AN ECONOMETRIC ANALYSIS OF HEALTH STATUS OF WOMEN CANCER PATIENTS IN COIMBATORE DISTRICT

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Abstract
      The health of Indian women is intrinsically linked to their status in society. Research on women's Health status has found that the contributions of Indian women make to families often are overlooked, and instead they are viewed as economic burdens. The connection between the health status of the individual (or the population as a whole) and consumption of medical services builds the link between "economics of health" and "economics of health care". Status of health shows the development of the society. Health status is influenced by different indicators like employment, income, educational attainment, social groups, level of awareness, accessibility to health care and availability of health services. Today, throughout the world women are the major victims of cancer disease. India is also not exception. In India the women health is largely neglected in general and this led to the lack of medical treatment for the women cancer patients. Existence of gender discrimination in providing medical facilities to the women is clearly apparent in India. In 2010 there were 5, 17,378 women cancer patients in India. On the same year the number of male cancer patients was 4,62,4085. Though, India made considerable progress in social, economic, cultural and political are as in recent decades, while, it lagged behind in improving women health, particularly the women cancer patients . In this study the researcher make an attempt to know the determinants of Health status of Women cancer patients in Coimbatore District at Micro level.
Keywords: Women Cancer, Types of Women Cancer, Health Status

Introduction
      Economic aspects of relationship between health status and productivity, financial aspects of health care services, economic decision making in health and medical care institutions, planning of health development and such other related aspects are the major areas covered under health economics. The connection between the health status of the individual (or the population as a whole) and consumption of medical services builds the link between "economics of health" and "economics of health care". Health care refers to any type of services provided by professionals or paraprofessionals with an impact on health status. Health care system is a formal

structure for a defined population, whose finance, management, scope and content is defined by laws and regulations. It provides for services to be delivered to people to contribute to their health…delivered in defined settings such as homes, educational institutions, workplaces, public places, communities, hospitals, clinics, et cetera.

The World Development Report (WDR) of 1993 views health as a basic human right and stresses the necessity of providing cost effective healthcare for the poor and that it can contribute towards alleviating poverty. Hence, understanding of health economics is essential for policy makers and for those guiding them. The scope of health economics includes relationship between health status and productivity, financial aspects of health care services, economic decision making in health and medical care institutions, planning of health development and such other related aspects. The distinguished features of health economics as a discipline are – health and medical care as economic goods, health as a private or a public goods, measurement of quality of healthcare system, stock of health issues, investment aspects of healthcare industry, loss due to ill health, burden of diseases, resource costs of different diseases, effects of health and medical care provision, planning of health and medical care, choice of technology in health care system, etc.

Economics of Health

There is a direct correlation between the "*Economics of Health*" and "*Economics of Healthcare*". The inter-connection between the health status of an individual (or the entire population) and usage of medical services builds the link between "*Economics of Health*" and "*Economics of Healthcare*". Health is a state of well-being enjoyed by an individual or population of a country at a point of time or over a period of time. Healthcare refers to all types of services rendered by professionals or para-professionals which have a bearing on the health status of an individual or entire population of a country. Healthcare system is a formal structure of heath service providing agencies, whose finance, management, scope and content is defined by laws and regulations. Such system provides for services to be delivered to people to contribute to their health … delivered in defined settings such as homes, educational institutions, workplaces, public places, communities, hospitals, clinics, etc.

The health of a population can itself influence economic progress. Healthcare produces primarily better health for the citizens of a country, who are productive human resource of an economy. Health programmes have therefore come to be seen as part of a comprehensive strategy aimed at improving the social and economic welfare of population. Thus, there is a need to design programmes which improve health services and the provision of other infrastructure such as water and sanitation and also the actions aimed at improving nutritional health most efficiently. People want to improve their health status to earn better living, so they expect good health care. The reason they want better health is presumably because of the desire to enjoy

life, in all its consumption and production aspects, to a fuller extent than would be the case with less health. It is extremely difficult to measure the specific contribution each activity makes to health.

