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Specific timely appointments for triage reduced waiting lists in an outpatient physiotherapy service

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Abstract

Objectives Waiting lists with triage systems are commonly used in outpatient physiotherapy but may not be effective. Could an alternative model of access and triage reduce waiting times over a sustained period with no additional resources?
Design Observational study comparing retrospective data for 11 months prior to the introduction of a new model of access compared with data for the equivalent 11 months afterwards.
Participants Patients referred to a physiotherapy outpatient department at an outer metropolitan hospital before ($n = 721$) and after ($n = 707$) the introduction of the new model.
Intervention A model of access and triage known as 'specific timely appointments for triage' (STAT), in which appointment slots are preserved in advance specifically for new patients based on calculation of average demand.
Outcome measures Time from referral to first assessment, number of appointments per patient, occasions of non-attendance and total length of stay in the service.
Results Median time from referral to first appointment was 18 days [interquartile range (IQR) 11 to 33 days] in the pre-intervention group, compared with 14 days (IQR 9 to 21 days) in the post-intervention group ($P < 0.01$). The number of physiotherapy appointments also reduced (IQR 2 to 6 vs IQR 1 to 4; $P < 0.01$). There were no changes in non-attendance rates or total time in the service.
Conclusion Waiting time for outpatient physiotherapy was 22% lower in the year following the introduction of the STAT model. While acknowledging the limitations of a pre- and post-measurement design, this model may have potential for reducing waiting times for outpatient physiotherapy without additional resources.

Keywords: Ambulatory care; Triage; Waiting lists; Appointments and schedules; Health services accessibility

Introduction

Musculoskeletal disorders are a leading cause of chronic health problems, disability and healthcare utilisation [1]. Physiotherapists provide an effective treatment option for many causes of musculoskeletal pain and dysfunction [2]. However, patients referred to outpatient physiotherapy services in Australia, the USA and Canada often face long waiting times for treatment [3–5]. Triage systems are used widely to prioritise patients on waiting lists for these services, typically using protocols to organise referrals into categories based on features such as acuity, referral source or order of presentation [3–6]. However, triage systems for allied health services frequently lack reliability and do not always result in waiting time reductions [7,8], perhaps due to the high degree of subjectivity inherent in making decisions about patient priority for health care [9], and sometimes leave patients in the lowest-risk categories with no access to services at all [10]. Tasks associated with managing waiting lists, such as triaging and monitoring changing needs of patients, can also divert resources from frontline care [11]. Injections of resources

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to temporarily boost supply of health services without a subsequent change in service delivery often only have short-term effects; waiting lists tend to grow back over time if the underlying issues that enable their development are not addressed [12].

There is preliminary evidence that an alternative to the traditional 'waiting list and triage' model, known as 'specific and timely appointments for triage' (STAT), has benefits in managing access and triage for ambulatory services [13]. The STAT model requires clinicians to schedule a specified number of appointments for triage and assessment of new referrals in their weekly schedule, based on systematic analysis of supply and demand. All patients are assessed face-to-face with a treating clinician in the first available time slot, and the clinician then prioritises the patient within the context of his/her caseload. Unlike traditional triage systems, clinicians are able to consider the relative priority of both new patients and those already under their care. The system drives clinicians to seek efficiencies in patient management and make decisions in response to demand. Triage is done by people at the point of service delivery with options for management, and is flexible and based on clinical judgement. The STAT model has been shown to be successful in community rehabilitation, reducing waiting times by 40% without any additional resources [13].

A publicly funded metropolitan hospital in Melbourne, Australia provides outpatient physiotherapy services to patients with a variety of musculoskeletal conditions affecting physical function. Patients referred to the service and allocated to lower-risk triage categories have often faced waiting times of up to several weeks for an initial appointment. In the first half of 2013, these waiting times had increased to a point at which the physiotherapy staff felt that they were unacceptable and compromising patient care. Like others of its kind [4], the service had historically placed new patients on to a waiting list and then used a protocol-based triage system to guide decisions about patient priority. Clinicians would focus primarily on treating the patients under their care and refer back to the waiting list when new appointments became available, using appointed triage categories to help the physiotherapists to decide which patient should be booked in next. Recognising that waiting times were an ongoing problem under the existing system, a decision was made to introduce the STAT model in July 2013.

The aim of this retrospective audit was to evaluate the impact of change in action following the introduction of the STAT model. The primary objective was to determine whether patients had a shorter waiting time for their first appointment in the year following the change compared with patients referred in the year before the change. Secondary aims were to determine whether the change in action may have had an impact on other aspects of service delivery, including the total number of appointments per patient, time from first to last appointment and failure-to-attend rates.

Methods

An action research methodology was used to evaluate the effect of a change in action to the procedures associated with access and triage for patients referred to an outpatient physiotherapy service. A retrospective audit of data collected by the physiotherapy service for patients commencing treatment with the physiotherapy service between 1 August 2012 and 30 June 2013 (pre-intervention period) and 1 August 2013 and 30 June 2014 (post intervention period) was conducted. Audit data included demographic information (age, sex, diagnosis code); dates of referral, and first and final appointments; total number of appointments attended; and number of missed appointments. The intervention was introduced in July 2013; this month was treated as a 'wash-in period' during which no data were included.

Setting

The study was conducted in a publicly-funded outpatient physiotherapy department with two part-time physiotherapists, providing the equivalent of 1.1 full-time clinicians: one senior therapist with more than 15 years of experience, and a junior therapist rotating through the clinic every 4 months. Patients are referred for treatment of musculoskeletal disorders, primarily from other services within the hospital including orthopaedic outpatient clinics or on discharge from an episode of inpatient care. The physiotherapists provide a combination of assessment, clinical advice, home exercise programmes and a variety of therapeutic interventions as required. The project was approved by the institution's Human Research and Ethics Committee.

Intervention: the STAT model

The STAT model has been described in detail elsewhere [9,13], and compared with the traditional 'waiting list and triage' model. The key element of the STAT model is the creation and protection of a set number of new appointments each week for new patients, calculated to correspond with average demand. In preparation for the introduction of the STAT model, the average number of new referrals per week was calculated and inflated by approximately 12% to compensate for appointments that would not be available in any given week due to staff absence or irregular non-clinical activities. Given that no additional resources were available to manage the backlog of patients already on the waiting list, staff accepted new patients on to their caseloads in addition to their calculated allocation of new patient appointments during the first few weeks following the change to gradually reduce the backlog of waiting patients.

Inclusion criteria

Referral and waiting time data were included for all patients referred to the service during the inclusion periods, with the exception of patients referred to the service from

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