

Effect of yoga in quality of life among patients with oral cancer: a systematic review

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ABSTRACT

Head and neck cancer, which includes the oral cancer, is the seventh commonest cancer worldwide, estimating for more than 660,000 fresh cases and 325,000 mortalities every year. However, cancer and its treatment are often associated with prolonged adverse physical and psychosocial symptoms, including reduced physical function and fitness and increased risk of anxiety, depression, and fatigue. This greatly impacts the patient's quality of life (QoL).

The aim of the present study is to conduct a systematic review of the effects of yoga in in quality of life among patients with oral cancer.

An electronic database search was performed to identify the suitable literature using Cochrane, EBSCO host, PubMed and Trip database. The literary search was focused on the effect of yoga on quality of life among oral cancer patients.

A total of 23 relevant studies were identified, and only 2 articles were taken for the systematic review.

The review concludes that yoga improves the quality of life among oral cancer patients.

INTRODUCTION

Head and neck cancer, which includes the oral cancer, is the seventh commonest cancer worldwide, estimating for more than 660,000 fresh cases and 325,000 mortalities every year.(1) In the Asian continent, oral cancer is among the commonest types of cancers because of the high tobacco usage, betel quid chewing and excessive alcohol intake. Within Asia, prevalence likewise differs whereby the highest frequency was observed in Southern Asia exclusively in countries such as Bangladesh, Afghanistan, Sri Lanka, India, and Pakistan.(2)

Currently, surgery is regarded as the best approach for the management of oral cancer, with adjuvant or neo-adjuvant chemo-radiation to eliminate residual tumor or down-stage tumor before surgery.(3) Despite the combination of all preventive and treatment strategies, the quality of life of oral cancer patients still remains deprived.(4)

However, cancer and its treatment are often associated with prolonged adverse physical and psychosocial symptoms, including reduced physical function and fitness and increased risk of anxiety, depression, and fatigue.(5) This greatly impacts the patient's quality of life (QoL). Therefore, there is a need for effective methods to manage physical and psychosocial symptoms and to improve QoL of cancer patients and survivors.(6)

Psychosocial interventions such as counselling, support groups and cognitive behavioural therapies may help patients cope with cancer and the psychosocial problems associated with cancer and cancer treatment, but are less likely to help with common physical issues such as loss of strength and flexibility, weight gain, and reduced physical function.(7) Findings from previous reviews and meta-analyses suggest that aerobic and resistance exercise attenuate a range of the physical problems associated with cancer and cancer treatment.(8) The benefits of these types of exercise include not only improved physical function, but also reduced fatigue and improved QoL. Unfortunately, many cancer patients perceive various barriers to exercise. The most common physical barriers are physical discomfort and feeling sick. Psychosocial barriers include having low mood, feelings of self-consciousness relating to appearance and body image, fatigue and fear for overdoing it. Because of these barriers, approximately one out of three adult cancer patients turns to complementary and alternative medicine techniques, mindfulness, or yoga, to help manage their symptoms. (9)

The aim of the present study is to conduct a systematic review of the effects of yoga in in quality of life among patients with oral cancer.

MATERIALS AND METHODS

This systematic review utilized the methods as per the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analysis) Guidelines, to identify, evaluate, and summarize all relevant research findings. The protocol for systematic review was registered first with PROSPERO.

POPULATION: Patients with oral cancer

INTERVENTION: Yoga therapy

COMPARISON: Nil

OUTCOME: Quality of life

Inclusion criteria

1. Studies which included the effects of Yoga among oral cancer patients.
2. Studies which assessed quality of life among oral cancer patients.
3. Cross sectional, case-control, cohort, and comparative studies were only included
4. Studies done in the past 15 years were included.
5. Studies which was written in the English language were only included.

Exclusion criteria

1. Studies that included other than yoga as an intervention.
2. Qualitative studies, reviews, expert opinion, systematic reviews, meta-analysis, and case studies/series
3. Studies that required translation to the English language

Literature search strategy

The studies published from 2013 to 2023 were reviewed for literary consideration using the following database such as PubMed, Trip database, Cochrane, Google Scholar, EBSCOhost. Boolean search operators “AND” and “OR” were used to link the search terms.

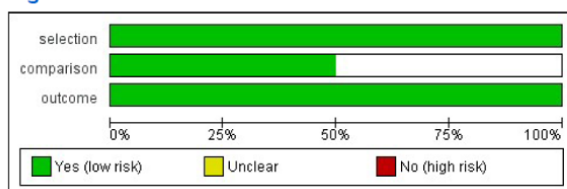
Data extraction

The data from the studies eligible for the review was extracted manually. It included the variables such as: first author name, year of publication, type of study design, aim, summary and outcome

Risk of bias assessment

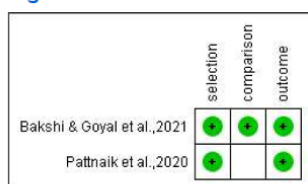
The quality assessment of the studies included in the systematic review was done by using Review Manager 5.4.1 software. The results of the assessment are displayed in the figure 1 & 2 and it was found to be low risk of bias.

