Older adults in the early stages of Alzheimer's and dementia deserve effective modalities that support their cognition, emotional well-being, and social engagement. Music has demonstrated potential to support these critical outcomes through its ability to simultaneously stimulate multiple areas of the brain and induce neuroplasticity. We reviewed randomized controlled trials for studies that specifically utilized active music-making interventions for older adults with early-stage cognitive decline to assess their effects on cognition, emotional well-being, and social engagement. Additionally, this review categorized the specific music activities employed by each intervention. We conducted searches on Medline (Ovid), APA PsycInfo (Ovid) CINAHL (Ebsco), and Embase (Elsevier). Our search yielded 285 potential studies. We analyzed 19 studies with 1,387 participants for potential effect sizes and intervention ingredients. Of the 19 studies, eight studies, recruiting a total of 460 participants, were used to conduct a random-effects meta-analysis to assess the effect of music on cognition. Meta-analytic aggregation of effect sizes showed that music had a modest positive effect on cognition compare with the control conditions (SMD= 0.26; P= 0.008; 95% confidence interval, 0.07, 0.45; I2= 5%). The musical activities of 1) singing and/or playing pre-composed songs and/or 2) creating music in the moment were utilized in the protocols. This research demonstrates that active music-making supports cognition for older adults with early-stage cognitive decline. Future music programs should consider inclusion of pre-composed songs, as well as music creation, to better understand the power for music to provide critical support for a rapidly growing segment of the population.

PREDICTORS OF BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS IN COMMUNITY-DWELLING OLDER ADULTS WITH DEMENTIA

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Although disclosing the predictors of different behavioral and psychological symptoms of dementia (BPSD) is the first step in developing person-centered interventions, the current understanding is limited as it considers BPSD as a homogenous construct, not accounting for its heterogeneity. Therefore, this study explored the predictors of BPSD subsyndromes, and built prediction models for these subsyndromes in community-dwelling older adults with dementia in Korea. This prospective study consisted of a two-wave dataset. We fit the generalized linear mixed models using Wave 1 data (N = 145) and then validated them using Wave 2 data (N = 59). BPSD and their proximal factors were assessed on a daily basis using diaries written by family caregivers. Sleep and activity levels were objectively measured using actigraphy. The amount of nighttime sleep hours was significantly associated with next-day sleep and nighttime behaviors (OR = 0.87; p = 0.005), with the amounts of energy expenditure showing significant association with euphoria/elation (OR = 0.02; p = 0.019). All subsyndromes except euphoria/elation were found to be significantly associated with either hunger, thirst, urination, or bowl movement; with all BPSD showing a significant association with environmental changes. We also found several background factors, including premorbid personality and taking sedatives as predictors for specific subsyndromes. The area under the receiver operating characteristic curve scores for the data were greater than 0.9 and 0.8 in Waves 1 and 2, respectively, across all subsyndromes. Prediction models for BPSD will help in the development of symptom-targeted, individualized interventions.

PRESCRIPTION PATTERNS OF ANTI-DEMENTIA AND PSYCHOTROPIC DRUGS IN PEOPLE LIVING WITH DEMENTIA IN CHINA

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Pharmacotherapy of dementia is a critical intervention for managing symptoms of and slowing progression of dementia. However, evidence on prescribing patterns of dementia medications and their associated factors in China is lacking. This study aimed to examine prescribing rates of anti-dementia and psychotropic drugs, and investigate factors associated with prescription of anti-dementia drugs and its co-prescription with psychotropic drugs in China. We used data from the Clinical Pathway for Alzheimer's Disease in China study, an eight-week multi-center registry study that was conducted in tertiary hospitals between Nov 12, 2012, and Jan 31, 2013. Anti-dementia and psychotropic drugs were coded according to the Anatomical Therapeutic Chemical codes. Logistic regressions were performed to examine factors associated with prescription patterns after controlling for demographic and clinical characteristics of people living with dementia and caregivers' characteristics. A total of 746 participants were included in this study, of which almost 80% of participants were prescribed anti-dementia drugs, and one-third were prescribed at least one psychotropic drug. The concomitant prescription rate of anti-dementia and psychotropic drugs was 24·3%. Logistic regression results showed that first consultation, dementia subtypes, dementia severity, functioning level, and having symptoms of psychosis and apathy were significantly associated with anti-dementia drug prescription. Frontotemporal dementia, worse functioning level, psychosis, agitation, and depression were significantly associated with co-prescription of anti-dementia and psychotropic agents. Practices of dementia prescriptions generally concurred with clinical guidelines in tertiary hospitals in China, while prescription of anti-dementia and psychotropic medications mainly depended on clinical symptoms of patients with dementia.