel it's to less extent. While 5 per cent hadn't expressed any idea. The further expansions of the question regarding various socio-economic factors influencing preventive healthcare practices or access to healthcare highlighted that it is the financial and psycho-social barriers (34% & 34.3% respectively) which largely influence the access to healthcare. 12.4% respondents believed that it is mainly the general ignorance which can be held responsible in this regard, and 11.9% respondents said that it is the lack of self-care which comes in the way of maintaining good health. The 7.3% respondents didn't say anything in this regard. But saying nothing in any case is also equally important as it may have many implications. As mentioned earlier, lack of self-care is a major factor that can affect health status as self-care is essential for staying mentally and emotionally healthy. As per the observations, the role of family support (34.2%), economic support (30%), social support (14.3%) and strong will power (21.4%) can help to strengthen self-care tendency amongst the women.

On economic front, as far as awareness about various health sector schemes for financial assistance like Ayushman Bharat Yojana, Mukh Mantri Punjab Cancer Raahat Kosh and Health Minister's Cancer Patient Fund for prevention and treatment is concerned, making individuals aware of these services is crucial. The

findings indicate that there is very less awareness about various schemes as 67.1% respondents said that they hadn't heard about any such health scheme for cancer treatment. Mukh Mantri Punjab Cancer Raahat Kosh Scheme in Punjab was heard by 21.2% women. Only 7.7% women replied that they have heard about Ayushman Bharat Yojana and (4%) respondents said they have heard about 'Health Minister's Cancer Patient Fund' under Rashtriya Arogya Nidhi (RAN). ASHA (Accredited Social Health Activists) play a significant role in cancer care in India, especially in rural areas. They play a vital and multifaceted role in contributing towards cancer prevention, early detection, treatment access and supportive care services at the grassroots level. Their efforts improve cancer outcomes, reduce disparities, and enhance the quality of life for individuals affected by cancer by facilitating cancer screening programs, palliative care and regular follow-up visits to cancer patients. Findings also indicate that majority of 34% respondents stated about the information of government health schemes for cancer patients from Asha workers, 22% respondents replied newspapers, television, radio etc., 28% respondents said hospitals and health centers, and remaining 16% respondents replied society, neighborhood and relatives. The findings indicate that 65% women shared about the regular visit of ASHA workers or other medical workers in their village for spreading cancer awareness. Health workers, hospitals, media, society, neighbors, relatives etc. can be a good source of information about various health schemes.

The findings related with general perception about the role of media in cancer awareness show that a good percentage of 40.1% rural women believe that media largely plays an essential role in cancer awareness among women. In other words, the media platforms can be used to disseminate accurate health information and raise awareness about various health issues, preventive measures, and treatment. With 35.9% respondents admitting the role of media to some extent and 24% admitting it to less extent also underlines the media utilisation on cancer awareness is certainly there, though the degree of dependence may vary. Findings show that 35.2% respondents find print media as the best media for cancer awareness, 33.8% respondents see media utility of internet, 12.1% respondents find television a best way, 11.7% respondents report radio as best media and 7.2% respondents see potential in traditional media. Newspapers are important as 34% respondents said they remember reading cancer awareness related content in a newspaper or magazine. Newspapers particularly have a good reference value as is evident from the findings with 15% respondents saying they keep clippings of a good informative piece also. Similarly, only 36% women remembered watching any cancer awareness program on television, whereas 64% respondents hadn't seen any such program. As far as radio is concerned, only 15% respondents remembered listening a radio program on cancer awareness. In the same way, 20% remembered about reading or watching any informative content about cancer awareness on internet and social media.

