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Delivering a physical activity intervention during breast cancer chemotherapy: recruitment, adherence, and attrition

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Background: Increasing physical activity levels during chemotherapy is crucial for health maintenance; however, adherence is difficult. We piloted a randomized controlled exercise intervention during chemotherapy for breast cancer. This abstract reports on recruitment, intervention adherence, and attrition.

Methods: The PROTECT Trial was a pilot randomized control trial studying the effect of exercise on cognition during breast cancer chemotherapy (NCT05716542). Recruitment was defined as the number of participants enrolled divided by the number approached. Intervention adherence was defined as: educational coaching sessions attended, home exercise sessions completed, and Fitbit wear days divided by the number of eligible days on trial. Attrition was defined as the percentage of participants who withdrew from the trial.

Results: We approached 117 potentially eligible individuals who were approached to participate in the study and enrolled 41 (recruitment rate=35%). Thirty-eight were ineligible and 27 were unwilling to complete screening. Eleven were eligible but declined (e.g., too many obligations, n=4; travel/transportation concerns, n=4; concerned about chemotherapy effects/exercise tolerance, n=2; no longer interested, n=1). Ten participants withdrew due to overwhelm and chemotherapy side effects (attrition rate=24.4%; six intervention, four control). Twelve intervention participants received a mean of 5.83 (SD=0.39) out of 6 educational content sessions (97.2%) and reported engaging in 252 total home exercise sessions, with a mean 2.73 (SD= 1.90) home exercise sessions per completed coaching session. Mean Fitbit adherence was 81.8% (SD=22.7%) across all participants and 86.8±14.3% and 78.5±26.5% for intervention and control participants, respectively.

Conclusions: The overall enrollment rate was low; implementation of lifestyle interventions during cancer treatment remains challenging. However, newly diagnosed breast cancer patients enrolled in the PROTECT Trial had high levels of adherence to exercise intervention components (i.e., coaching sessions, home exercise, Fitbit) with little attrition. Future research should consider how exercise interventions can be personalized during treatment to meet patients' varied needs.

Keywords

Breast cancer; chemotherapy; exercise; prehabilitation; adherence; recruitment; randomized controlled trial

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

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