

## REVIEW ARTICLE

**Personal and social issues involved in cancer development**

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**Abstract**

Cancer is termed as a group of diseases and caused due to several genetic and environmental factors. Personal and social environments mostly decide the fate of cancer development in the community. With the advancement in cancer research, new therapeutic drugs and instruments have been developed to treat and cure cancer at an early stage of its development. However, less priority was given on the personal and social issues. Thus, the present review discusses the role of personal and social issues involved in the development of cancer.

**Key Words**

Cancer; Society; Public awareness; Public policy

**Introduction**

Currently, only about 5%–10% of cancers are known to be due to inherited genetic abnormalities. The remaining 90% of cancers is attributable to lifestyle factors (1). Lifestyles emanate from cultural beliefs, values and practices (2). Personal and social environments (cultural attributes, preferences, traditions, socio-economic status, etc.) play a major role in deciding the overall lifestyle and the exposure status of an individual (3,4). It is interesting to know that the worldwide occurrence rates of cancers are about the same, but the kinds of cancers varies significantly accordingly to the differences in personal and social environments. For example, immigrant Asian women's, after one generation in U.S., were found to have higher incidences of breast cancer (due to change in lifestyle) compared to the non-immigrant Asian women's (5). Thus, occurrence and development of cancer is thought to be initiated by the complex interchange of socio-economic

status, public policies and culture/traditions (6). Cancer patients are mostly identified with some of the critical problems in their social/personal life. These includes, a) lifestyle/culture b) homely environment, c) financial status d) employment issues, e) legitimate matters, f) personal and social networks, g) sexuality and self-esteem, h) treatment and welfare facilities and i) entertainment. Thus, it is highly important to stratify the origin of these problems for understanding the onset and development of cancer.

**Cultural differences:** In Western countries, the types of cancer with the highest death rate are colon, breast and prostate cancer (7). However, the conditions are quite different in Asian countries. For example, incidence rate of breast cancer is five times lower in Japan compared to the western countries. Whereas, mortality rate of prostate cancer is ten times low in Asian countries compared to the western countries (8). In India, prevalence of prostate cancer is twenty times less compared to the

Western countries. On the contrary, the incidences of stomach, esophageal and liver cancers are quite common in Asian countries compared to the Western countries (8). These inconsistencies can be attributed to the cultural differences (diet and lifestyles) among these populations. The standard western diet contains high amount of saturated fat, carbohydrates, red meat, coffee and sugar which can contribute to obesity and other heart diseases (9). It has also been noticed that the regular consumption of red/processed meat is associated with high incidences of pancreatic/colon/breast cancer. Consumption of coffee was found to lower the hepatic cancer.

Asian countries use high amount of anti-inflammatory spices (e.g. curcuma etc.), vegetables and sea food which protects them from many types of cancers (10). But at the same time, people from some of the Asian countries like India do not consume enough amount of calcium and thus they are more prone to osteoporosis and other related diseases. The ideal anticancer dietary preferences includes high consumption of fruits, milk, eggs, fish, sprouted grains, vegetables and low consumption of red meat, refined sugar, animal fat, deep fried products. Despite from this fact, dietary patterns are mostly observed to be dependent on the production, availability and preferences of commodities in that particular region.

Disparities in tobacco and alcohol consumption are closely linked with the cultural differences. Pervasive use of alcohol in religious and social gatherings had increased the prevalence of alcoholism in the modern societies (11). In a true sense, alcohol consumption was traditionally a part of celebration of success and offering respect to the companions. In addition, alcohol was consumed with enough antioxidants which could neutralize reactive oxygen species generated due to excess amount of alcohol consumption. On the contrary, in the modern culture, alcohol and tobacco consumption has become a part of social status and style. People are not much concerned about the supplementary diet that has to be taken to neutralize the toxic effect of alcohol.

**Barriers to asking questions:** Sometimes the physicians/clinicians may encounter problems in asking the personal questions (especially to migrant population) on patient's health and family due to cultural barriers (12). The recipient countries are not always comfortable in treating migrant population

because no genetic information is available and in many cases there is lack of integration between the different cultural approaches of migrant and the host country. In western countries, for instance, the ethnic medicine is suspiciously regarded. Only recently ethnic herbal medicines, common in many eastern countries, have attracted the interest of researchers.

**Poor awareness:** Cancer awareness refers to the ability of acquiring, analysing and understanding the basic information of disease, prevention and treatment for better health decisions. Poor health awareness is closely associated with higher incidences of cancer development and mortalities. Different communities may have different speculations towards the causes of cancer due to their inherent cultural beliefs. Still, many of the poorly educated communities (mostly in undeveloped countries) believe physical trauma/sins of the past as the cause of the cancer. Majority of the people, even in developed countries, visit clinicians after the appearance of the symptoms and not for the routine preventive health check-up. This may be due to the poor awareness of preventive and screening tests among the common mass. In addition, preventive and screening tests (e.g., mammograms, pap tests etc.) are not commonly accessible in most of the developed and developing countries. Surprisingly, mammography was a comparably a new phenomenon in a South American country (Chile) till 2005 (13). On the other hand, use of Pap tests in cancer screening programs was a common practice in Chile.

