Sensory Interventions for Dementia: A Review

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Abstract: Introduction: Sensory interventions are popular therapeutic and recreational approaches for people living with all stages of dementia. However, it is unknown which sensory interventions are used to achieve which outcomes across all subtypes of dementia. Methods: To address this gap, we conducted a scoping review of sensory interventions for people living with dementia. We conducted a search of the literature for any article published in English from 1 January 1990 to 1 June 2019, on any sensory or multisensory intervention targeted to people living with any kind of dementia, which reported on patient health outcomes. We did not include complex interventions where only a small aspect was related to sensory stimulation. We searched the databases Medline, CINHAL, and Psych Articles using our institutional discovery layer. We conducted all screening in duplicate to reduce Type 1 and Type 2 errors. The data from all included papers were extracted by one team member, and audited by another, to ensure consistency of extraction and completeness of data. Results: Our initial search captured 7654 articles, and the removal of duplicates (n=5329), those that didn't pass title and abstract screening (n=1840) and those that didn't pass full-text screening (n=281) resulted in 174 articles included. The countries with the highest publication in this area were the United States (n=59), the United Kingdom (n=26) and Australia (n=15). The most common type of interventions were music therapy (n=36), multisensory rooms (n=27) and multisensory therapies (n=25). Seven articles were published in the 1990's, 55 in the 2000's, and the remainder since 2010 (n=112). Discussion: Multisensory rooms have been present in the literature since the early 1990's. However, more recently, nature/garden therapy, art therapy, and light therapy have emerged since 2008 in the literature, an indication of the increasingly diverse scholarship in the area. The least popular type of intervention is a traditional food intervention. Taste as a sensory intervention is generally avoided for safety reasons, however it shows potential for increasing quality of life. Agitation, behavior, and mood are common outcomes for all sensory interventions. However, light therapy commonly targets sleep. The majority (n=110) of studies have very small sample sizes (n=20 or less), an indicator of the lack of robust data in the field. Additional small-scale studies of the known sensory interventions will likely do little to advance the field. However, there is a need for multi-armed studies which directly compare sensory interventions, and more studies which investigate the use of layering sensory interventions (for example, adding an aromatherapy component to a lighting intervention). In addition, large scale studies which enroll people at early stages of dementia will help us better understand the potential of sensory and multisensory interventions to slow the progression of the

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