

under the current social-structural conditions in rural China. The study is informed by the intergenerational solidarity theory and the theoretical framework of social relationships and their influence on health. The quantitative study is based on the recent wave of Harmonized China Health and Retirement Longitudinal Study (Harmonized CHARLS) in 2015, which is a high-quality national-level dataset. The study applies conditional process analysis to do the data analysis. The key findings include: the number of children has a negative association with older adults' depressive symptoms ( $c = -.2390, p = .0002 < .05$ ); the number of children influenced older adults' depressive symptoms indirectly through financial support from children (If children do not live with older parents,  $ab = -.0141, CI = -.393$  to  $-.0038$ ; If children live with older parents,  $ab = -.0153, CI = -.369$  to  $-.0056$ ). However, both these direct and indirect relationships do not depend on the co-residence situation between older adults and their children. The controlling variables include age, gender, and self-rated health. Under China's current transition period of population policy, this study provides policy implications regards to the characteristics of children support and their influence on older adults' mental health, especially in rural China. This study also tests the two theories to some extent under the Chinese context, which were initially developed in Western countries.

#### FACTORS ASSOCIATED WITH SEVERITY OF DEPRESSION: EVIDENCE FROM THE CHINA HEALTH AND RETIREMENT LONGITUDINAL STUDY

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Depression among older adults in China is widespread. To explore factors associated with depression among older adults, most studies focus on the individual as the unit of analysis. However, since individuals are nested in families, it is important to understand depression within a family context. To address this gap, the current study examines the degree to which individual and dyad-level characteristics were associated with the severity of depression among older couples in China. Data for the study were drawn from wave 4 of the China Health and Retirement Longitudinal Study. The total sample size in the study was 2560 older couples aged 60 and above. Multilevel modeling was used to analyze the dyadic data. Our preliminary findings suggested the partial intraclass correlation between a dyad's depression scores was 0.32, which shows that a couple's scores were similar to one another. Those who were female, were younger, lived in rural areas, had lower cognition, and those whose spouses had lower cognitive ability were associated with more severe depression. The findings provided empirical evidence to support the argument that more community mental health resources should be allocated to rural areas in China. Moreover, given that female older adults are more vulnerable to depression compared to male older adults, it is imperative to develop tailored services to support women to enhance their psychological wellbeing. In addition, as spousal cognition was negatively correlated with depression, services to support older couples where one has dementia are needed.

#### CAN THE BRIEF INTERVIEW OF MENTAL STATUS (BIMS) IDENTIFY RISK FOR IMPAIRED IADLS DUE TO FUNCTIONAL COGNITIVE DEFICITS

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The Brief Interview of Mental Status (BIMS) was introduced to the Minimum Data Set (MDS) 3.0 as a cognitive screening tool. It includes temporal orientation and word recall (Saliba et al., 2012). This study examined the ability of the BIMS to identify impairment on performance-based functional cognitive screening tests that assess instrumental activities of daily living (IADLs). We recruited a cross-sectional sample of 200 participants who met the following inclusion criteria: age 55 and older, living independently in the community, and able to read and communicate in English. Participants ranged in age from 55 to 92 years (Mean 70.96:SD = 8.56), were predominantly White (68%) and female (65%). Participants were administered the BIMS and a battery of performance-based tests of functional cognition -the Performance Assessment of Self Care Skills and the Weekly Calendar Planning Activity (WCPA). There was a mismatch in screening results: Among Individuals identified as cognitively intact on the BIMS 22-45% were found to be impaired on the PASS and/or the WCPA. Sensitivity of the BIMS to identify impaired IADL function did not exceed .06, although specificities were high ( $< .95$ ). These findings suggest that individuals categorized as cognitively normal by the BIMS may be impaired on more complex IADL tasks. Individuals classified as unimpaired on the BIMS, may benefit from more complex functional cognitive screening to further assess IADLs function to better estimate ability to live independently in the community. Performance based assessments can improve discharge planning by identifying elders at risk after hospitalization.

#### EFFECTIVENESS OF A COLLABORATIVE STEPPED-CARE MODEL FOR OLDER ADULTS WITH DEPRESSION

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Background: Depression is common among older adults and creates a substantial burden on individuals, caregivers, and healthcare system. This paper presents an innovative collaborative stepped care intervention that promotes the coordination between elderly center and community mental health center to provide nonpharmacological intervention to elders with mild to moderate level of depression. Methods: The stepped care model were implemented in four districts in Hong Kong between September 2017 and February 2019. In each district, one community mental health center and one elderly center worked together to implement this stepped care model. A quasi-experimental design was used to study the effectiveness of this intervention. Findings: A total of 853

older adults completed the intervention and additional 500 elders were recruited as control. The average age of intervention participants was 76.3 years. Their levels of depression and anxiety were measured by Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder 7-item (GAD-7) respectively. The average intervention lasted for 10 months. Their average PhQ9 score reduced from 7.2 before intervention to 2.7 after intervention ( $t=34.7, p < .001$ ). Their level of anxiety was lowered from 4.9 to 2.0 ( $t=16.9, p < .001$ ). The difference between the intervention and control groups were statistically significant. Conclusion: The stepped care model was effective in reducing the levels of depression and anxiety among Chinese older people. This paper will give detailed information about the stepped care model and its implementation.

