

Research Article

Quality of Life Among Cancer Survivors in South Asia

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Abstract

Background: Cancer survivorship has increased in South Asia, negatively impacting their health and wellbeing in terms of mental, social, emotional, physical, and economic well-being. Several factors, including sociodemographic, clinical, treatment-related, behavioral, and psychosocial aspects, all have a substantial effect on of QOL of cancer survivors. Our aim is to determine QOL among cancer survivors in South Asia, challenges faced by cancer survivors, factors enhancing and deteriorating QOL, and measures that can be taken to improve QOL.

Method: We conducted a systematic literature review and systematically assessed the literature to identify relevant research about South Asian cancer survivors' quality of life in English only. We searched two databases (Google Scholar, and PubMed), in each of which we searched and selected all the articles and research having the keywords: Cancer survivors, quality of life, and South Asia. After reading the abstract and titles of the study, we read full articles and retrieved data according to PRISMA. The data extracted was compiled through Microsoft Excel. No meta-analysis and quantitative syntheses were done.

Results: A total of 20 articles were identified. Of which 60% showed a negative effect on various domains of QOL of cancer survivors in South Asian countries. Most common factors identified were chemotherapy and effects of low of self-esteem, sexual dysfunction, limb impairment and physical restriction. Only 10% of reviewed articles (2 articles) did not show a decline in QOL in cancer survivors.

Conclusion: It has been found that there is a general detrimental influence on the quality living of cancer sufferers in this part of the world. Given the grave consequences, awareness must be raised to combat such dire circumstances and alleviate the overall quality care.

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Introduction

Cancer has become a curable disease for some and a chronic sickness for others because of breakthroughs in early identification and treatment; people with a history of cancer are now referred to as cancer survivors rather than cancer victims. South Asia has seen an increase in cancer survivors, which has had a severe influence on their QOL in terms of physical, social, mental, economic and emotional, well-being. 25% of the world's population inhabits South Asia, (encompassing Bangladesh, India and Sri Lanka), which

reported frequency of cancer and mortality rates in a range seen between 88.1-105.7 and 51.0-79.1 respectively¹ Several factors, including sociodemographic, clinical, treatment-related, behavioral, and psychosocial aspects, all have an influence on cancer survivors' Quality of Life (QOL). Nausea, vomiting, alopecia, exhaustion, thrombocytopenia, dyspnea, sleeplessness, and mental symptoms (poor mood, loss of appetite, concerns, dread, restlessness) are all side effects of chemotherapy.² A few South Asian studies predict scores of psychological disturbances to be 12-64% and 2-70%, for anxiety and depression respectively.[1] The key issues impeding cancer patients' early diagnosis and QOL include limited access to healthcare facilities, a lesser number of experienced oncologists, and a lack of diagnostic technology. According to another study, breast cancer survivors suffer from long-term arm/shoulder difficulties known as ASPs (lymphedema,



