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Rotator cuff related shoulder pain. Describing home exercise adherence and behavior change interventions: A systematic review of randomised controlled trials

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Keywords: Behaviour change; Adherence; Exercise

Purpose: A home exercise programme (HEP) is integral in the management of rotator cuff related shoulder pain (RCRSP) (Lewis, 2016). There are, however, significant challenges for persons adopting HEPs, and for clinicians in measuring and promoting HEP adherence (McClean et al., 2017). Understanding the adherence rates to HEPs and the strategies used in randomised controlled trials (RCTs) to promote HEP adherence is important in order to interpret the existing evidence for the use of HEPs in the management of RCRSP.

The aim of this systematic review was to report and synthesise home exercise adherence, and strategies to promote home exercise adherence, in RCTs in order to understand the limitations of the current evidence base and make recommendations for clinical practice and future research investigating the use of HEPs in the management of RCRSP.

Methods: An electronic search of EMBASE, MEDLINE, PubMed, CINAHL, AMED, and CENTRAL was undertaken. Methodological quality was assessed using the Cochrane RoB 2.0, and reported adherence rates to HEP and strategies to measure adherence were assimilated. Behaviour change (BC) techniques were coded from the intervention descriptions in all associated trial publications in accordance with the behaviour change technique taxonomy (version 1) (Michie et al., 2013).

Results: Seventeen RCTs were retrieved. Twelve (71%) of the 17 studies did not mention adherence rates to the prescribed HEP, despite the HEP comprising the major component of the exercise-based intervention. Four (24%) studies defined which parameters of adherence were measured. The included studies described between three and 15 BC techniques; the mean number per study was 5.8. Two studies (12%) described offering participants an explanation of how the HEP might help their symptoms resolve.

Conclusion(s): Understanding HEP adherence is important in order to determine the efficacy of HEPs in the management of RCRSP. Poor reporting of adherence and the under-utilisation of BC interventions to promote HEP adherence was prevalent in the included RCTs. Many authors either failed to report HEP adherence, or reported poor or unknown adherence. The mean number of BC techniques employed in the studies was low and may be due to limited experience and knowledge of BC techniques, or poor reporting of these interventions.

Impact: It is recommended that clinicians and researchers: consider a wide variety of behaviour change techniques to promote adherence with HEPs; consider the use of objective, patient self-reported, and clinician-assessed measures of adherence when prescribing HEPs; and carefully consider and define the parameters of HEP adherence they wish to record (for example completed sets, days exercised, days fatigue reached). Recommendations for researchers include the explicit reporting of BC interventions, and it is strongly recommended that when HEP is compared with an intervention that is more invasive, more costly and less safe, the level of adherence in both arms of the study is recorded and reported with equal rigour.

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Supporting survivorship after critical illness: A service improvement project at a large teaching hospital

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Keywords: Survivorship; Rehabilitation; Person-centred

Purpose: The high physical, cognitive and psychosocial needs of ICU survivors and importance of post-critical care rehabilitation, is reflected in national standards and guidelines. We aim to establish a service that meets these.
Objectives:

To provide person-centred care.

To provide continuity of care with a consistent multidisciplinary team (MDT).

To provide daily targeted rehabilitation throughout acute hospital admission.

To provide appropriate post-discharge support.

Methods: In May 2020 a Critical Care Recovery service was established at the Royal Infirmary of Edinburgh, in line with the Scottish government framework for recovery and rehabilitation during and after the Covid-19 pandemic. All individuals were triaged onto different pathways at point of critical care discharge, with those on the 'Complex ICU recovery, including Covid-19' pathway receiving dedicated MDT input from Intensive care, Psychiatry and Rehabilitation medicine consultants, Allied Health Professionals (Physiotherapy, Occupational therapy, Speech and Language Therapy, Dietetics), nursing and assistant staff. Service improvement work took place over the course of a year, using patient feedback, data collection on service provision and patient outcomes, and audit against national guidelines. Change management principles were implemented throughout, in order to embed and sustain the change. Key elements of the service include:

- weekly goal-orientated MDT meetings
- daily tailored physiotherapy input
- trips outside prioritised and incorporated into rehabilitation
- liaison with community hubs and primary care
- selected review at MDT outpatient clinic

Results: High rates of patient satisfaction were reported during semi-structured telephone feedback. Individuals reported feeling involved in decisions regarding their care. They particularly valued staff continuity across critical care, the ward and post-discharge. In-reaching into critical care contributes to early rehabilitation, coordinated approaches to weaning and eases the often-challenging transition to the ward following critical illness. From May 2020–February 2021, patients received an average of 1.05 physiotherapy sessions per day on weekdays they were medically fit for physiotherapy intervention. 87% of patients were independently mobile (unaided or with a simple mobility aid) prior to leaving the Royal Infirmary, and 69% of patients were discharged directly home from hospital. Post-discharge support is provided through follow-up telephone calls and selected review at an outpatient follow-up clinic 3-months post hospital discharge. This face-to-face clinic is run in a carousel format with the whole MDT present.

Conclusion(s): This service meets quality indicators and standards for patients recovering from critical illness. On average patients receive daily physiotherapy input from a dedicated team, within 24 h of critical care discharge, until hospital discharge. We do not have a baseline for comparison, however, patients with rehabilitation needs are prioritised in the lowest category, in this and other acute settings. Continuity and specialist expertise throughout acute admissions improves the quality of care provided. Audit works indicates subsequent quality improvement work should focus on strengthening community links, consistent outcome measure use, and review the identification, timing and documentation of goals to better tailor rehabilitation interventions.

Impact: This model of service delivery is permanently funded from April 2021, and we intend to research its impact on longer-term outcomes. Similar models could be implemented in other institutions.

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The development of a complex intervention to support exercise self-management for people with Parkinson's

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Keywords: Parkinson's; Self-management; Exercise

Purpose: The value of exercise for people with Parkinson's (PwP) is undisputed, and is associated with improved health outcomes and potential to slow down the rate of symptom decline. However, the optimum means to support long-term participation in exercise remains undetermined. Current exercise provision within physiotherapy is commonly time limited. Moreover, research has shown that when current services cease, adherence declines and the effects on outcomes diminish. Therefore, a sustainable means of maintaining activity, beyond the end of normal physiotherapy care, is required, which necessitates a different approach to support People PwP to be more active.

Aims: To develop an evidence based intervention to equip PwP to self-manage their exercise participation.

Methods: A multi-step mixed methods approach was adopted. A systematic review of the literature exploring barriers and motivators to exercise and a comprehensive review of the exercise literature for PwP was conducted. Consultation with a convenience sample drawn from UK wide specialist physiotherapists and the Parkinson's community was conducted to explore barriers and facilitators to exercise delivery and participation. The findings were used to inform the development of a multi-component intervention aimed at promoting exercise self-management. PwP were involved in refining the intervention.

Results: The literature review identified that simply prescribing exercise in isolation is ineffective to promote long-term changes in exercise behaviour. Amalgamating findings from the systematic and comprehensive literature reviews with consultation finding identified key ingredients to support long-term exercise self-management were iden-