

$p=.042$, $\eta^2=.056$). Findings indicate that the traditional measure of basic function does not capture the broad spectrum of older adults' full life and overshadows the reduced participation in meaningful activities. Health care professionals should adopt a comprehensive approach toward functional assessment to encompass participation beyond basic daily function.

COMPARISONS OF DIFFERENT MULTIMORBIDITY MEASURES TO PREDICT PHYSICAL FUNCTION AMONG MIDDLE-AGED AND OLDER CHINESE

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Multimorbidity has been associated with declined physical function. Several methods have been used to measure multimorbidity. However, few studies have compared the associations between different multimorbidity measures and physical function. We aimed to examine and compare the associations between different multimorbidity measures and physical function. We included 16,117 participants aged ≥ 45 from China Health and Retirement Longitudinal Survey (CHARLS) 2011-2018. Multimorbidity was defined as the co-existence of two or more of fifteen chronic conditions in an individual and measured by condition count at penultimate, multimorbidity patterns at penultimate (examined by exploratory factor analysis) and multimorbidity trajectories from baseline to penultimate living interview (examined by the group-based trajectory model). Physical function was assessed by activities of daily living or instrumental activities of daily living at the last follow-up. Logistic regression models were conducted for establishing prediction models in the training set. We used c-statistic, Integrated Discrimination Improvements (IDI) and Net Reclassification Index (NRI) to compare the performance of different models in the testing set. After adjusting for age and gender, compared with those without any conditions, participants with multimorbidity measured by three methods all had higher risks of poor physical function in the training set. Compared with the model using condition count (c-statistic=0.749), models using multimorbidity trajectory (c-statistic=0.712, IDI=-0.03, NRI=-0.31) and the multimorbidity pattern (c-statistic=0.739, IDI=-0.01, NRI=-0.16) showed poor predictive power (all $p<.05$). In our study, condition count has the best predictive performance for poor physical function over short time period. It is a simple and useful tool to assess multimorbidity.

GAIT SPEED MAINTENANCE IS ASSOCIATED WITH SENSORIMOTOR AND FRONTOPIRIETAL NETWORK CONNECTIVITY AMONG OLDER ADULTS

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Mobility impairment is a geriatric giant. Particularly, slow gait is associated with elevated risk for cognitive decline, disabilities and dementia. Gait is the product of complex neural network interactions and changes in their connectivity pattern may negatively impact gait speed. However, mechanistic neural correlates for gait speed maintenance and decline remained unclear. As such, the aim of this study is to investigate differences in neural network connectivity in older adults with and without gait speed decline over 24 months. This sub-analysis included 35 community-dwelling older adults age >70 years from the MOBILIZE Boston Study. Baseline assessments included four-meter gait speed test and resting-state fMRI. Gait speed was reassessed at a 24-month follow-up. Participants were stratified to "Maintainer" and "Decliner" groups based upon a cut-off of >0.05 m/s decline in gait speed from baseline to follow-up. A priori selected functional network included sensori-motor network (SMN) and frontoparietal network (FPN). Multivariate analysis of variance was performed to determine between group differences in network connectivity. Discriminant analysis was conducted to identify relative contribution of network connectivity to group classification. Between the 14 Maintainers and 21 Decliners (mean age 83.9 years), Maintainers were younger ($p=0.088$). After adjusting for age, Maintainers exhibited lower SMN premotor-precentral gyrus connectivity ($p=0.023$), greater FPN ventral visual-supramarginal gyrus connectivity ($p=0.025$), and trend level greater SMN-FPN cerebellum-occipital connectivity ($p=0.053$). Premotor-precentral gyrus connectivity showed greatest contribution to discriminant function. These preliminary findings suggest aberrant connectivity patterns of the SMN and FPN may be predictive of older adults' ability to maintain gait speed.

THE SEX DIFFERENCE IN PHYSICAL FUNCTIONING: HOW DO RISK FACTORS CONTRIBUTE?

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This study explores whether sex differences in the sensitivity to risk factors (strength of the association) and/or in the exposure to risk factors (prevalence) contributes to the sex difference in physical functioning, with women reporting more limitations. Data of the Doetinchem Cohort Study was used ($n=5971$, initial ages 26-70 years), with follow-up measurements every 5 years (up to 20). Physical functioning (subscale SF-36, range:0-100) and a number of socio-demographic, lifestyle and health-related risk factors were assessed. Mixed-model multivariable analysis was used to investigate sex differences in sensitivity (interaction term with sex) and in exposure (change of the sex difference when adjusting) to risk factors. The physical functioning score among women was 6.75 (95% CL:5.65,7.85, age-adjusted) points lower than among men. In general, men and women