Conclusion

Health is a central aspect of human existence and can be conceptualized and understood in many ways and perspectives as it is shaped by a wide range of demographic, cultural, socio-economic, political factors and so on. How we take the meaning of health in our individual roles and perceptions is also equally important. The findings also indicate that women who are working and educated are comparatively more conscious about themselves which implies that education and awareness are important factors for health promotion. Self-awareness about health is a step in the direction which takes us closer to understanding and being conscious of our physical and mental well-being. Besides, being self-aware also takes you closer to maintain overall well-being and seek timely medical help. Hence, health awareness among women is very crucial for enhancing public health and well-being. By increasing awareness, women can take better decisions about their well-being, leading to better overall health outcomes and quality of life. Women are increasingly realizing the importance of self-care, stress management, and seeking professional help when needed, but still a lot of work has to be done. This growing self-consciousness helps women to take charge of their health, make informed decisions, and lead healthier and more fulfilling lives.

Women often have multiple roles and responsibilities, including work, care giving, and other obligations, which can make it challenging to allocate time and energy to self-care. Additionally, the societal factors play a huge role in shaping our attitudes toward health and self-care. Viewing the self-care in totality involves taking into account various aspects of health i.e. physical, emotional, social and mental well-being. The findings show the responses of the women regarding the extent of self-care and setting specific goals based on self-assessment while adopting the healthy life style habits, by focusing on the balanced diet, timely medical check-up and

positive thinking is not very steadfast. The non-implementation of self-care goals can be attributed to many factors like lack of motivation to prioritize self-care goals, lack of time, financial or social support and so on. Knowledge and education about prevalent health issues such as heart diseases, diabetes, cancer, AIDS, tuberculosis, depression etc. helps in gaining knowledge about preventive measures and understanding risk factors and the ability to understand health information effectively. The findings highlight that it's been cancer, diabetes, heart disease, HIV/AIDS, depression and tuberculosis which are mainly thought about as major/prevalent health concerns today.

Cancer awareness involves educating public about its symptoms, risk factors, prevention, importance of early detection, regular checkups, and encouraging healthy behavior which could help in reducing the risk factors. Moreover, it is aimed to reduce the stigma associated with it. The general perception about cancer obviously is a fear and anxiety as it is one such disease which is largely associated with death and suffering. Findings have shown that awareness and knowledge is leading to positive perception and better understanding of early detection and treatment. This awareness and knowledge are important to lessen the misinformation. But, this is also not a hidden factor that women don't visit a doctor or seek medical advice unless they become seriously ill which results in delayed diagnosis and ultimately less survival rate. Raising awareness motivates women to have regular check-ups and screenings, which helps catch cancer early. A higher chance of survival and better treatment outcomes are frequently the benefits of early detection. Increasing awareness of cancer helps lessen the stigma attached to the illness. Women who are well aware about the cancer can be essential in enlightening their families and communities.

Over the years there have been many health challenges, exerting tremendous physical, emotional and financial stress, and cancer is one of such leading causes of concern globally. Health consciousness and awareness about cancers predominantly affecting women is low amongst women in rural areas irrespective of age, education and working and non-working status, proves true on the basis of findings which shows the awareness levels regarding self-assessment of health awareness, self-evaluation of health status, generalized prioritization of family's health, major factor for maintaining good health, self-care and setting specific goals based on self-assessment, knowledge about prevalent health concerns, paying attention towards health metrics and general viewpoint on cancer, remains significantly more or less the same.

Regular health check-ups are an important aspect of maintaining good health and preventing potential health issues. These check-ups involve a series of medical examinations and tests conducted at specific intervals, even if an individual is feeling well, to catch any potential problems early and ensure timely intervention. The frequency of specific tests included in a regular health check-up can vary based on factors like age, gender, medical history, and risk factors. Oncologists too opine that awareness about cancer and its preventive measures can enlighten the women to get themselves scanned more frequently because regular check-ups can play a very crucial role in fighting and defeating the cancer. Mammography and PAP Smears are two important screening tests for detecting breast cancer and detecting pre-cancerous changes in the cervix (cervical cancer). Public will itself be more aware about these tests when there is an increased awareness of symptoms of the disease through doctors, physicians, nurses and other health care providers.

