

Outstanding Research Paper Award Abstract

Presenter : Huang, C. Y.

Title: The Movement Assessment Battery for Children Second Edition in Ages 3 to 6 Years: A Cross-Cultural Comparison for Children in Taiwan.

Time : 2024/12/7(Sat.) 15:40~16:00

Room : Conference Hall A

Citation of the article:

Huang, C. Y., Huang, T. Y., Koh, C. L., Yu, Y. T., & Chen, K. L. (2024). The Movement Assessment Battery for Children Second Edition in Ages 3 to 6 Years: A Cross-Cultural Comparison for Children in Taiwan. *Physical therapy, 104*(1), pzad146. <https://doi.org/10.1093/ptj/pzad146>

Objective: The Movement Assessment Battery for Children-2 (MABC-2) is a popular assessment of children's motor skills in both Western and Eastern countries. Since children's motor skills are strongly influenced by the sociocultural context, it is essential to specifically examine the applicability of the MABC-2 in different cultures. The performance on the MABC-2 age band 1 of children in Taiwan was compared with the standardized sample from the United Kingdom. The sex differences in the performance on the MABC-2 were also investigated.

Methods: Children aged 3 to 6 years were recruited and categorized into 4 age groups. The researchers assessed the children with the MABC-2 age band 1, containing 8 tasks categorized into 3 components: manual dexterity, aiming and catching, and balance. Z tests and effect sizes were used to examine the cultural differences in the 3 components and in the total scale of the MABC-2. Independent t tests were used to check for sex differences in the MABC-2.

Results: Data on 615 children with a mean age of 4.95 years ($SD = 0.97$) were collected. Clinically significant differences (effect size > 0.5) were found in 2 components and the total scale of the MABC-2 across most age groups. Children in Taiwan performed better on manual dexterity, balance, and the total scale. Marginally clinically significant differences (absolute effect size > 0.4) were found in the aiming and catching component for the children aged 3 and 6 years old; children in Taiwan scored lower on aiming and catching than did children in the United Kingdom. Girls had significantly higher scores on manual dexterity, balance, and the total scale, while boys had significantly higher scores on aiming and catching.

Conclusion: Cultural and sex differences exist in the MABC-2. Constructing a norm for children in Taiwan of different sex and modification of the items are suggested for application of the MABC-2 in Taiwan.

Keywords: Children; Cultural Comparison; Movement Assessment Battery for Children-2 (MABC-2).

Presenter : Chiu, E. C.

Title : Reablement of Instrumental Activities of Daily Living for Patients With Stroke: A Randomized Crossover Trial.

Time : 2024/12/7(Sat.) 15:40~16:00

Room : Briefing Room 1

Citation of the article :

Chen, P. T., & Chiu, E. C. (2024). Reablement of Instrumental Activities of Daily Living for Patients With Stroke: A Randomized Crossover Trial. *American journal of occupational therapy*, 78(2), 7802180160. <https://doi.org/10.5014/ajot.2024.050288>

Importance: Reablement is a person-centered and goal-oriented rehabilitative intervention to optimize people's chances to live independently.

Objective: To investigate the effects of a reablement intervention on performance of instrumental activities of daily living (IADLs) in three aspects (i.e., actual performance, ability, and self-perceived difficulty) for patients with stroke.

Design: A single-blinded, randomized crossover study.

Setting: Participants' home and community.

Participants: Twenty-seven patients with stroke.

Interventions: Each participant received two interventions (IADL reablement and health education). Each intervention was administered for 6 wk. All participants were randomly assigned to one intervention and then received the other intervention after a 4-wk washout period.

Outcomes and measures: Outcomes of actual performance and self-perceived difficulty were derived from the Frenchay Activities Index (FAI) and the difficulty dimension of the Participation Measure-3 Domains, 4 Dimensions (PM-3D4D), respectively. Outcomes of ability were measured with the Lawton Instrumental Activities of Daily Living Scale (LIADL) and the Canadian Occupational Performance Measure Performance score (COPM Performance).

Results: No statistically significant differences were found in the three aspects between the IADL reablement and health education ($ps = .148-.570$). Compared with the health education, the IADL reablement showed better improvements on the FAI, LIADL, COPM Performance, and difficulty dimension of the PM-3D4D with trivial to small effect sizes ($ds = 0.17-0.45$).

Conclusions and relevance: Our results reveal that the IADL reablement has the potential to increase the frequency of IADL administration, enhancing the capability to perform IADLs and reducing the self-perceived difficulty of carrying out IADLs. Plain-Language Summary: The results of this study showed positive outcomes for a reablement intervention that focuses on goal-oriented instrumental activities of daily living for patients with stroke. An IADL reablement intervention may be useful for improving the ability to carry out IADL tasks at home and in the community.

Presenter : Huang, W. J.

Title : The correlates and reference values for the 6-minute walk distance in Taiwanese adults with schizophrenia

Time : 2024/12/7(Sat.) 15:40~16:00

Room : Briefing Room 2

Citation of the article :

Huang, W. J., Pellegrini, C. A., Chen, M. D., Huang, W. Y., Kao, T., Lee, C. F., & Chien, Y. C. (2023). The correlates and reference values for the 6-minute walk distance in Taiwanese adults with schizophrenia. *Disability and rehabilitation*, 45(21), 3567–3572.
<https://doi.org/10.1080/09638288.2022.2125592>

Purpose: The study aimed to identify the factors associated with the 6-min walk distance (6MWD) and to provide reference values for the 6MWD in individuals with schizophrenia (SCZ) in Taiwan.

Methods: A proportional stratified sampling method was utilized based on distribution of gender, age and body mass index (BMI) at the study hospital. The 6-minute walk test was conducted according to the American Thoracic Society protocol.

Results: A total of 237 patients with SCZ completed the 6-minute walk test. The 6MWD was significantly associated with age, height, weight, and length of the onset of SCZ. Stepwise linear regression revealed that height and age were significant determinants of 6MWD. The reference values for males and females at different age groups were determined. Notably, females over 60 walked substantially shorter than the age younger than 60.

Conclusions: Height and age were the main predictors for 6MWD among people with SCZ in Taiwan. The established reference values can be used to identify those at risk of poor cardiorespiratory fitness and as a target outcome during exercise programs in psychiatric rehabilitation. Our results highlight that older females with SCZ may be a priority group to target with exercise interventions to mitigate the faster decline in cardiorespiratory fitness.

IMPLICATIONS FOR REHABILITATION: Height and age were predictors of 6-min walk distance (6MWD) in schizophrenia (SCZ). The established age- and gender reference values for the 6MWD can be used to identify those at risk of poor cardiorespiratory fitness. Females with SCZ over age 60 may be a priority group to target with exercise interventions to mitigate the faster decline in cardiorespiratory fitness.

Keywords: 6-Minute walk test; cardiorespiratory fitness; functional performance; psychiatric; schizophrenia.