Cognitive Stimulation and Dementia: Traditional Interventions vs. Computer-Based Methodologies

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ABSTRACT

Background. We aimed to discuss the role of cognitive stimulation in healthy older adults or with mild-to-moderate dementia and the most important benefits and differences between the cognitive stimulation without computerized tasks *vs* the cognitive stimulation using computerbased assistive technology.

Methods. We conducted a literature review covering significant literature reporting empirical results from cognitive stimulation for healthy older adults or have some type of dementia. Each paper was reviewed in terms of cognitive stimulation, both traditionally and using computerbased assistive technology.

Results. We included a total of 35 studies in our review. Our findings indicated that in general, the studies evidence benefits of applying cognitive stimulation, both traditionally and using computer-based assistive technology, especially in people with dementia. But there is heterogeneity regarding methods, design of intervention studies, and procedures in both methods. We added value by integrating different information existing in this field. These results showed a need for further work. Future studies should explore the true effects of cognitive stimulation programs using computer-based assistive technology involving older adults at the various stages of dementia, their results and efficacy and reliability levels and if this technique can delay or prevent dementia.

Keywords: computer-based assistive technology; cognitive stimulation; dementia; healthy older adults; older adults