Cancer- A Serious Disease

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Cancer is caused by external factors, such as tobacco, infectious organisms, and an unhealthy diet, and internal factors, such as inherited genetic mutations, hormones, and immune conditions. These factors may act together or in sequence to cause cancer. Ten or more years often pass between exposure to external factors and detectable cancer. Treatments include surgery, radiation, chemotherapy, hormone therapy, immune therapy, and targeted therapy (drugs that specifically interfere with cancer cell growth). The term cancer refers to a group of diseases which share similar characteristics. Cancer can affect all living cells in the body, at all ages and in both genders. The causation is multi-factorial and the disease process differs at different sites. Tobacco is the single most important identified risk factor for cancer. A host of other environmental exposures, certain infections as well as genetic predisposition plays an important role in carcinogenesis. Diagnostic work-up, treatment methods and outcome of treatment are not uniform for all cancers. Advanced technology is required in many situations and ongoing research initiatives might lead to better understanding of the disease and its control.

Non-communicable diseases such as cancers account for most of the global burden of disease (WHO, 2011). Cancer is one of the leading causes of adult deaths worldwide. In India, the International Agency for Research on Cancer estimated indirectly that about 635,000 people died from cancer in 2008, representing about eight per cent of all estimated global cancer deaths and about six per cent of all deaths in India. Cancer prevalence in India is estimated to be around 2.5 million, with over 800,000 new cases occurring each year. The absolute number of cancer deaths in India is projected to increase because of population growth, urbanization, industrialization, lifestyle changes and increasing life expectancy. World Health Organization (WHO) has estimated that the cancer deaths in India are projected to increase to 700,000 by 2017.

Women cancer in India

The health of Indian women is intrinsically linked to their status in society. Research on women's status has found that the contributions Indian women make to families often are overlooked, and instead they are viewed as economic burdens. There is a strong son preference in India, as sons are expected to care for parents as they age. This son preference, along with high dowry costs for daughters, sometimes results in the mistreatment of daughters. Further, Indian women have low levels of both education

and formal labor force participation. They typically have little autonomy, living under the control of first their fathers, then their husbands, and finally their sons. All of these factors exert a negative impact on the health status of Indian women. Poor health has repercussions not only for women but also their families.

Cancer affects individuals, their families, and the wider economy. The health of Indian women is intrinsically linked to their status in society. According to the National Cancer Institute (NCI) which is part of the US Department of Health and Human Services (USDHHS), every 13th new cancer patient in the world is an Indian and breast, cervical and oral cancers top the list in the country. Out of 12.5 lakh (1.25 million) new cancer patients each year in India, over seven lakh are women.

Globally, there are now more new cancer cases reported every year than there are new cases of HIV/AIDS and we need to mainstream cancer prevention and care. There is still much fear and superstition surrounding cancer and in most developing countries a diagnosis of cancer is perceived to be a death sentence just as it was with HIV in the early years of the HIV/AIDS epidemic. There will be a need for much education and awareness to make women come forward for screening and once at the health center there may be a need for child minding.

According to a study by the World Health Organization, one in 12 women in urban India will develop cancer in their lifetime. Approximately 40 per cent of new cases of cancer in India afflict women. In the past decade, breast cancer has overtaken cervical cancer as the most common cancer among women in Indian cities such as Mumbai and Delhi. Also, India has the highest rate of cervical cancer in the world. One in every 10 cancer deaths worldwide is in urban India. What's more alarming, 75-80 per cent of patients are in advanced stages of the disease at the time of diagnosis. Cancer represents a major cause of morbidity and mortality worldwide and a major public health concern (Globocan, 2012). While incidence of many cancers in India is lower than that of more developed nations, India's cancer burden is expected to double in the next 20 years from nearly one million new cases diagnosed in 2015 to 1.7million new diagnoses by 2035. This rise in incidence is predicted from many factors including increased population, increased life expectancy and government efforts to control communicable diseases.