Public health is a state subject and is taken care of by the respected state and UT governments at National level, the National Health Mission (NHM) with its two Sub-Missions, National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM) supports states and UTs to strengthen the healthcare systems by providing equitable and affordable healthcare services. The schemes under NHM are available at sub-districts and districts levels. Many programs/schemes are run by Govt. under 'National Health Mission for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases & Stroke (NPCDCS). Then there are many non-government organisations which are active in generating general health and cancer awareness. There are many steps being taken by the state government in Punjab for the treatment and control of cancer. State-wide cancer screening and treatment camps are organised to aware general masses regarding cancer and state-wide cancer awareness and symptom based early detection door to door campaigns are organised. The role of cancer camps is important in providing a supportive and therapeutic environment where individuals can connect with others who are going through similar experiences.

Since health education has been an important aspect of primary prevention to motivate people to seek early diagnosis and treatment, the awareness about early symptoms can be helpful. In the opinion of some health care

providers, the basic interest of women in learning about the early signs of breast cancer might vary, based on a number of variables, such as their own experiences, their family history, their cultural views, and their availability to medical information. Although the emotional, physical and practical support from family can significantly impact the patient's well-being and treatment, but the government must make the greater investments and strengthen the healthcare system. General understanding of the disease through awareness may eventually lead to cancer prevention, early identification, and timely treatment, in order to lessen stigma, misconceptions, and myths about cancer. Many women are aware of the importance of being proactive about the possible indicators of breast cancer in order to catch any abnormalities early. But facing the possibility of breast cancer can cause worry and anxiety in women which may result in avoidance behavior, when the person is not interested in becoming aware about the symptoms.

Similarly, the findings regarding knowing about the earlier symptoms of cervical cancer have been more or less the same. Talking to cancer specialist also underlined that by launching extensive educational campaigns to spread knowledge about cervical cancer, its risk factors, symptoms, and preventive actions through a variety of media, it is possible to raise women's curiosity in knowing about cervical cancer's early symptoms and promote preventive health practices. In addition to that, it is also important to establish peer education initiatives in which community health workers or trained volunteers inform women about cervical cancer and promote cancer screenings.

The general view of the oncologists gathered during pilot study before taking up the survey, revolved around those women who don't visit a doctor unless they become seriously ill which results in delayed diagnosis and ultimately less survival rate. Women frequently put the welfare and health of their families before their own health and well-being. Although campaigns for raising cancer awareness do exist, still very less women are aware about it. Cancer is still stigmatized that prevent women from seeking out information and education related to cancer. Women frequently balance a variety of obligations, such as employment, childcare, and housework, which put other facets of their lives ahead of learning about cancer symptoms. Therefore, breaking down these taboos through education and awareness is essential for promoting early detection, treatment and support for individuals affected by cancer.

Access to healthcare and health behavior is strongly influenced by various factors like financial barriers, psychosocial factors, general ignorance, general female tendency of ignoring own health and so on. The financial barriers are majorly responsible for determining health status, access to healthcare services and health behavior. The psycho-social factors associated with cognitive and behavioral processes which may include fear, stress, and anxiety too play a key role in determining the health status and health behavior. Similarly, the ignorance, lack of knowledge and unawareness may come in the way of this. Likewise, lack of self-care is a major factor that can affect health status as self-care is essential for staying mentally and emotionally healthy. Neglecting our own needs and health can lead to stress and anxiety. The four components that fall with the realm of psychological health are mental health, emotional health, social health and spiritual health

