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# Clinical and cost-effectiveness of a physiotherapy Case Management service for back pain

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## INTRODUCTION

Back pain is the most common musculoskeletal condition in the UK, affecting 30% of the adult population [1]. It is associated with functional limitation, reduced quality of life, anxiety and depression and is the leading cause of productivity loss [2]. A new and innovative way of delivering clinically and cost-effective measures was required in the private sector, a physiotherapy led Case Management (CM) service has been developed. The aim of the service is for clients with back pain to receive fast access to advice and the appropriate treatment. CM is a relatively new area for physiotherapists to be involved in within the UK, as such, there is a lack of evidence regarding its clinical and cost-effectiveness.

**Objectives:** To evaluate the clinical and cost-effectiveness of a physiotherapy CM service for back pain.

## METHODOLOGY

**Design:** An observational cohort study based on prospective data collection of patient-reported outcome measures (PROM), patient reported experience measure (PREM), and data collection from an existing database.

**Participants:** Consecutive referrals into the CM service over a three-month period.

**Interventions:** Participants were managed within the service in accordance with usual pathways.

**Main Outcome Measures:** PROMs included EQ-5D-5L and PSFS. The PREM used was the CARE questionnaire. PROM measures were taken at baseline and repeated at the point at which the client's case was closed. The CARE satisfaction questionnaire was administered on closure of the client's case.

**A cost consequence analysis:** was completed using existing data for the same period of time in two separate years; 2011 (pre-CM) and 2014 (post-CM).

**Data Analysis:** Descriptive analysis was undertaken using means and standard deviation. Changes between baseline and follow-up were assessed using Wilcoxon Signed Rank test. The significant value was  $p < 0.05$ .

## RESULTS

There was a statistically significant improvement in quality of life (EQ-5D-5L  $p < 0.0001$ ; EQ-VAS  $p < 0.001$ ) and functional ability ( $p < 0.001$ ) following the Physiotherapy Case Management (Table 1).

The CARE measure showed high levels of patient satisfaction with 96% of clients rating their individual case manager as good to excellent.

The cost consequence analysis showed a cost reduction in therapy resource used by £252 842 (from £10 772 875 to £10 520 034).

**Table 1. Outcome measure analysis**

Outcome	Pre-intervention		Post-intervention		p-value
	Median	IQR	Median	IQR	
EQ-5D-5L (QoL) (max 1.00)	0.6476	0.21	0.7357	0.15	< 0.0001
EQ-VAS % (perceived improvement) (max 100%)	60	20	75	21.25	< 0.0001

## CONCLUSIONS & RECOMMENDATIONS

The Case Management Service showed the provision to be providing significant improvement in quality of life and functional outcomes within efficient use of resources, and service users are highly satisfied with their experience.

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