

Information processing speed as a mediator between psychosocial stress and global cognition in older adults

ABSTRACT

Background: The link between psychosocial stress and cognitive function is complex, and previous studies have indicated that it may be mediated by processing speed. Therefore, the main aim of this study was to examine whether processing speed mediates the association between psychosocial stress and global cognition in older adults. Moreover, the moderating role of gender in this model is examined as well. **Methods:** The study included 2322 community-dwelling older adults in Malaysia who were randomly selected through a multistage proportional cluster random sampling technique. Global cognition construct was measured by the Mini-Mental State Examination and Montreal Cognitive Assessment; psychosocial stress construct was measured by perceived stress, depression, loneliness, and neuroticism; and processing speed was assessed by the Digit Symbol Substitution Test. Structural equation model-ling was used to analyze the mediation and moderation tests. **Results:** Processing speed was found to partially mediate the relationship between psychosocial stress and global cognition (β in the direct model = -0.15, $P < 0.001$; β in the full mediation model = -0.11, $P < 0.001$). Moreover, the relationship between psychosocial stress and global cognition was found to be significant in men only, whereas the association between processing speed and global cognition was significant in men and women. **Conclusions:** Psychosocial stress may increase the likelihood that older adults will experience poor processing capacity, which could reduce their higher level cognition. Results indicate that there is a need to develop processing capacity intervention programmes for psychologically distressed older adults to prevent them from suffering cognitive decline.

Keyword: Global cognition; Information processing speed; Psychosocial stress