On economic front, as far as awareness about various health sector schemes for financial assistance like Ayushman Bharat Yojana, Mukh Mantri Punjab Cancer Raahat Kosh and Health Minister's Cancer Patient Fund for prevention and treatment is concerned, making individuals aware of these services is crucial. ASHA (Accredited Social Health Activists) play a significant role in cancer care in India, especially in rural areas. They play a vital and multifaceted role in contributing towards cancer prevention, early detection, treatment access and supportive care services at the grassroots level. Their efforts improve cancer outcomes, reduce disparities, and enhance the quality of life for individuals affected by cancer by facilitating cancer screening programs, palliative care and regular follow-up visits to cancer patients. The community-based approaches and more involvement of local health workers and women's self-help groups can be highly beneficial. Various mediums including interactive workshops, community gatherings, audio-visual materials and mobile health campaigns can disseminate information effectively. Health workers, hospitals, media, society, neighbors, relatives etc. can be a good source of information about various health schemes. Unity is the key in bridging this ever-widening cancer care gap in the country as combined efforts can play a major difference. General health-seeking approach of women is hindered by attitudinal and socio-economic barriers, proves true on the basis of findings which shows the awareness levels engagement through cancer awareness camps, efforts to know early symptoms of breast cancer and cervical cancer, influence of socio-economic factors on cancer care,

general notions about various socio-economic factors influencing preventive healthcare, need of support system to help women in the direction of self-care, general awareness about national and state health schemes, remains significantly more or less the same.

Media plays a significant role in health communication as it helps disseminate information, raise awareness about health issues and promote preventive measures. Media can influence the attitudes and beliefs and promote a good health behavior, which ultimately contributes to a better public health system. The information about prevention, early detection, treatment options and resources is of key importance for cancer awareness. Media can raise awareness about the importance of cancer screenings and latest advancements in cancer research and treatment. Media impacts attitudes, behaviours and perceptions. We are living in advanced media age, especially in the media convergence age. The merging of traditional and digital media platforms has led to the integration of various forms of communication into a single platform or device. In other words, with different types of media such as print, broadcast and online media coming on one platform has allowed us greater accessibility and interactivity. The mobile communication too has played a crucial role in today's interconnected world and revolutionized many aspects of daily life. Media platforms can be used to disseminate accurate health information and raise awareness about various health issues, preventive measures, and treatment.

Motivational stories and interviews of cancer survivors, patients, caregivers, and medical professionals can serve to clarify misconceptions and lessen the stigma attached to the disease. Media campaigns encourage healthy behaviours such as smoking cessation, physical activity, healthy eating, regular screening, and vaccination against cancer-causing viruses. Individuals may selectively choose different media outlets and sources that align with their preferences. It also suggests that a 360 degree approach to media is important for the health communicators to leverage to create a comprehensive and integrated health communication strategy to ensure maximum reach, engagement and impact. Leveraging television, radio, newspapers, magazines, websites, social media platforms etc. can be beneficial. Digital media specially offers interactivity and intimacy. Besides, interpersonal communication is equally important in health communication for a meaningful connection to address various issues on health front. Effective interpersonal communication provides a platform for engaging with people from diverse backgrounds. Hence, health communication through media utilization is not significantly low but there is a conscious ignorance towards preventive healthcare amongst various age, education and working and non-working groups, proves true on the basis of findings which shows the awareness levels through general estimation about the best media for cancer awareness, frequency of ASHA workers for spreading cancer awareness and general awareness about nearby hospital and health facilities, remains significantly more or less the same.

References

1. Baral, Maitree. (2024, April 2). India's cancer epidemic: What's causing an alarming rise of cancer among the youth.
<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/indias-cancer-epidemic-whats-causing-an-alarming-rise-of-cancer-among-the-youth/articleshow/109155439.cms>
2. Bhushan Shagun. (2018, July 30). One woman dies of cervical cancer every eight minutes in India.
<https://www.news18.com/news/lifestyle/health-and-fitness-the-invisible-killer-how-cancer-is-eating-up-indian-women-1828273.html>
3. Biswas, Soutik. (2018, March 28). Why cancer strikes more women than men in India.
<https://www.bbc.com/news/world-asia-india-43539369>
4. Devi, K. U. (2009). Current status of gynecological cancer care in India. *Journal of Gynecological Oncology*, 77-80.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2705002/>
5. Enns, H. C. & Woodgate, R. (2015, January 13). The psychosocial experiences of women with breast cancer across the lifespan: a systematic review protocol. <https://www.ncbi.nlm.nih.gov/pubmed/26447012>
6. Harrington, N. G. (2020). *Health Communication: Theory, Method and Application*. New York, NY: Routledge.