Health Status issues

The difference between rural and urban indicators of health status and the wide interstate disparity in health status are well known. Clearly the urban rural differentials are substantial and range from childhood and go on increasing the gap as one grows up to 5 years. Sheer survival apart there is also we known under provision in rural areas in practically all social sector services. For the children growing up in rural areas the disparities naturally tend to get even worse when compounded by the widely practiced discrimination against women, starting with feticide of daughters.

In spite of overall achievement it is a mixed record of social development specially failing in involving people in imaginative ways. Even the averaged out good performance ides wide variations by social class or gender or region or State. The classes in many States have had to suffer the most due to lack of access or denial of access or social exclusion or all of them. This is clear from the fact that compared to the riches quintile, the poorest had 2.5 times more IMR and child mortality, TFR at double the rates and nearly 75 per cent malnutrition - particularly during the nineties.

Not only are the gaps between the better performing and other States wide but in some cases have been increasing during the nineties. Large differences also exist between districts within the same better performing State urban areas appear to have better health outcomes than rural areas although the figures may not fully reflect the situation in urban and peri-urban slums with large in migration with conditions comparable to rural pockets. It is estimated that urban slum population will grow at double the rate of urban population growth in the next few decades. India may have by 202 a total urban population of close to 600 million living in urban areas with an estimated 145 million living in slums in 2001. What should be a fair measure for assessing success in enhancing health status of population I any forecast on health care?

Methodology

Although studies have been conducted to assess Cancer and its risk factor burden in many regions of India, the data were not compiled together. Understanding this problem, the study planned to conduct the survey in Coimbatore city. This city has a multi-cultural society, most of the cosmopolitan nature. Its inhabitants are largely conservative and traditional, retaining their roots in their native villages. It is a Municipal Corporation as well as the District Headquarters. The city has numerous hospitals. Apart from the Government hospital, several multi-facility hospitals function in the city. The District Health Department is amongst the best in terms of implementing government-initiated health schemes. Also, several rare surgical procedures have taken place here. The city also has numerous homeopathic clinics run by Non-Governmental Organizations. The fast pace of industrialization, spiraling population and the increase in the health awareness have led to the growth of the healthcare industry in Coimbatore.

In order to fulfill all the objectives of the study, first getting permission from the Institutional Human ethics committee through the study protocol submission form of selected medical institutions with the consent of the respondents. With a view to have a thorough study and understand the Health Status of women respondents by taking Government Hospital and five Private hospital in Coimbatore City. In order to select representative Cancer among Women patients population receiving treatment in these hospitals, it was felt an empirical inquiry would be apt. Within each of the hospital, the women patients are selected based on Random Sampling Method An

Interview schedule – prepared for the purpose of data collection consisted of questions relating to socio – economic and demographic profile, health Status. Appropriate statistical tools have been used to drawn inferences from the data collected. Health status will be assessed by using Multinomial Logit (MNL) Model.

Review of Empirical Studies

Cancer has emerged as a major healthcare problem in India. The rising prevalence of cancer Disease poses a major clinical, economic and societal burden in India. There has been a rapid increase in the prevalence this disease, requirement of related health services and the cost of cancer disease management in India and worldwide. The academic literature on women cancer patients is uneven. The economic burden of disease is still a less researched area in the context of its complexities. There are a very few research study related to cancer among Women. Here an attempt is made to review a few studies of empirical Research work.