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restricted shoulder mobility, and arm/shoulder discomfort).³ Another study examining the economic burden of cancer survivors found that the expense of managing victims of oral cancer in Sri Lanka was specifically increased compared to mean per capita income 8un (PCA) and GDP. It was seen to have a bleak impact on the national medical setup. This has a negative influence on the healthcare system as well as individual families, as well as the national economy. The majority of patients impacted by this deadly disease come from low-income homes, putting a financial hardship on their families. Early detection can drastically minimize the cost of OCA management.⁴ According to one study, lung cancer survivors endure both pulmonary limits and long-term symptoms, particularly dyspnea, pain, fatigue, and emotional distress, as well as decreased QOL after hospital discharge.⁵ This indicates the critical value of providing supporting care for a long duration. Moreover, Traditional and conventional medicine (T&CM) is frequently used in a variety of cultural contexts, and throughout time, cancer patients' acceptance of it has grown. The growing popularity of T&CM may be a result of the unmet demands of cancer patients, who typically exhibit physical, emotional, and quality of life concerns. The Nepalese have been seen to administer traditional remedies throughout generations which holds a significant value in their religious and cultural beliefs. In Nepal, more than half of patients (55.7%) with chronic illnesses used alternative therapies, such as Ayurveda.⁶ A different study indicated several associated factors impacting the QOL of the population victim of cranial tumors. Such factors covered a vast range of aspects, such as consequential disorders and/or diseases of cranial tumors, associated psychical factors (mental illness were seen to impart a greater added effect), the utilization of urinary catheter in medical set-ups, socioeconomic factors such as household earnings and communal support.⁷ Also, the QOL of women in Pakistan who have survived breast cancer is negatively impacted by persistent post-surgical discomfort, notably on their physical wellbeing. In order to manage pain and preserve QOL in oncology, after-care for breast cancer patients following the completion of treatment require appropriate pain-relief medications.⁸ The primary findings in the referred papers were on how specific disease affects the QOL as well as the physical, mental, and social elements were targeted while there is absence of understanding regarding how the QOL of cancer survivors differ in Urban and rural regions. While little is known about how the QOL of victims of cancer varies in urban and rural settings, the main findings of the included studies concentrated on how a specific cancer affects the physical, psychological, and social aspects of life. It may be possible to improve treatment and overall survival by evaluating QOL in cancer survivors. The goal of our review is to compare the QOL of

cancer survivors who have had various medical treatments and therapies for various types of cancer that are prevalent in South Asia. The main objectives of our study are to identify the challenges experienced by cancer survivors in various South Asian communities and to assess the quality of life (QOL) of varied cancer survivors. To Identify the elements that improve and degrade QOL and the actions that can be implemented to improve QOL in various South Asian nations also an enhancement in the proportion of people whose quality of life is improved by successful medical interventions like chemotherapy and radiation therapy and also to improve the types of medical and social strategies that can be used to do so. While not much study has been conducted about how the QOL of survivors varies in urban and rural settings, the main findings of the included studies concentrated on how a specific cancer affects the physical, psychological, and social aspects of life. It may be possible to improve treatment and overall survival by evaluating QOL in cancer survivors. The goal we have with our review is to study QOL of cancer survivors who have had various medical treatments and therapies for various types of cancer that are prevalent in South Asia. The main objectives of our study are to identify the challenges experienced by cancer survivors in various South Asian communities to measure the QOL of different cancer survivors, to Identify the elements that improve and degrade QOL and, the actions that can be implemented to improve QOL in various South Asian nations also enhancement in the proportion of people whose quality of life is improved by successful medical interventions like chemotherapy and radiation therapy and also to improve the types of medical and social strategies that can be used to do so. Moreover, to estimate the impact of cognitive behavior therapy on the percentage of the general population who experience depression and anxiety.

The Studies selected included survivors of any type of cancer who are in any phase of their treatment whether it is from the phase of diagnosis to receiving chemotherapy or post treatment. The reports were collected only on patients from the South-Asian countries. The included articles are those that were published in the English language, in time duration between January 2017 to June 2023. The studies were selected in both its abstract based and full text form. Any study that included cohort, review, and cross-sectional is included in our study.

Any report that studied about how the QOL and mental health of the family members or caretakers of the cancer patients was affected were excluded. Any study that discussed the effect of a certain new treatment regimen that effected the QOL of cancer survivor and any report that studied the effect of co-morbidities on the QOL of cancer survivors were excluded as well.

All 5 authors separately filtered through databases such as Google Scholar and pubmed based on their titles and abstracts in the first stage of selection. 1 author then removed the duplicates. In the second phase, the selected articles were then reviewed for full text by all authors. Using the standard PRISMA guidelines 2020, 1 author then gathered data from the selected articles

Two of the authors extorted data on the following features of the included studies: (eg author, country and year of publication) and effects on QOL (e.g how QOL of cancer survivors is affected). For data extraction and synthesis, we use Microsoft word software. Our systematic review is according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines 2020.

