Validation of the UBD musculoskeletal screening chart for use in health care center

P Senthil, V Sivakumar, S Sudhakar and R Radhakrishnan
Mohamed Sathak AJ College of Physiotherapy, India

Background & Aim: Neck and shoulder pain can be a disabling and recurrent disorders characterized by periods of remission and exacerbation, so too does the prevalence of musculoskeletal dysfunction (MSD). Even the overactive and underactive muscles in the neck region lead to poor performance of upper extremity function also. The upper body dysfunction (UBD) screening chart was developed to assist in the detection of MSD. Although varying musculoskeletal assessment has been used, components of UBD screening chart had combined kinematic analysis and muscular imbalance due to the recurrent problems. Expanding the UBD screening chart use in health care system may improve the detection of MSD allowing for earlier treatment. The primary goal of this study was to evaluate the use of the UBD screening chart in health care by comparing the results of assessments of orthopedic surgeon with those of physiotherapist.

Methods: Patients from 25-45 years old recruited from an orthopedic health center were examined by an orthopedician and a physiotherapist who recorded the appearance of each participant’s posture and the appearance and movement of the shoulder, neck and thoracic spine by deeming them normal or abnormal. UBD scores were compared between the investigators with the proportion of observed (P_{obs}), positive (P_{pos}) and negative (P_{neg}) agreement being the primary outcomes. Kappa statistics were also calculated.

Results: A total of 100 patients consented to participate who were previously diagnosed has MSD. Results showed reasonable agreement between the orthopedician and physiotherapist; P_{obs}=0.698, P_{pos}=0.614 and P_{neg}=0.752. The coefficient of agreement (estimated Kappa) was 0.3675 for the composite UBD score. For individual components of the UBD exam, the highest agreement between orthopedician and physiotherapist was in the assessment of posture and muscle imbalance.

Conclusion: Previously reported recurrent increase in signs and symptoms of musculoskeletal conditions has highlighted the need for a simple yet sensitive screening exam for the identification of musculoskeletal abnormalities. Results of this study suggest that health care practitioners can efficiently use the UBD chart examination in the assessment of populations with a high proportion of musculoskeletal issues.

Biography
P Senthil is currently working as a Professor in Physiotherapy field for past 15 years in both academics as well as hospital sector. He is interested in the musculoskeletal evaluation and its management part which is common issue in the community.

senthilp101010@gmail.com

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