Ajay Mahal et al., (2013) assessed the burden of cancer on households' out-of-pocket health spending, non-medical consumption, workforce participation, and debt and asset sales using data from a nationally representative health and morbidity survey in India for 2004 of nearly 74 thousand households. Propensity scores were used to match households containing a member diagnosed with cancer (i.e. cancer-affected households) to households with similar socioeconomic and demographic characteristics (controls). the estimates are based on data from 1,645 households chosen through matching. Cancer-affected households experienced higher levels of outpatient visits and hospital admissions and increased out-of-pocket health expenditures per member, relative to controls. Cancer-affected households spent between Indian Rupees (INR) 66 and INR 85 more per member on healthcare over a 15-day reference period, than controls and additional expenditures (per member) incurred on inpatient care by cancer-affected households annually is equivalent to 36 per cent to 44 per cent of annual household expenditures of matched controls. Members without cancer in cancer-affected households used less health-care and spent less on healthcare. Overall, adult workforce participation rates were lower by between 2.4 and 3.2 percentage points compared to controls; whereas workforce participation rates among adult members without cancer were higher than in control households. Cancer-affected households also had significantly higher rates of borrowing and asset sales for financing outpatient care that were 3.3 per cent to 4.0 per cent higher compared to control households; and even higher for inpatient care.

Maiti *et al* (2015) applied The term "Head and Neck Cancer" (HNC) refers to a group of biologically similar cancers originating from the upper aerodigestive tract, including lip, oral cavity (mouth), nasal cavity, paranasal Sinuses, pharynx and larynx. Most head and neck cancers are squamous cell carcinomas (HNSCC), originating from the mucosal lining (epithelium) of these regions. Head and neck cancer is strongly

associated with certain environmental and life style risk factors, including tobacco smoking, alcohol consumption. Patients diagnostic data are collected from N.R.S. hospital, Kolkata and age group are divided into four groups. This statistical retrospective study indicates that conventional risk factors are the cause of primary head and neck malignancies. However cancer site wise patient numbers and cancer male to female ratio are different among different demographic areas demanding a state wise thorough analysis to get an overall HNC distribution picture of India. They study concludes that tobacco related products are indeed risk factors. Our age- wise analysis shows patients aged between 40-49 are worst affected by HNC malignancies. Death rate in HNC is highest in aged over 50 which indicate the effect of prolong exposure of tobacco products on death rate. The Study found higher male to female HNCA ratio than northern India, Bihar and north eastern India. However, our retrospective study demands a state wise analysis to get an overall HNCA distribution picture in India.

Yousif Abdullah *et al* (2015) investigated Cancer is a rapidly increasing problem in developing countries as statistics illustrate. Cases have risen from two million in 1985 to five million in 2000, and are projected to number 10 million in 2015. The aim of this study is to investigated the risk factor and causative factors and geographical distribution over Sudan States and relationship of incidence with some patient's customs and dietary habits like in Sudan. The results showed that the most common cancers are prostate cancer 3.3 per cent in males and 17.4 per cent in breast cancer in females. The geographical incidence of cancer showed high incidence (46 per cent) in Khartoum state according to RICK statistics and high incidence (64.1 per cent) in Gezira state according to NCI statistics. This study summarizes recent scientific evidence of environmental and occupational links to nearly 30 types of cancer. The study presents the state of the evidence on causal associations between environmental and occupational exposures and specific cancer types.

Pandey *et al*. (2015) assessed the major challenge observed in oncology service in Nepal is the high cost of the treatment and because of the lack of insurance, and a proper health policy, people have to bear all burden by themselves. Early diagnosis of cancer results in lower stages of the cancer, less intensive treatment and improved survival. To study the distribution of cases, past and future treatment seeking behaviour of diagnosed cancer cases and to assess the economic burden of cancer of cases treated at hospitals. The study was conducted at Bhaktapur Cancer Hospital, Nepal. The sampling technique for the study was Systematic random sampling of our patients of inpatients available during the study period. The data has been analyzed using mean and percentages, and krushkall Wallis test. There is no significant difference between the stages of Cancer in the cost of care on different aspects. There is no significant difference in the cost of care between the types of cancer. Treatment

seeking behaviour of person and the expenditure pattern which is very costly for the people suffering from cancer in developing countries like Nepal.