Results

The search method produced 5516 results using the databases: google scholar and pubmed. After title and abstract screening, duplicate articles, 110 studies were separated for full text screening. 94 studies were removed for 1) including countries other than South Asian countries 2) focused on the comorbidities that effected the various domains of QOL. Finally, 16 articles fulfilled the criteria for

inclusion and were used in our systematic review. The flow-chart is given in Fig.1

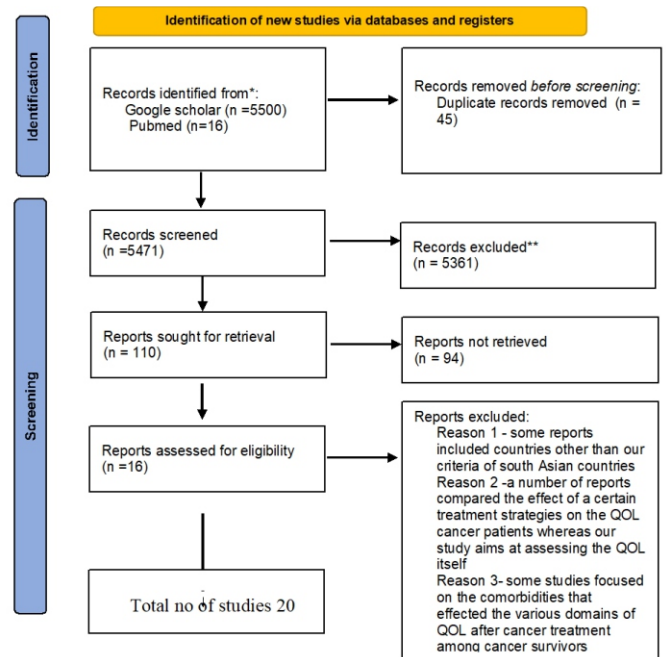


Figure 1: Prisma flow chart

Table 1:

Sr. no	Title	Author/ year/ref erence	Country	Type of study	Results	Effect on QOL
1	A descriptive study on prevalence of arm/shoulder problems and its impact on quality of life in breast cancer survivors	Jariwala et al 2021 ^[3]	India	Descriptive study	A total of 212 Breast cancer survivors study shows lymphedema, ROM, and arm/shoulder pain, the highest score is of limb pain.	There was a negative effect on QOL
2	A clinical trial of cognitive behavior therapy for psychiatric comorbidity and quality of life with Cancer Patients during Chemotherapy (CPdC)	Abbas Q. et al 2022 ^[2]	Pakistan	Clinical trial	The results show significant deteriorations of self-esteem, increased risk and findings of depression, and anxiety during chemotherapy.	Psychiatric symptoms were treated with remarkable ease and effectiveness
3	High anxiety and depression scores and mental health service use among South Asian advanced cancer patients: A multi-country study	Teo I. et al 2021 ^[1]	South Asian countries	Cross sectional	The sample indicated a rise in threshold for depression and anxiety overall and were convinced to seek consultation.	Negative effect on mental health was seen.
4	Experiences of cervical cancer survivors in Chitwan, Nepal: A qualitative study	Shrestha G. et al 2020 ^[9]	Nepal	Qualitative study	The majority of individuals had little understanding about cervical cancer or the agent that causes it, underwent fewer screenings for the disease, and didn't get healthcare despite having ongoing symptoms before being diagnosed.	Poor quality of life due to lack of awareness and knowledge about the disease and it's screening.
5	Quality of life in NSCLC survivors, multicenter cross-sectional study	Hechtner M. et al 2019 ^[5]		Multicenter cross sectional study	Survivors of lung cancer had worst QOL. Mental distress was the significant cause of decreased QOL.	Survivors of lung cancer encounter movement limitations and reduced mental health.

