International Journal of Healthcare Education & Medical Informatics
CHETPHYSIOCON 2024 Conference
1-June-2024

Validation of Six- Minute Walk Test Predictive Model Equation of Total Knee Replacement

MonishaS[1], Antony Leo Aseer P[2], Soundararajan K[3]

[1]Post graduate Student, [2]Professor and Principal, [3]Assistant Professor, Faculty of Physiotherapy, Sri Ramachandra Institute of Higher Education and Research, Chennai.

E-mail Id: antonyleo@sriramachandra.edu.in

Abstract

Introduction: Total knee replacement (TKR) is the most common, gold standard surgical intervention in relieving pain, improving physical functions and quality of life in end-stage osteoarthritis.

Method: 82 samples of subjects who underwent TKR post 3 months were recruited using purposive sampling. The values taken in the formula were ROM, Push pull Dynamometer, KOOS and Six-minute walk test and these values were documented. The Predictor model equation for 6MWD at 3 months is calculated and is compared with the Six-minute Walk test Distance covered by the subject. The Validity (Concurrent validity) of the Predictor model equation for 6MWD is evaluated.

Result: Upon validating, the predictor model equation for 6MWD was found be effective and same as the 6MWT. By using the intraclass correlation coefficient, between the 6MWT and the Predictor model equation for 6MWD indicates the satisfactory concurrent validity. By using this formula, the distance covered can be calculated without using the 6MWT.

Conclusion: In this study, a predictor model for the 6MWD at 3 months is validated and it can be used clinically by the therapist instead of the 6MWT. Thus, the Predictor model equation for 6MWD can be deployed to know the walking distance covered by the subject in 6 minutes for individuals who underwent TKR post 3 months.