Jahn et al (2015) analysed A Breast Cancer Outcomes model was developed at the Oncotyrol research center to evaluate personalized testtreatmentstrategies in Austria. We applied a validated discrete-event-simulationmodel to a hypothetical cohort of 50 years old women over a lifetime horizon. The test-treatment strategies of interestwere defined using three-letter acronyms. The first letter indicates whether patients with a low risk according to AO were tested using ODX (Y yes, N no). The main outcomes were life-years gained,quality-adjusted life-years (QALYs), costs and cost effectiveness. Robustness of the results was tested in sensitivityanalyses. Based on our analyses, using ODX in addition to AO iseffective and cost effective in all women in Austria. The development of future genetic tests may require alternative oradditional test-treatment strategies to be evaluated.

Hung(2016) examine the cost effectiveness of treating major cancers compared with other major illnesses in Taiwan. The study collected data on 395,330 patients with cancer, 125,277 patients with end stage renal disease, and 50,481 patients under prolonged mechanical ventilation during 1998 to 2007. They were followed for 10e13 years to estimate lifetime survival functions using a semiparametric method. EuroQol five-dimension was used to measure the quality of life for 6189 cancer patients and 1401 patients with other illnesses. The mean utility values and healthcare costs reimbursed by the National Health Insurance were multiplied with the corresponding survival probabilities to estimate quality-adjusted life expectancies and lifetime costs, respectively. Lifetime risks of six out of nine cancer sites show an increased trend. Cancer care in Taiwan seemed cost effective compared with that of other illnesses, but prevention is necessary to make the National Health Insurance more sustainable.

Fenga et al (2016) analysed Breast cancer is a multi factorial disease and the most commonly diagnosed cancer in women. Traditional risk factors for breast cancer include reproductive status, genetic mutations, family history and lifestyle. However, increasing evidence has identified an association between breast cancer and occupational factors, including environmental stimuli. Epidemiological and experimental studies demonstrated that ionizing and non-ionizing radiation exposure, night-shift work, pesticides, polycyclic aromatic hydrocarbons and metals are defined environmental factors for breast cancer, particularly at young ages. However, the mechanisms by which occupational factors can promote breast cancer initiation and progression remains to be elucidated. Furthermore, the evaluation of occupational factors for breast cancer, particularly in the workplace, also remains to be explained. The review summarizes the occupational risk factors and the associated mechanisms involved in breast cancer development, in order to highlight new environmental exposures that could be correlated to breast cancer and to provide new insights for breast cancer prevention in the occupational settings. Furthermore, this review

suggests that there is a requirement to include, through multidisciplinary approaches, different occupational exposure risks among those associated with breast cancer development. Finally, the design of new epigenetic biomarkers may be useful to identify the workers that are more susceptible to develop breast cancer.

Liff *et al* (2016) discussed the Stage at diagnosis was examined for various malignancies identifiable through screening to determine whether rural-urban differences exist in Georgia. Data were obtained from a population-based cancer registry which registers all incident cancers among residents of metropolitan Atlanta and ten neighboring rural countries. Black and white patients with a first primary invasive malignancy newly diagnosed between 1978 and 1985 were included in this study. Residents of the rural area were twice as likely to have un staged cancers (18.3 per cent) as were urban residents (9.6 per cent). Among patients with known stage at diagnosis, rural patients tended to have more advanced disease than urban patients. The relative excess of non localized malignancies in rural Georgia was 21 per cent for whites and 37 per cent for blacks. The rural excess of non localized prostate cancer among blacks was especially pronounced. Differences in access to or utilization of early detection methods may contribute to the rural-urban differential in the extent of disease at diagnosis.

