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LETTER

Risk Assessment of Falls Among Older Adults Based on Probe Reaction Time During Water-Carrying Walking [Letter]

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Dear editor

I have read a research article entitled "Risk Assessment of Falls Among Older Adults Based on Probe Reaction Time During Water-Carrying Walking" by Liu et al.[1] I congratulate the authors on this successful article and make some contributions. There are three strengths of this study: 1) Use of Water Carrying Walking Probe Reaction Time (WCWP-RT) as a fast and convenient assessment method that can effectively predict the risk of falls in older adults in the community. This method is advantageous because it incorporates dual-task scenarios that more closely reflect real-life situations, where cognitive and motor tasks are often performed simultaneously. 2) Practical application of the findings of this research, which can be converted into intervention measures to improve the ability of older people to handle dual tasks, thereby potentially preventing cognitive decline and reducing the occurrence of falls through dual-task training. 3) The research methodology, which involved testing in an outdoor community environment to simulate daily walking activities, ensured that the data and conclusions were closer to real-life situations, thereby increasing the ecological validity of the findings. This approach is beneficial because it assesses fall risk using data obtained in realistic settings, indicating that the more realistic the environment, the better an older person's ability to handle the multiple tasks of daily life. This is very important because this research provides clinically meaningful information for the care and rehabilitation of older adults.

However, I identified two limitations of this study that need to be addressed in future research: 1) Measuring response time involves a degree of subjectivity because the researcher must independently choose the time difference between the stimulus sound and the subject's response. This can cause deviations in time measurements. To reduce subjectivity, future research could use automated timing systems that trigger and record response times electronically, thereby minimizing human error and increasing measurement precision.[2,3] 2) This study did not assess gait changes during walking, which is an important aspect of fall risk. Incorporating gait analysis into future research may provide a more comprehensive understanding of fall risk. This may involve the use of motion capture technology or wearable sensors to measure gait parameters objectively.[4,5]

Disclosure

The author reports no conflicts of interest in this communication. The author alone is responsible for the content and writing of the paper.

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