

Thinking Through the Chemo-Fog: Occupational Therapy's Role in Promoting Participation in Adults with Breast Cancer

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Objectives of Presentation:

1. Describe “chemobrain” and its impact on occupational performance in adults with breast cancer
2. Identify the role of occupational therapy practitioners in using cognitive interventions for adults with breast cancer
3. Discuss how occupational therapy practitioners can apply the evidence and use it to advocate in practice

Clinical Question: What are the occupational therapy interventions used to improve cognitive deficits secondary to chemotherapy in adults with breast cancer in order to maintain occupational roles and increase participation in meaningful activities

What is Chemobrain?

- Aka: Chemotherapy Related Cognitive Impairment, Chemo-Fog
- It is a Mild Cognitive Impairment: Decline in at least 1 cognitive domain (complex attention, executive function, learning and memory, language, perceptual-motor or social cognition)³
- Does not affect capacity for independence but may require compensatory strategies or accommodations³

Symptoms of Chemobrain:

- Taking longer to finish a task, Memory lapses, Trouble concentrating, Trouble remembering details, Trouble multitasking

Methods:

- Databases: CINAHL, MEDLINE, and Cochrane
- Search Terms:
 - Population - breast cancer, breast neoplasm, chemobrain, chemo fog, chemotherapy, cognitive impairment
 - Intervention - memory strategies, assistive technology, occupational therapy, cognitive rehabilitation, cognitive intervention, remedial strategies
 - Outcome - participation, activities of daily living, occupational roles, occupations, quality of life, memory
- 239 articles were found from databases and 20 articles were found from other sources
 - After deduplication, 244 articles were screened for approval based on title
 - From those 244 articles, 52 articles were assessed for approval based on abstract
 - From those 52 articles, 26 articles were included for detailed review
 - Total of 13 articles included in qualitative synthesis
 - 7 Quantitative (1 Meta-analysis, 4 Randomized Controlled Trials, and 2 Cross Sectional)
 - 6 Qualitative (Grounded Theory and Phenomenology)
 - All final articles critiqued completed by a primary and secondary reviewer

Results:

- 3 Themes identified from 13 articles
 - Lived Experience (Qualitative studies)
 - Individuals with breast cancer receiving chemotherapy express that healthcare providers are not acknowledging chemotherapy-related cognitive impairments and are requesting more support
 - Types of Interventions (Quantitative/Qualitative studies)
 - Compensatory -Structuring Routines and External Memory Strategies: day planners, calendars, activity adaptation, journals, post-its, lists, putting objects in sight.
 - The most common coping strategy is writing things down
 - Remedial - Cognitive exercises: verbal rehearsal, memory training, puzzles & workbooks, problem-solving
 - Psychosocial- Support groups, fatigue management, and stress management
 - Patient Education- provide more information to patients and caregivers

- Assessments (Quantitative studies)
 - Self-reports of cognitive impairment tend to exceed objective neuropsychological test results
 - Functional Assessment of Cancer Therapy- Cognitive Function (FACT-Cog) is a self-report measure sensitive enough to measure effects of treatment

Occupational Therapy Practitioners need to:

- Acknowledge the existence and prevalence of chemobrain
- Educate patients and families during all stages of chemotherapy treatment
- Consider the lived experience to provide client-centered care

13 Articles Reviewed

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