

Presentation Type

10-Minute Paper Session

Should the Planning Committee be unable to accept your abstract as the requested presentation type, would you be willing to present your abstract as a Poster at the conference?

Yes

Presentation Title

Reliability and Sensitivity of the Wheelchair Components Questionnaire for Condition

Presentation Level

Beginner-Intermediate

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Abstract

Wheelchair disrepair and breakdown is known to risk safety and limit mobility. There is an acknowledged need for validated methods to assess wheelchair condition, especially those which would offer easily understandable reports to the public and wheelchair providers. The Wheelchair Components Questionnaire for Condition (WCQc) was developed to be utilized by wheelchair professionals to rate the condition of individual wheelchairs. It includes a question for each of 16 wheelchair components and a question on overall condition. A visual analog scale format was utilized with the goal of producing data suitable for analysis of variance (ANOVA) to discern significant differences between components and types of wheelchairs. School grades were used as anchors to enable the provision of easy to understand reports. Comments were solicited for each component to provide explanatory qualitative information. To assess test re-test and intra-rater reliability 35 professionals with more than two years of wheelchair experience used the WCQc to rate one of two wheelchairs and returned a day later to rate the same wheelchair a second time. Data was suitable for parametric analysis. Intraclass Correlation Coefficients (ICC) indicated high test re-test reliability (ICC = .89), and high inter rater reliability (wheelchair A: ICC = .91; wheelchair B: ICC=.89). ANOVA results indicate that the WCQc was able to distinguish between the condition of the two wheelchairs ($F(1,15)=5.81$, $p<0.001$) as well as the condition of different components ($F(1,15)=23.41$, $p<0.001$). These results support the validity of the WCQc as a reliable and sensitive tool for the assessment of wheelchair condition.

Learning Objectives

1. The participant will gain an understanding of the process by which questionnaires are validated for reliability and sensitivity
2. The participant will gain an understanding of the clinical benefits of easily understood durability information for different types of wheelchairs
3. The participant will gain an understanding of how to use the WCQc to evaluate the condition of a wheelchair