

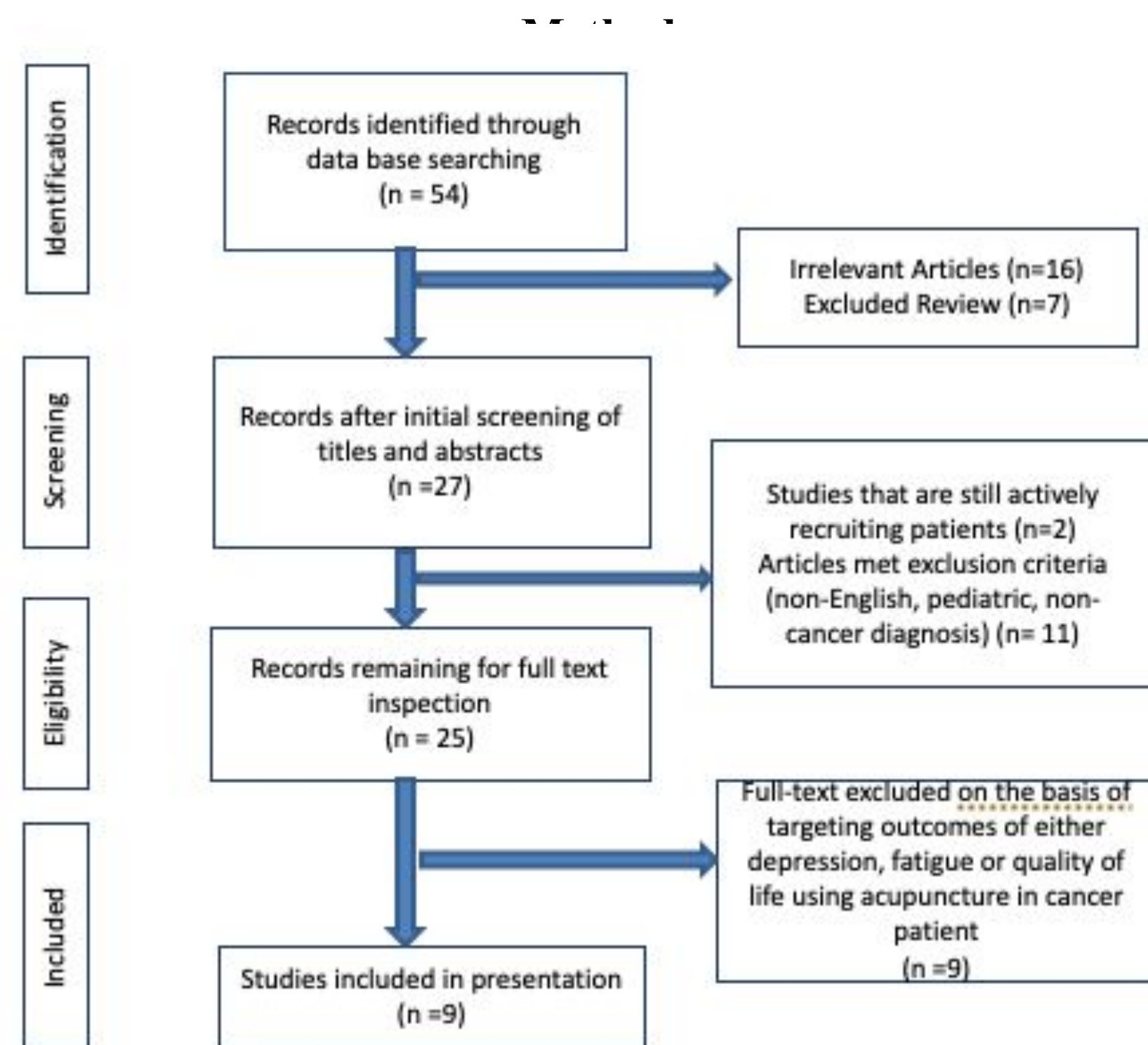
Introduction

The number of patients who are newly diagnosed with cancer increases dramatically every year. The medical treatments for cancer has also advanced and evolved in a way that cancer survivorship has increased the past few years. Unfortunately, long-term mood disorder and the psychological effects of the disease are often disregarded. The diagnosis of depression often accompanies cancer diagnosis, reducing the patient's quality of life. Many researchers are exploring ways to improve quality of life by focusing their treatment on mental health. Pharmacological approach has shown some evidence of relieving depression symptoms, but non-pharmacological approach has also sparked interests in some researchers. Acupuncture is a form of Traditional Chinese Medicine that has been practiced for over 2,500 years. In this review, the effects of acupuncture on depression, fatigue, and overall quality of life within cancer patients are examined.