7. Heber, D., Li, Z., & Liang, V. (2021). *Nutritional Oncology: Nutrition in Cancer Prevention, Treatment & Survivorship*. CRC Press.
<https://www.routledge.com/Nutritional-Oncology-Nutrition-in-Cancer-Prevention-Treatment-and-Survivorship/Heber-Li-Liang/p/book/9781032002613#:~:text=Nutritional%20Oncology%3A%20Nutrition%20in%20Cancer%20Prevention%2C%20Treatment%2C%20and%20Survivorship,prevention%2C%20treatment%2C%20and%20survivorship.>
8. ICMR-National Cancer for Disease Informatics and Research. (2024, February 4). World Cancer Day 2024, Close the care gap – Addressing cancer care in India.
[https://ncdirindia.org/display/wcd.aspx#:~:text=Burden%20of%20Cancer%20in%20India&text=Within%200childhood%20cancers%20\(0%2D14,expected%20as%20compared%20to%20](https://ncdirindia.org/display/wcd.aspx#:~:text=Burden%20of%20Cancer%20in%20India&text=Within%200childhood%20cancers%20(0%2D14,expected%20as%20compared%20to%20)
9. Mascarenhas, A. (2024, June 27). Lancet study says half of Indians physically unfit: What should you do to get off the mark now?”. *The Indian Express*. <https://indianexpress.com/article/health-wellness/indians-physically-unfit-lancet-study9415383/#:~:text=%E2%80%9CStart%20with%20physical%20activities%20you,sedentary%20lifestyle%2C%E2%80%9D%20she%20says.>
10. Ministry of Health and Family Welfare Government of India. (2021, September 22). National Family Health Survey (NFHS-5) 2019-21. https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf
11. National Cancer Institute (2021, September 9). Addressing the Challenges of Cancer Misinformation on Social Media. <https://www.cancer.gov/news-events/cancer-currents-blog/2021/cancer-misinformation-social-media>.
12. National Institute of Cancer Prevention and Research. (2021, October 11). What is Cancer. <https://www.cancer.gov/about-cancer/understanding/what-is-cancer>.
13. Nkanunye CC, Obiechina GO. Health Communication Strategies as Gateway to Effective Health Promotion and Well-being. *J Med Res Health Educ* 2017, Vol.1 No.3: 13.
14. Selvam, V., Ashok, D., and Pratheepkanth, P. (2019). Awareness and Perception of Health Issues Among Rural Women. *International Journal of Recent Technology and Engineering (IJRTE)*, Volume-7 Issue-5s, January 2019.
15. Shimon, P S. (2019, April 2). Committed to your Health. Herzliya Medical Center.
<https://hmcisrael.com/news/an-interview-with-a-leading-oncologist-in-the-field-of-breast-cancer>
16. Sharma, N., Deb, R., & Samtani, R. (2019, March 12). Level of endosulfan among women in Talwandi Sabo Block of Southern Punjab, India. <http://www.ijph.in/article.asp?issn=0019-557X;year=2019;volume=63;issue=1;spage=83;epage=85;aulast=Sharma>
17. The Federation of Indian Chambers of Commerce & Industry. (2017, September 21). Call for Action: Expanding cancer care for women in India.
<https://www.ficciflo.com/wp-content/uploads/2017/09/Expanding-cancer-care-for-women-in-India.pdf>
18. Vasudeva, Rashmi. (2018, October 1). Why early detection is key to deal with women's cancers. *The Hindu*. <https://www.thehindu.com/sci-tech/health/breast-cancer-awareness-month-more-reluctance-less-reluctance/article25094170.ece>
19. World Health Organization. (2024, April 8). Health and Well-Being.
<https://www.who.int/about/accountability/governance/constitution>.
20. World Health Organization. (2022, February 3). Cancer – Key facts.
<https://www.who.int/news-room/fact-sheets/detail/cancer>