Economic evaluations of digital health interventions for the management of musculoskeletal disorders: a systematic review

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Introduction

- Musculoskeletal disorders (MSDs) are widespread in many countries and include a wide range of inflammatory and degenerative conditions affecting the muscles, ligaments, joints, tendons, peripheral nerves, and supporting blood vessels.
- MSDs comprise different disorders, most of which affect people's ability to carry out normal activities.
- Digital health interventions are commonly used for individuals with MSDs, however, no study has synthesised the findings of cost effectiveness of these interventions.

Purpose

- This study was aimed to synthesise the cost-effectiveness of digital health interventions for people with MSDs.

Methods

Prospero registration: CRD:42021253221

Database: Medline, AMED, CIHAHL, PsycINFO, Scopus, Web of Science, and Centre for Review and Dissemination databases were searched up to May 2021.

Inclusion: Economic evaluations (cost-effectiveness, cost-utility, cost-consequence, and cost-benefit analysis) performed in adult population with musculoskeletal conditions; any form of digital health intervention delivered through websites or app and the comparators weith no intervention, standard care or any other digital intervention.

Exclusion: Studies containing both digital and non-digital health intervention, study protocols, case studies/discussion papers, pilot studies, conference abstracts, and studies where the ICER were not calculated..

Study quality assessment: Methodological quality of the included studies was assessed using the criteria listed in the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement for the cost-effectiveness.

Data analysis: Data were synthesised through a narrative review.

Results

- Ten studies from six countries met the inclusion criteria.
- The average percent of CHEERS checklist items reported was 70.4%.
- Included studies were on non-specific chronic low back pain (n = 4), chronic pain (n = 2), knee and hip osteoarthritis (n = 3) and Fibromyalgia (n = 1).
- The economic perspectives adopted in the included studies were societal (n = 4), societal and healthcare (n = 3) and healthcare (n = 3).
- Of the ten included studies 5 (50%) of them used quality-adjusted life years as the outcome measures.
- Except one study, all the included studies reported that digital health interventions were cost effective compared to the control group.

Conclusions

- The findings of the review show that digital health interventions are cost-effective.
- This suggests that digital health intervention could help improve access to treatment for patients with MSDs and as a result improving their health outcomes.
- Clinicians and policy makers should consider the use of these interventions for patients with MSDs.

Reference

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