Measuring Self-assessed health

Two outcome measures of self-reported health status were used. Respondents were asked to rate their overall self perceived health based on a five-point Likert Scale: very bad, bad, good, very good and excellent. Respondents were asked to rate their level of limitations for two different sets of activities, physically demanding activities and moderately demanding activities. Self-perceived health status is consistently correlated with mortality and morbidity, and it has been widely used in studies examining the socioeconomic inequalities in health. However, the use of self-perceived health, which is influenced by factors such as having regular contact with health professionals and individual's attitudes and perceptions, could be a limitation in such a study. Studies have found that in certain low-income settings, the poor reported better health than the better off.

Poor health is associated with lower socioeconomic position regardless of the indicator. Disparities in education and low education were associated with poor health. Education is an inclusive measure of socioeconomic position because women are included regardless of their status in the labour market.21 Education can provide a woman with a broad set of cognitive resources, in addition to material gains and future financial security through better employment or marriage opportunities.

Table 1 Results of Multinomial Logistic Regression Analysis on Respondents' Overall Health Status

Explanatory Variables	Average vs. Very Poor		Poor vs. Very Poor	
	Beta Coeff.	Exp (B)	Beta Coeff.	Exp (B)
Age (*Ref: ≤ 39Years*)	--	1.000	--	1.000
40 – 49 Years	0.524	1.948*	0.106	1.111
50 Years and above	0.677	1.689*	0.206	1.414
Family Size (*Ref: 1-2 Members*)	**--**	**1.000**	**--**	**1.000**
3 Members	**0.346**	**1.413**	**-0.343**	**0.709**
4 + Members	**-0.123**	**0.884**	**-0.544**	**0.581+**
Religion (*Ref: Others*)	--	1.000	--	1.000
Christians	-0.421	0.642*	-0.495	0.610*
Educational Qualification (*Ref: Illiterates*)	--	1.000	--	1.000
Primary School	0.050	1.051	-0.827	0.438***
Middle School	0.193	1.212	-1.404	0.246***
Secondary School and above	-0.259	0.772	-2.337	0.097***
Occupation (*Ref: Not Working*)	--	1.000	--	1.000
Agricultural Activities	0.552	1.737+	1.335	3.800***
HHI / Jobs in Unorganised Sector	1.339	3.817***	0.757	2.132+
Monthly Income of the Family (in Rs.) (*Ref: ≤ 7000*)	--	1.000	--	1.000
7001 – 10000	0.151	1.163	-0.172	0.842
10001 and above	0.272	1.313	-0.265	0.767
N; -2 Log Likelihood	799.773			
Chi-square Value, (d.f.), p-value	101.027, (24), 0.000			
Cox and Snell Pseudo R-square (%)	14.3			
Nagelkerke Pseudo R-square (%)	16.9			
Note: +, * and * = t-test results are significant at 0.10, 0.05 and 0.001, respectively.**				

Determinants of Health Status of the Women Cancer Patients

In this section, an attempt is made to examine the major factors that are likely to affect the health status of women cancer patients with the application of multinomial logistic regression technique (model), since the health status variable measured here is in three categories viz., very poor, poor and average. Through this technique it is possible to examine the factors that determine the health status of the respondents (keeping as dependent variable) of those who are reported to be 'average' (a score of '2' is assigned) and 'poor' (a score of '1' is assigned) in comparison to those who stated their overall health status as 'very poor' (a score of '0' is assigned). The explanatory variables included in this model are selected based on theoretical understanding and their significance of association with health status through cross-tabular analysis presented earlier. These results look like two binary logistic regression analyses and thereby, the interpretation also has been done as in the case of binary logistic regression.

