THE CONNECTION BETWEEN SOCIAL SUPPORT AND COGNITIVE FUNCTION AMONG ELDERS IN RURAL EAST CHINA

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This study aims to investigate the cognitive function of elders who live in rural areas of East China and studied the relationship between different subtypes of social support and cognitive function.

Two hundred and twenty-two elders aged 60 years or more were randomly selected from 9 villages of Jiande County. The assessment package included: General Characteristics Questionnaire, PHQ-9 (9-item Patient Health Questionnaire), DSSI (Duke Social Support Index), and MMSE (Mini-mental State Examination). The analysis methods included descriptive statistics and logistic regression.

The final sample included 218 participants, and 57 of them may have potential cognitive problems. Results showed that the education level, residential arrangement, and daily activities frequency may have positive relationships with cognitive function(p≤0.05). Age, the depressive symptoms presence, and overall scores of social support were negatively associated with cognitive function(p≤0.05). In the logistic regression, the best fit model indicated that elders reported more perceived social support were more likely to maintain good cognitive function.

This study found the social support's positive effect on buffering the decline of cognitive function in elders of rural East China, especially perceived social support. The positive connection between perceived social support and cognitive function indicates the importance of social support intervention approach in rural China. Further study will explore the protective effect of perceived social support in other areas, such as Midwest China, and the methods to prevent the abnormal cognitive decline in the regards of psychosocial factors for promoting healthy aging in rural China.

NEW IMPLICATIONS FOR DIABETES EDUCATION: PHYSICAL ACTIVITY BARRIERS AMONG DIABETIC OLDER ADULTS

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An estimated 33% of U.S. adults ≥65 have type 2 diabetes (T2D). Physical activity is a key component of successful T2D self-management. Yet, only 25% of older adults with T2D meet American Diabetes Association physical activity guidelines. Newly available findings from a NIA-funded ethnographic study of T2D among African-American and non-Hispanic Whites (n=83) provide insights into participants’ questions and concerns that impede their physical activity. Systematic, thematic analyses using Atlas.ti, reveal first, considerable confusion regarding the appropriateness of physical activity in the context of changing comorbidities. Second, concerns regarding insulin levels and fears about exercising alone undermine the perceived safety of physical activity. Finally, participants struggle to find specific types of physical activity that match their fitness level, lifestyle preferences, and economic constraints. Faced with these barriers, participants report not being physically active, even as they acknowledge the importance of physical activity for their T2D control. These findings are of immediate relevance to diabetes education. Personalized, ongoing diabetes education that is tailored to address physical activity in the context of T2D and participants’ comorbidities is critically needed. Furthermore, detailed information on the range of community physical activity opportunities, their accessibility, and safety for participants may play a critical role in increasing levels of physical activity among the diverse older adults with T2D.

ERRORLESS TRAINING CHANGES VISUOMOTOR CONTROL IN REACHING UNDER VISUAL DEFICIENCY AMONG OLD ADULTS

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Aging problems influence older adults on motor learning and control, such as coordination difficulties. Errorless training, aiming to prevent the accumulation of explicit knowledge in movement execution, is regarded as a potential training method to obtain motor benefit through visuomotor adaptation. Twenty-two right-handed healthy older adults (Mean age 70.07 years, SD 2.37) with normal or corrected-to-normal vision participated in the study and were trained to do a reaching task in the scenarios of changing the target size that minimized or promoted movement errors (i.e., errorless or errorful groups, respectively). The simulated vision deficiency was conducted by blocking parts of visual feedback of the hand controlled mouse cursor. Gaze behaviors and motor performance data was recorded by the EyeLink (SR Research, Canada). Both errorless and errorful training groups improved participants’ motor performance in reaching under simulated vision deficiency. However, only errorless training but not errorful training could decrease reaching movement time with improvement in reaching accuracy. Additionally, different training methods affected gaze behaviors differently. Errorless training group demonstrated a significant decrease in first fixation duration on the target (p<0.001) while errorful and normal training groups increased the duration. Participants in the errorless training group conducted more tracking actions to enter or leave the target area (p=.011), implying that perceptive dependence might be transformed from vision to proprioception. Errorless training affects gaze behaviors and motor performance positively during simple reaching task in older adults and might change the visuomotor control in reaching under the limited visual information situation by inducing a decrease in the dependence on vision with compensation by the proprioception.

SPIRITUALITY AND INTRINSIC RELIGIOSITY: MODERATORS OF WISDOM AND PSYCHOLOGICAL WELL-BEING RELATION

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General opinion suggests that wisdom, intrinsic religiosity, and spirituality are linked to favorable outcomes. Research done so far about this topic verify this belief. Yet, to the best of our knowledge, there is not any study investigating the potential effects of intrinsic religiosity and spiritual well-being on