6	Perspectives of Afghan refugee mothers on the experience of caring for a child with cancer: a qualitative analysis	Nikfarid L. et al 2020 ^[10]	Afghanistan	Qualitative study	Customized care plans for mothers are needed as they were unable to understand and look after their child suffering from cancer.	The mothers of the children were unable to cope emotionally, physically and mentally.
7	Changes in quality of life following initial treatment of oesophageal carcinoma: a cohort study from Sri Lanka	Ayeshwari I. et al 2018 ^[11]	Sri Lanka	Cohort study	The scales showed reduced QOL on diagnosis which got worsened post initial treatment.	Many dimensions of QOL were decreased in esophageal cancer treatment after primary treatment.
8	A systematic review of barriers and enablers to South Asian women's attendance for asymptomatic screening of breast and cervical cancers in emigrant countries	de Cuevas R. et al 2022 ^[12]	South Asia	Systematic review	South Asian women generally had lower rates of cancer screening, poor knowledge of cancer which is essential for preventing and treating cancer on time.	Low screening rates in South Asian women
9	Relational spirituality and quality of life 2007 to 2017: an integrative research review	Counted V. et al 2018 ^[13]	-	Integrative research review	This study suggests that religious or spiritual factors may have a beneficial impact on a person's wellbeing.	religious or spiritual practices (RS) correlated with higher QOL.
10	Traditional and complementary medicine use among cancer patients in Nepal: a cross-sectional survey	Choi S. et al 2022 ^[6]	Nepal	Cross sectional study	Among the 908 participants, Ayurveda, which was used by 46.5% of the participants, followed by yoga, which was used by 32.4% of the participants.	Negative impact on QOL
11	An empirical study on quality of life and related factors of Pakistani breast cancer survivors	Azam M. et al 2021 ^[14]	Pakistan	cross-sectional and analytical study	Survivors in the countryside had an overall better emotional and physical wellbeing compared to those in the city. Survivors of the ages between 21 to 40 were seen to be more active physically compared to those in the age range of 40 to 50 and with family history who were seen to have better emotional wellbeing instead.	Many psychiatric, physical and social difficulties were experienced by female BC survivors.
12	Health-related quality of life and psychological distress among cancer survivors in Southeast Asia: results from a longitudinal study in a low- and middle-income country	Kimman M. et al 2017 ^[15]	Malaysia	Cross sectional longitudinal study	The standard scale used to assess QOL showed an overall 66.2 % score.	-Moderate level of Qol with a relatively good level of overall health status --there was a hig level of prevalence of depression among survivors after one year
13	Erectile dysfunction in male lymphoma survivors in a south-asian country	Leong Y. C. et al 2022 ^[16]	South Asian country	Cross-sectional study	The main element that had a correlation with ED was age. Older patients were seen to have worse ED.	ED had a high incidence in survivors of lymphoma cancers which caused lack of coitus.
14	Persistent post-surgical pain following breast cancer surgery	Siddiqui A. et al 2021 ^[17]	Pakistan	An observational study in tertiary care hospital	21.7% of patients suffered from continuous pain after the operation for 3 months whereas 14.2% experienced it for until half a year.	Several patients suffered from continuous pain after the treatment.
15	Quality of Life and its associated factors amongst Patients with Brain Tumors at a Tertiary Care Hospital in Pakistan:	Zahid N. et al 2021 ^[7]	Pakistan	An Analytical Cross-Sectional Study	Among values of the five functioning assessments, the biggest score was for pain, decrease in appetite came second followed by insomnia, financial difficulties. The worst were headache and weakness.	QOL got better (75.73%).
16	Examining the quality of life of patients living with breast cancer in Southern Sri Lanka	Eranthi. Et al 2022 ^[18]	Southern Sri Lanka	Cross sectional	Social life and circle was found to be affected significantly whereas physical, psychological and emotional aspects of QOL were adequate.	Support and encouragement from social relationships including friends and family lowered the QOL of BC patients.

