



Systematic Review of ACT-Based Digital Interventions for Breast Cancer Patients: A PRISMA-Guided Framework for Developing the ACT Care Application

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ABSTRACT

Background: Breast cancer patients frequently experience emotional distress, anxiety, and difficulty in accepting their diagnosis during medical treatment. Acceptance and Commitment Therapy (ACT) has been shown to enhance psychological flexibility and improve quality of life. Integrating ACT principles into digital health applications provides a promising approach to deliver continuous psychological support.

Purpose: This study aimed to systematically review evidence supporting ACT-based digital interventions and identify core components for developing ACT Care, a mobile application designed to promote acceptance and psychological well-being among breast cancer patients.

Methods: A systematic literature review was conducted using the PRISMA approach. Articles published between 2014 and 2024 were retrieved from PubMed, Scopus, ScienceDirect, PsycINFO, and Google Scholar using the keywords “Acceptance and Commitment Therapy,” “digital intervention,” “mobile application,” “breast cancer,” and “psychological well-being.” Studies that examined ACT-based digital interventions for adults with cancer were included. Data were extracted and analyzed thematically.

Results: Eighteen eligible studies were identified. The most effective ACT-based interventions incorporated features such as mindfulness practice, self-acceptance modules, cognitive defusion techniques, reflective journaling, and value-based action planning. These components were integrated into the conceptual model of ACT Care to enhance emotional regulation and resilience.

Conclusion: ACT-based digital interventions effectively improve psychological adjustment among breast cancer patients. The findings support the development of ACT Care as a culturally adaptive digital tool for complementary psychosocial support during cancer treatment.

Keywords:

Acceptance and Commitment Therapy, breast cancer, digital health, mobile application, psychological well-being