#### PROTOTYPE OF A VIRTUAL REALITY APPROACH TO INTEGRATE MENTAL HEALTH ACROSS GERONTOLOGICAL ENVIRONMENTS

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Background: Puerto Ricans have the highest likelihood of psychiatric disorders among Latinos. This study developed and evaluated a prototype depression literacy curriculum; culturally grounded with perspectives and narratives of Puerto Rican older adults. The way a person determines need for services and decides to seek help has been found to be influenced by their perceptions of services and providers. McGuire (1989) presents the Communication Persuasion Model (CPM) that takes into account how persuasive communication changes attitudes and behaviors of consumers. Using the CPM as a theoretical foundation, this study presented a culturally grounded story through a Virtual Reality (VR) platform. Methods: A script was developed based on narratives of Puerto Rican older adults about depression. Filmed in 360° format and enhanced with supporting imagery, participants were presented two versions of the video, one with a VR headset and the other with a smartphone. Two focus group interviews were conducted with community-dwelling Puerto Rican older adults ( $n=14$ ) in Orlando, FL. Results: Participants preferred the VR headset and found it was beneficial to educate about depression because it felt more immersive and encouraged an environment conducive to identifying their own experiences about depression. They noted that presenting the material with a case narrative was more culturally sensitive for the population. All participants needed minor assistance with operating technology. Conclusions and Implications: A narrative approach to depression literacy may be effective in personalizing messages. Assisted VR technology with supporting imagery may be efficacious and standardize positive messages to underrepresented and low resource populations.

#### DEPRESSION AND HYPERTENSION AS RISK FACTORS OF CARDIOVASCULAR EVENTS AMONG MIDDLE-AGED AND OLDER ADULTS IN CHINA

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Objectives: 1) Examine effects of depression and hypertension on cardiovascular events (CV) in a two-year period. 2) Explore urban and rural differences Methods: Data from the first two waves of Chinese Health and Retirement Longitudinal Study, with a national sample of 14,560 adults age 45+, were used. The dependent variable is whether a CV (defined as heart attack or stroke) occurred between baseline and W2 (1=Yes, 0=No), based on respondents' report at W2. Depression was dichotomized using a score of 12 on the 10-item CES-D. Hypertension was based on self-report. Logistic regression was conducted. Covariates included sociodemographic characteristics and nine other chronic conditions. All independent variables were measured at baseline. Results: About 5.3% ( $n=768$ ) of the sample had a CV between baseline and W2. Depression increases the risks of CV by 67% for rural ( $OR=1.67, 95\% CI=1.3, 2.12$ ) and 42% for urban respondents ( $OR=1.42, 95\% CI=1.05, 1.91$ ). Hypertension increases the risk by 51% for rural ( $OR=1.51, 95\% CI=1.18, 1.94$ ) but is not statistically significant among urban respondents. Interaction effects of hypertension and residential areas are statistically significant ( $\chi^2(1) = 6.44, p = .01$ ) Conclusion and Discussion: Given the high cost associated with heart attack and stroke, treating depression is an effective approach to reduce health care cost. Hypertension increases the risk of CV for rural but not urban respondents. It may be that hypertension is not as well managed among rural residents as in their urban counterparts. Improving hypertension management among rural residents should be a priority in China.

#### A SYSTEMATIC REVIEW OF DIGITAL INTERVENTIONS ADDRESSING MENTAL DISORDERS AMONG THE ELDERLY POPULATION

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Background: Many studies have reported the widespread application of digital technologies in improving mental health. However, little is known about how these technological advancements can help the geriatric population who suffer from a wide range of mental disorders. There is no extensive review of evidence which can guide effective policy-making and implementation of such interventions. Objectives: To identify digital interventions addressing mental disorders among elderly people and evaluate the outcomes of these interventions. Methodology: According to the PRISMA guidelines, we searched six major health databases and screened the literature using these criteria: 1) journal articles reporting an intervention delivered using any of the digital platforms, 2) the interventions aimed to improve at least one mental disorder among geriatric population, 3) articles published in English language, 4) studies conducted in any settings and time frame reporting any of the mental