The results of multinomial regression analysis on health status of the women cancer patients are mostly in the expected direction (Table 1), except in the case of a few. Controlling for all the other variables in the model, it is pertinent to note that the odds of reporting health status as 'average' as well as 'poor' by the respondents are significantly higher (at different levels), as against to those reported as 'very poor', when they are engaged in occupations related to household industry / jobs in unorganized sector (OR = 3.817 and 1.737; p<0.001 and p<0.10, respectively) as well as

in agricultural activities (OR = 2.132 and 3.800; p<0.001 and p<0.10, respectively) than those who are not working / homemakers. Better health is associated with being engaged in paid employment, especially in nonwage labour activities. Because we used cross-sectional data, the direction of the relationship between employment and health cannot be ascertained. On the one hand there could be a ''healthy worker effect''that is, healthy women volunteer themselves into the workforce. On the other hand, employment can lead to positive effects on women's health by enhancing their autonomy and bargaining power, providing access to financial and social resources, producing greater emotional satisfaction, improving their social status and increasing the perceived value of women by household members and society Another notable finding, is that respondents who are little older in age (40.49 years and 50 years & above) have exhibited higher odds of reporting their health status as 'average' and 'poor' (OR = 1.948 & 1.689 and 1.111 and 1.414, respectively) as against to those who reported their health status as 'poor'. But the t-test results have turned out as moderately significant only in the case of those who mentioned their health status as 'average' against 'very poor' (p<0.05 and p<0.05, respectively). Another eye-catching finding here is that women cancer patients who are adhering to Christianity have stated their health status as 'average' as well as 'poor' is lower (OR = 0.642 and 0.610, respectively) as compared to those who felt to be in 'very poor' health status. The t-test results also turned out as moderately significant in both these regard (p<0.05 in each case). Next to these, though the likelihood of reporting 'average vs. very poor' as well as 'poor vs. very poor' health status is lower (except in the case of 3 member family size among those who reported 'average vs. very poor') among those whose are part of families with 3 and 4 more members (OR = 1.413 & 0.884 and 0.709 and 0.581) than those who are with 1-2 member(s) as a family, the t-test results turned out as less significant only in the case of those who reported their health status as 'poor vs. very poor' and that too among those who belonged to families that have 4 or more no. of members.

Among the other factors, findings related to educational status and monthly income of the family are noteworthy, but appear to be diverse. The odds of reporting 'poor' health status against 'very poor' health status are significantly lower among those respondents who belonged to different levels of education under study as against illiterates (OR = 0.438; 0.246 and 0.097; p<0.001 in each case). On the other hand, while the odds of stating the health status as 'average vs. very poor' are little higher among those who are educated up to primary school and middle school (OR = 1.051 and 1.213, respectively), such odds are noted to be lower among those who are educated up to secondary school and above; but t-test results in all these regard didn't turn out as statistically significant. Likewise, while the odds of reporting health status as 'poor' (as against 'very poor') are lower among those who belonged to the families of moderate and higher income brackets (Rs. 70001 – 10000 and Rs. 10001 &

above; OR = 0.842 and 0.767) as against to those who belonged to lower monthly family income bracket (Rs. 7000 or less), the corresponding odds are observed to be higher among those who stated their health status as 'average' as against 'very poor' (OR = 1.163 and 1.213, respectively). However, the t-test results in all these regard didn't turned out statistically significant.

Concluding Observation

Women's empowerment is hindered by limited autonomy in many areas that has a strong bearing on development. Their institutionalised incapacity owing to low levels of literacy, limited exposure to mass media and access to money and restricted mobility results in limited areas of competence and control (for instance, cooking). The family is the primary, if not the only locus for them. However, even in the household domain, women's participation is highly gendered. Non-communicable diseases including cancer are emerging as important public health problems in India. The major risk factors for these diseases are tobacco, dietary habits, inadequate physical activity, alcohol consumption and infections due to viruses. The greatest impact to reduce the burden of cancer comes from primary prevention. Definitely, cancer is a very dangerous and serious curse for our society. In spite of a good development of Science and Technology, the complete treatment of this disease is not available. We should be very careful about the sources of cancer and the preventive and curable measures. We the people scientists, academicians, clinicians and NGOs; along with Government; should come forward for awareness campaigns to get rid of this disease. People are not aware about the role of modernization in cancer genesis and, hence, we should stress on this issue during the awareness campaigns. Briefly, this is the urgent need of today for providing healthy life to our society.

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