

The influence of fatigue and pain on physical performance of patients with cancer

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Physical dysfunction is a frequent consequence of cancer and its treatments. Improvement of physical function therefore should be a primary goal of treatment; the use of appropriate assessment and outcome measures is fundamental. The purposes of this study were to investigate the psychometric properties of a Japanese language version of Physical Performance Test (PPT) Battery and characterize physical function in patients with cancer referred for rehabilitation.

A total of 105 patients with cancer participated in this study. All patients had a diagnosis of cancer. The subjects completed the Japanese language version of the PPT Battery: the time taken to complete various tasks, the distance walked in 6 minutes, and the distance reached forward while standing were measured. Two self-report questionnaires, one on sensory evaluation of pain and the other on affective evaluation of pain; the Functional Independence Measure (FIM), which evaluates activities of daily living; and Brief Fatigue Inventory (BFI) and European Organization for Research and Treatment of Cancer Quality of Life Questionnaire were simultaneously administered to the subjects. This study was approved by the ethical committee of our institution, and informed consent was obtained from all participants.

The results for reliability showed that the ICC values for inter-rater reliability and intra-rater reliability were 0.89 or more for every item. The results for validity showed significant associations between the scores for all of the items in the Japanese language version of the PPT Battery and total scores for the FIM and BFI.

Significant associations were found between scores for the Japanese language version of the PPT Battery and pain. Pain has a substantial impact of physical performance of patients with cancer. Fatigue also impacts physical performance. Compromised ability to perform certain physical tasks affects quality of life. Further investigation of the roles of these relevant variables is needed.