Results

Total 16 studies were identified; 69% (11 studies) indicated the negative effect of QOL in cancer survivors of South Asian countries. Only 6 % of reviewed articles (1 articles) did not show a decline in QOL in survivors of cancer. The rest of the 13% of articles (2 articles) focused on various factors that alter QOL in cancer survivors. From these only 1 article focused on how chemotherapy lowers Qol in cancer survivors by causing deteriorations of self-esteem, increased risk and findings of depression, and anxiety during chemotherapy. Other factors such as social support and reassurance from family members and friends serves to ameliorate the QOL of breast cancer survivors in 6% of the studies (1 article). Moreover, 6% of articles (1 article) also concluded poor quality of life due to insufficient awareness about the disease and it’s screening in South Asian countries. There was a significant pattern indicating older ages had an overall worse QOL in cancer survivors as compared to other age groups.

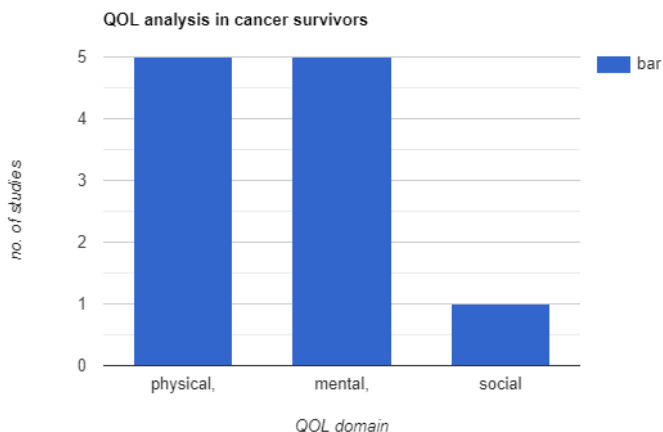


Figure 2: QOL analysis in cancer survivors

Thorough analysis showed 31% of articles (5 articles) were focused on how physical health is affected in cancer survivors of which 6% (1 articles) found limb impairment and physical restriction due to post-surgical pain in breast cancer patients. Chemotherapy also was seen to play an extensive role in physical restrictions in cancer survivors. In addition, the victims from the age group of 21 to 40 years showed superior physical fitness than cancer survivors between the age range of 40 –50 years. In 6% of studies (1 article) it was also seen that there was no significant impact on the Physical Health aspect of QOL in cancer survivors.

It was observed that mental health was the greatest impacted factor of QOL in cancer survivors, with 31% of the articles (5 articles) focused on how cancer survivors suffer from anxiety, depression and other forms of mental distress. Furthermore, 13% of the studies (2 articles) concluded how lung cancer survivors had the lowest mental health aspect of QOL. Chemotherapy was concluded to have the largest impact on

self-esteem, and increased risks and findings of depression. Older women from age 41-50 years were found to have an overall better mental health compared to breast cancer survivors from age groups 21–40 years. Female who were unemployed had bad QOL due to social discrimination in breast cancer survivors.

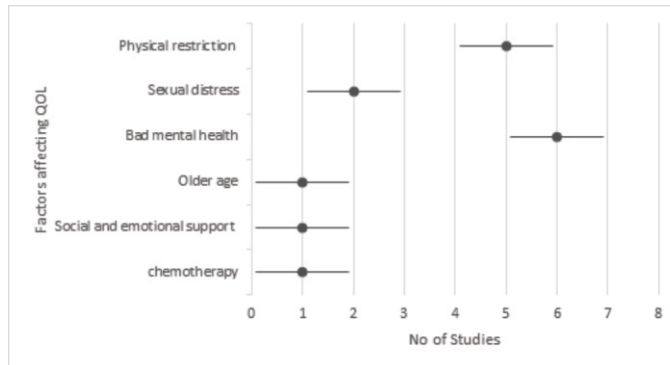


Figure 3. Forest Plot (x-axis No of studies, y-axis Factors affecting QOL)

Review of various studies indicated 6% of cases (1 article) of cancer survivors were found to undergo various challenges, of which 5 % of the total (1 article) showed lymphoma survivors suffering from erectile dysfunction and absence of sexual activity. Another study concluded decreased social relationships in breast cancer survivors and social support from family was thought to play a significant influence in enhancing QOL in survivors of cancer.

