Other Reviews - - Other Review

A systematic review to explore how exercise-based physiotherapy via telemedicine can promote health related benefits for people with cystic fibrosis.

Code: PM36848358 **Year:** 2023 **Date:** 2023 **Author:** Bowhay

Study design (if review, criteria of inclusion for studies)

Systematic review

Participants

People with Cystic Fibrosis (CF). The databases AMED, CINAHL and MEDLINE were searched from December 2001 until December 2021. Studies of any design reported in the English language

Interventions

Physiotherapy exercises delivered via telemedicine. Telemedicine-based interventions included Tai-Chi, aerobic, and resistance exercise delivered over a study period of six to twelve weeks.

Outcome measures

Percentage predicted forced expiratory volume in one second found. Cystic Fibrosis Questionnaire-Revised (CFQ-R) respiratory. Adverse events

Main results

Eight studies with 180 total participants met the inclusion criteria. Sample sizes ranged from 9 to 41 participants. Research designs included five single cohort intervention studies, two randomised control trials and one feasibility study. Five studies measuring the Cystic Fibrosis Questionnaire-Revised (CFQ-R) respiratory domain found improvements, however, did not meet statistical significance. For the CFQ-R physical domain, measured by five studies, two studies found an improvement, although not statistically significant. No adverse events were reported across all studies. The included studies indicate that telemedicine-based exercise over 6-12 weeks does not significantly change lung function or quality-of-life in people with CF.

Authors' conclusions

Whilst the role of telemedicine in the care of pwCF is acceptable and promising; further research with standardised outcome measures, larger sample sizes and longer follow-up are required before clinical practice recommendations can be developed.

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See also

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Keywords

Exercise; non pharmacological intervention - devices OR physiotherapy; Counseling; Psychoeducation; non pharmacological intervention - psyco-soc-edu-org; telemedicine; training;