**Fear and lack of knowledge:** Some cultural communities label cancer as a death sentence or a contagious disease. Sometimes, non-cancerous tumours/lesions are regarded as cancerous (14,15). These superstitions arise mainly due to the poor cancer awareness and superficial cultural beliefs. This can disseminate misleading information about the realistic features of cancer and can develop lot of anxiety in the suspected individuals. Anxiety and refusal are the two most common feelings associated with the possibility of being diagnosed with the deadly disease, cancer. Anxieties may be related to sexual/personal/social relationships, responsibilities, death etc. These sentiments together with the other critical aspects (cost, accessibility to healthcare services, busy schedule etc.), may lead the individuals to delay clinical treatment/early diagnosis.

**Misinformation from family and friends:**

Cumulative conclusion to health related issues is a common feature in most of the migrant/low socio economic families (16). In these circumstances, individual mostly rely on the advice (which may not be always correct) given by the members of the community and not by the clinicians.

**Financial issues:** Financial issue is the major factor found to be associated with the under-utilization of preventive/post-preventive health care services (17). This is quite common in the low socio economic communities wherein majority of the earnings is used to run the livelihood. These individuals (mostly daily wages) find it hard to manage time for the health care services due to their busy work schedule and fear of losing income/job. At present, many of the uninsured/underinsured patients in the underdeveloped and developing countries are in survival mode.

**Emotional support:** Emotional support plays a vital role in the overall recovery of cancer patient. Cancer patient often carry lot of psychological stress due to adverse side effects of the therapeutic regime and lack of emotional support from the society (18). Emotional support for the cancer patient/family often goes unmet. In this regards, palliative care offers good emotional and mental support to a cancer patient. It has also been seen that the head of family (especially from the low socioeconomic groups) is afraid of being diagnosed with cancer as this can make him/her appear weak in front of the other members and can increase instability in the family. These may initiate the sentiments of mental stress and loneliness.

**Public policies:** There are hundreds of well recognized organizations all over the world who are continuously working on cancer prevention, treatment/research and funding programs (19,20). But still we are facing significant problems with the effective implementation these programs at societal level. This may be due to the inconsistencies in the current public policies related to cancer management. There are potential areas wherein the political policies should be refined for the effective prevention and treatment of cancer. This can be achieved by the establishing the proper coordination among the legislators, bureaucrats and the interest groups. In the past decade, considerable efforts have been made to understand the biology of cancer but its psychosocial dimensions have not been well defined. Success or failure of the cancer screening

programs mostly depends on the psychosocial dimensions.

**Aims & Objectives**

Personal and social issues contribute significantly to the development of cancer. Current review discuss about different personal and social issues and their involvement in the development of cancer.

**Conclusion**

With the advancement in cancer research high priority was given to the development of therapeutic drugs and infrastructure for the effective treatment of cancer. However, psychosocial dimensions of cancer care were least prioritized in oncology due to inadequacies in their defined measurements. Social issues in oncology are difficult to address due to their wide range and variability. Integrating assessment of social problems and the futuristic directions, addressed in this review, in the regular anticancer research may results in an improvement in the physical and mental status of cancer patients

**Recommendation**

Several personal and social issues are closely linked with the possibility of developing cancer. These aspects demand an exhaustive analysis of the effect of personal and social parameters on the onset and development of cancer.

We may need to concentrate on the following important areas in order to address the problems related to the personal and social issues in cancer prevention and treatment.

- a) Refinements in existing public policies and/or new public policies those are more convenient to common mass, health planners, hospital administrators, insurance industry, and health care providers.
- b) Regulatory norms should be strengthen against the tobacco products and xenobiotic compounds causing cancer.
- c) Research studies to elucidate the financial cost of cancer disparities. In particular, national financial estimates for cancer modalities should be made available (before the fiscal year) to the policy makers for satisfactory budgetary allocations in this domain.
- d) Sufficient budgetary allocations should be made by policy makers to run free national/international preventive cancer screening programs. It is urgently needed in underdeveloped and developing countries

wherein treatment cost is the main barrier in cancer therapeutics. In this regards, financial support from the international communities can change the present scenario. This will improve public attention to the cancer screening programs and facilitate the effective utilization of the existing modalities for early detection of cancer.

- e) Effective utilization of medical interpreting services (telephonic conversations, etc) to eradicate language barriers, especially in migrating population.
- f) New funding opportunities (public schemes, insurance policies etc.) for financially deprived patients to facilitate better and timely diagnostic and therapeutic treatments.
- g) Refinements in the public policies through the proper characterization of social dilemma may help in improving people participation in cancer screening programs and other health care services. There is a need to develop analytical software's and prediction models which can assess inherent problems associated with the onset and development of cancer. Solutions to the inherent problems can then be a part of therapeutic modality. For example, cultural competence health practitioner assessment (CCHPA) (21) can be used as a starting tool to generate social problems inventory.
- h) Better understanding of the unequal burden and unequal treatment modalities of cancer. This will help in understanding the high rate of cancer mortalities in context to geographic location, cultural environment, health care services and socioeconomic status.
- i) Societal cancer awareness programs to provide education on cancer confronting skills, funding opportunities, sentimental barriers etc.

### Relevance of the study

Psychosocial dimensions of cancer care have utmost importance in order to understand the root cause of cancer development.

### Authors Contribution

PN: Concept and design and writing, AS, PM: Editing and final formatting; AB, SSD and KK: Final critical revising of the manuscript.

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