Discussion

The systematic review findings reveal that the QOL of victims of cancer in South Asian countries is negatively impacted across various domains. Mental health is a critical aspect when evaluating the QOL of these survivors, as their journey involves both physical challenges and significant psychological distress. In South Asia, cultural factors play a substantial role in how mental health issues are perceived and discussed, often leading to reluctance to seek professional help, particularly in countries like India and Pakistan.¹⁹ This stigma around mental health also affects cancer survivorship, diminishing overall life quality. In contrast, Western European and North American nations, where mental health conversations are more open, tend to have stronger support systems.²⁰

Additionally, the scarcity of easily accessible psychological support services in South Asia further complicates the maintenance of cancer survivors' mental health. High-income countries like the United States and Canada often incorporate mental health assessments and referrals into survivorship care plans, which positively impacts well-being. However, such integrated approaches are less common in South Asia due to resource limitations. Financial strains, driven by inade-

quate insurance coverage and high out-of-pocket costs, significantly contribute to anxiety and despair among cancer survivors in South Asia.²¹ Conversely, countries like Germany and Australia, with robust healthcare systems and insurance coverage, alleviate these financial pressures.

Cultural norms, limited support services, and financial constraints collectively contribute to the mental health challenges faced by cancer survivors in South Asia.²² Learning from nations with more comprehensive support networks and reduced stigma can inform policy and practice in South Asia, ultimately enhancing the QOL of victims of cancer in the region.

The social health domain is profoundly affected by cancer survivors, and effective strategies should be implemented to mitigate these effects. A study found out that many females who underwent surgery for breast cancer developed low esteem issues due to body image which significantly affected their sexual health.²³ Extensive treatment for cancer and advanced stage correlated with a decrease in the number of employees returning to work and higher odds of unemployment according to a study based in the United States. Lower work productivity was also identified in brain and breast cancer patients.²⁴

Neurosurgeons identified barriers to discussing sexual health, including patients not spontaneously expressing sexual problems, inadequate training or knowledge, and time constraints.²⁵ Intervention programs can be designed to enhance self-compassion in patients, provide awareness and guidance on sexual issues resulting from disfigurement, and foster hope and acceptance.²³

Most cancer survivors experience poor physical health and a low quality of life, with specific cancer types like cervical, colorectal, and hematogenous survivors reporting even worse physical QOL scores.²⁶ However, increased physical activity post-cancer is associated with better physical functioning, reduced fatigue, and less bodily pain. It is important to promote recreational physical activity among cancer survivors to enhance their QOL.²⁷ Papillary Carcinoma is the most common thyroid cancer type, particularly in females, across all age groups.²⁸

During the covid 19 pandemic, when the stay at home orders and stringent lockdown measures across the world were implemented, many patients presented with upper respiratory tract infection showing symptoms of cough. Given the worldwide panic caused by the covid 19 pandemic, national resources were mostly stretched out in order to tend to the overgrowing concern of the virus and therefore less resources were available to deal with patients of lung cancer. Moreover, given the prevalence of cough being a very common

symptom between both diseases, patients suffering from lung cancer were therefore seen to receive delayed treatment owing to the misdiagnosis which resulted in the upstaging of the cancer and worst outcomes²⁹ recent studies across Pakistan were seen to show an upstroke in the number of cases of patients suffering from lung cancer and therefore this is a cause of emergency that needs to be tended to immediately.³⁰

Conclusion

In the search for determining how QOL is affected in survivors of cancer of South Asian descent, it was seen that in general there is a substantial decrease in quality of life of cancer survivors in this region. Furthermore, it was noticed that the target population was seen to equally from mental health issues as compared to other impacts of the deadly disease.

Given the grave consequences, awareness must be raised to combat such dire circumstances and improve the overall quality of cancer survivors

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Authors' Contribution

All the authors contributed equally in accordance with ICMJE guidelines.

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