Figure 1



Risk of bias graph: review authors' judgements about each risk of bias item presented as percentages across all included studies.

Figure 2



Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Search results

A total of 23 articles were obtained based on the title from different electronic database, namely PUBMED, TRIPDATABASE, EBSCO, GOOGLE SCHOLAR, and COCHRANE. PUBMED produced 4 articles, 2 articles obtained from TRIPDATABASE, EBSCO produced 1 article, Google Scholar produced 16 articles, and no articles were found in COCHRANE. The full texts of 8 articles were taken for further steps. Among the obtained articles, 3 articles were eliminated due to duplication, 2 articles eliminated after abstract reading, and 1 article eliminated after full-text reading. Finally, on the basis of inclusion and exclusion criteria, 2 articles were selected for the review using PRISMA flowchart [Flow Chart 1]

DISCUSSION

Yoga has been used to treat diseases in contemporary Western society with increasing frequency since the late 1970s. (10) Yoga is often used as a reasonably safe complementary modality for health maintenance and restoration, as well as an adjunct tool in the

chronically ill. (11) In cancer patients, the vast majority of yoga studies have been conducted in survivors of breast cancer. Studies suggest that yoga is an effective intervention for managing cancer-related symptoms, ameliorating psychosocial distress, and enhancing overall QOL. (12)

Yoga is considered a significant practice, which can impact positively on general wellbeing, and it is regarded as crucial in enhancing the quality of life in patients with cancer. (13)

Studies have found that yoga practice may assist cancer patients and survivors in managing symptoms such as anxiety, fatigue, insomnia depression, and pain. (14,15) Stress contributes adversely to the management of cancer leading to decreased quality of life. Yoga is a significant nonpharmacologic option to relieve stress and anxiety.(15) The review underscores the role of yoga in improving the quality of life of advanced-stage oral cancer patients. A study found that yoga improves relaxation and reduces stress. (16) The overall effects account for improvement in routine activities which eventually increases the quality of life in cancer patients. Another study found the same effect of women with breast cancer that yoga practice is able to reduce stress and inflammation levels over time which impact positively on quality of life of population with cancer. (17)

A study conducted by Bakshi and Goyal et al., explored the role of yoga therapy on the quality of life of oral cancer patients as an integrative by using the EORTIC-H&N-35 questionnaire. The common yoga protocol like stretching and bending exercises, postures (Yogasanas), breathing exercises (Pranayam), and meditation were given as an intervention to the subjects who performed yoga for 1 hour per day/5 days per week for 3 months and found a significantly reduced anxiety, saliva stickiness, and episodes of falling ill (p-values < 0.05).(18)

Yoga contributes to the prevention and long-term remission from cancer. Physical exercise has the ability to kill the emerging cancerous cells naturally and reduces the chances of carcinogenesis. Yoga helps in decreasing the inflammatory response and increase the immunity that helps to achieve the good oral health. (19)

In addition, an integrative care approach that considers a nonpharmaceutical approach could help to reduce care cost while improving care outcomes and quality of life. Yoga could counterbalance the effects of radiotherapy with or without chemotherapy, which often result in some treatment complications. (18) The effects of yoga cannot be compared with conventional treatment (radiotherapy and chemotherapy). Yoga presents a less complicated supplementary therapy, not a substitute, and there is no study recommending it alone in the care of oral cancer or any other cancers. Further human and epidemiological studies are required to evaluate the long-term effect of yoga on the health of the individual with oral cancer.

CONCLUSION

Yoga therapy has been shown to improve the mental health and oral health of cancer patients; thus, it makes essential to include yoga in both cancer prevention and treatment. Any therapy that might improve a cancer patient's quality of life should be accepted, especially if there are no side effects. Especially in cancer treatment, yoga addresses anxiety and stress, which are fundamental concerns. Knowledge of non-pharmaceutical therapies, like yoga, is crucial for healthcare professionals. We urge that yoga be gradually incorporated into the treatment of oral cancer, and that its potential advantages be taken into account.

Strengths and limitations

An extensive literature search was performed in 5 databases. The search and data extraction were performed by two authors independently to minimise the bias in the review process.

The limitation of the study is that only 2 literatures were included which lacks the evidence to be stronger and moreover, the lack of longer term follow-up leaves unanswered questions regarding the uptake of yoga into the daily lives of the participants and fails to capture long-term outcomes. Many of these limitations can be addressed in a larger study that follows participants for an extended period of time.

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FLOWCHART 1

PRISMA FLOWCHART 2020