Objective

The aim of this review is to evaluate the efficacy of acupuncture in:

- Depression
- Fatigue
- Patient-perceived quality of life.



Results/Outcomes

Total of 9 studies examined:

8 quantitative studies assessed the patient's perception of quality of life using questionnaires:

- 7 studies found statistically improvement of quality of life and better symptom control
- 1 study found no difference

Limitations

- Exact anatomical site of acupuncture is not consistent in each study

Clinical Implication

- As the number of cancer survivors increases, there should also be more awareness on patient's quality of life during cancer survivorship
- Acupuncture can increase a patient's quality of life and can improve mood
- No research studies show any harmful effects of acupuncture
- Acupuncture treatment should be offered to patients with no contraindications
- Further research with exact acupuncture sites should be conducted to rule out placebo effect

Author, year, country	Study design	Patient population	n=	Intervention	Data collection questionnaire	Relevant outcome
Axelsson, 2014, Demark	Prospective experimental study	Women with primary breast cancer in outpatient setting	51	Acupuncture and self-care involving acupressure, cognitive therapy, exercises and nutrition	HADS, MDI	PPS-guided therapy improved Quality of Life
Ben-Arye, 2018, Israel	Prospective study on patients' charts	Outpatient oncology patients who have CITD diagnosis	34	CIM treatment: dietary herbal supplement and weekly acupuncture treatment	ESAS	Improvement for the symptoms of depression including fatigue and drowsiness as well as the standard measures for depression
Dean-Clower, 2010, United States	Single-armed prospective cohort study	Ambulatory patients with advanced ovarian or breast cancer from 2 academic medical centers	26	12 acupuncture sessions over 8 weeks	BPI, RSCL, SLDS-C, POMS-SF, Cancer Coping Methods	Significant improvement in reported fatigue, depression, and pain for participants
Deng, 2013, United States	Randomized controlled study	Cancer patients who completed a round of chemotherapy at least 60 days before the study	74	Acupuncture or sham acupuncture once a week for 6 weeks	BFI, HADS, FACT-G	No statistical difference in fatigue, depression, and anxiety between the two treatment groups
Yu, 2011, China	Randomized controlled trial	Patients with malignant tumors from outpatient and inpatient settings	80	Control group: fluoxetine capsule 20mg per day Treatment group: 20-30 minutes acupuncture treatment per day	SDS, HAMD, PSQI	Statistically significant in relieving depression after either acupuncture treatment or fluoxetine 20mg capsule
Hervik, 2010, Norway	Qualitative study	Breast cancer patients treated with estrogen antagonist who received acupuncture treatment two years ago	61	Nonrelevant	Nonrelevant	Patients who received acupuncture two years ago reported less symptoms of hot flashes and generally have a better quality of life comparing to the control group
Mao, 2014, United States	Randomized controlled trial	Postmenopausal women with breast cancer and self-reported joint pain from aromatase inhibitor	67	Eight-week treatment of electro-acupuncture (EA) versus sham acupuncture (SA) and waitlist control (WLC)	BPI, BFI, PSQI, HADS	Significant improvement in fatigue, sleep, anxiety and depression with EA compared to WLC. Both EA and SA produced similar reduction of depression symptoms in participants.
Miller, 2019, United States	Retrospective chart review	Ambulatory cancer patients with pain	68	Acupuncture sessions (range 1-13)	ESAS	Significant improvement in reported pain, anxiety, depression, and sense of well-being after the first session and after the entire treatment
Molassiotis, 2012, United Kingdom	Randomized controlled trial	Women with breast cancer who has completed treatment for at least 1 month and up to 5 years	246	Six acupuncture sessions vs usual care over 6 weeks	MFI, HADS, FACT-B	Significant improvement in overall fatigue, psychological distress, and all domains of quality of life after 6 weeks of acupuncture treatments