

Effectiveness of Tailored Tele-Rehabilitation on Functional Capacity, Balance, And Quality of Life in Pediatric Kidney Transplant Recipients: A Pilot Controlled Clinical Trial

Dr. Eva Katba*, Dr. Harda Shah

IKDRC-ITS College of Physiotherapy, Civil hospital campus, Ahmedabad-16

*Corresponding author

ABSTRACT

Introduction: Pediatric recipients after successful kidney transplant encouraged to return to normal life as they are in growing phase and had physical inactivity during dialysis period. However, even after surgery chronic use of immunosuppression and physical inactivity negatively affects functional capacity, balance, and quality of life (QOL). Exercise training appears to be safe and promising in this population. Therefore, the primary aim of this study was to explore the effects of tailored tele-rehabilitation on QOL and functional capacity in pediatric patients with KT.

Method: Total eight children with stable graft function with minimum 1 year of transplantation from one of the tertiary hospitals of western India were randomly allocated into two groups with enveloped method: standard care (SC) and tele-rehabilitation group (TRG). The SC group received standard care with no change of their regular activities. TRG received tailored tele-rehabilitation as playful activity (agility endurance and resistance exercises) for 45 minutes twice a week for six weeks. Outcome measures includes KINDL questionnaire, 10 repetition maximum, pediatric balance scale and six-minutes walking test (6MWT) to assess quality of life, muscle strength (quadriceps group) and functional capacity respectively.

Result: There were statistically significant improvements in the post-test quality of life (mean±SD: 117.5±2.08, $p<0.05$), 6MWT (mean±SD:480±42.8, $p<0.05$) and muscle strength (mean±SD:5.5±0.88, $p<0.05$) in TRG except balance. The post-test comparison between the two groups revealed significant difference in favor of TRG in all measured variables ($p<0.05$).

Conclusion: Tailored Tele-rehabilitation contributed to the improvement of quality of life and functional capacity in pediatric patients with kidney transplantation.

Keywords: Tele rehabilitation, Balance, quality of life, Pediatric kidney transplant patients

