The Bridge Between Theory and Practice for Supporting Patient Self-Management: A Clinical Perspective for Physiotherapists

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ABSTRACT

Self-management behaviours, if constructively used, can assist people with long-term conditions to manage their health and well-being more effectively. The role of clinicians is to provide support for patient self-management because we know that incorporating constructive behaviours into daily life can be challenging for patients. The aim of this paper is to provide an opportunity for clinicians to understand how the content and delivery of interventions could support patient self-management. In this paper, we therefore highlight a number of theoretical frameworks that may assist clinicians to explicitly identify components of their interactions with patients. As an illustrative example, we use a self-management programme for fatigue, developed with people with multiple sclerosis (MS) in New Zealand. We believe that with a better understanding of behaviour change processes, clinicians have an opportunity to see the full range of behaviour change techniques (BCTs) available to them and how these could be used, to think more carefully about the BCTs they embed in their practice and, therefore, to critically reflect on how they could better support patient self-management.

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INTRODUCTION

As clinicians we often notice patterns of behaviours in ourselves that are potentially detrimental to our own health. We also know, however, that self-management behaviours, if constructively used, can assist us to manage our health and well-being effectively. This is also true for people with long-term conditions. Yet we know only too well that incorporating constructive behaviours for self-management into daily life is challenging (Harvey et al., 2015; Jerant et al., 2005; Kralik et al., 2004; Wilkinson et al., 2014). Our role as clinicians is to provide support to patients toward self-management. Thus, an important aim for clinicians is to understand how to best support patients to develop and include self-management behaviours into their daily lives. In a guest editorial of the New Zealand Journal of Physiotherapy, Mulligan (2019) argued that efficacy of physiotherapy interventions could be improved through incorporating patients' preferences and contexts into physiotherapy interventions.

Abraham, Michie and colleagues present a growing body of research about theory, and understanding of behaviour and behaviour change, specifically as these relate to health interventions. This has included development of the Behaviour Change Wheel, which incorporates the Capability, Opportunity and Motivation for Behaviour (COM-B), a framework for characterising and designing behaviour change interventions (Michie, van Stralen, & West, 2011). The COM-B system proposes that for a person to achieve behaviour change, the individual requires capability for the behaviour, opportunity for the behaviour change, and motivation to change the behaviour in order to achieve success in changing their behaviour (Michie, van Stralen, & West, 2011). Michie and colleagues' work has also included the Theoretical Domains Framework, an integrative theoretical framework developed for behaviour change research (Cane et al, 2012). Furthermore, they have developed a formal system to characterise components of interventions, and have explained how to link these with the context for delivery of each component within an intervention (Michie et al., 2013; Michie, van Stralen & West, 2011). The intent of this body of work has been to facilitate understanding of the behaviour change processes that underpin effective behavioural interventions. Thus, development of the Behaviour Change Wheel and Theoretical Domains Framework can assist clinicians to explicitly understand the theory/theories underpinning self-management

interventions. There are a number of examples in the literature that illustrate the use of frameworks for identifying behaviour change strategies used in various health interventions. These include programmes for smoking cessation (Michie, Churchill, & West, 2011), care for patients with sepsis in a hospitalised setting (Steinmo et al., 2015), physical exercise for health in the motivation and volition (MoVo) model (Fuchs et al., 2011), and the health action process approach (Schwarzer, 2008).

We use an illustrative example – a self-management programme for fatigue developed with people with multiple sclerosis (MS) in New Zealand (Mulligan et al., 2015; Mulligan et al., 2017) – to highlight use of these theories. Through gaining an understanding of how theoretical frameworks might inform and underpin interventions and interactions with patients, we hope this paper will prompt clinicians to critically reflect on the range of behaviour change techniques (BCTs) they routinely use in their practice, and how other techniques could be usefully selected, introduced, and applied to better support patient self-management.

METHODS

The Template for Intervention Description and Replication (TIDieR) framework was developed to improve the reporting of interventions (Hoffman et al., 2014). This framework allows identification of the programme elements (the "what"), the rationale for the programme elements (the "why"), the mode of delivery (the "how"), the programme facilitator (the "who"), and when and how much or how often a programme element occurs (the "when"/"how much"). To examine how the self-management programme for fatigue in MS supported patient self-management, we collected data from three sources: document analysis, observation and participation, and interviews and discussion.

Document analysis

We read two manuals associated with the programme (the facilitators' manual and participants' workbook), and published research about the programme (Mulligan, Wilkinson, Barclay, et al., 2016; Mulligan et al., 2015; Mulligan, Wilkinson, & Snowdon, 2016; Mulligan et al., 2017). From these sources, we extracted and tabulated data about the programme content and its method of delivery.

Observation and participation

Three of the authors (HM, AW & KP) participated in a training course with nine other healthcare professional facilitators who wished to deliver the programme. We took field notes about our observations, the type and nature of questions asked by new facilitators, and how these were discussed and answered. We, thus, reflected on the training content of the programme and how delivery of the programme was modelled by the trainer.

Interviews and discussion

One author (AW) undertook three semi-structured interviews with JS, who was the trainer of new facilitators for the programme. Topics discussed and then documented were: a) the general and specific goals of the programme, b) the weekly goals of the programme, c) the topics included in the programme, d) allowances for individual and group reflections undertaken by programme attendees, and e) self-management strategies practiced, encouraged, and discussed during the programme.

RESULTS

To create an outline of the elements within the self-management programme, we drew from the three data sources and categorised these onto the TIDieR framework. Through this process, we identified that the fatigue self-management programme consisted of the following elements: a) licensing of healthcare professionals; b) training of healthcare professionals to facilitate delivery of the programme; c) a facilitator training manual; d) registration of attendees to the programme; e) a workbook for the programme; and f) standardised questionnaires of fatigue and self-efficacy, and a programme evaluation questionnaire. Table 1 details the elements of the self-management programme.

Table 1

Fatigue Self-Management Programme Elements Based on the TIDieR Framework (Hoffman et al., 2014)

Programme elements (what)	Rationale (why)	Mode of delivery (how)	Facilitated by (who)	When/how much
Licensing of HCPs	To collect contact and demographic details To ensure HCP has experience with patients with MS and is supported by local MS Society To reinforce licensing requirements – ongoing training and reflection	Documents	MS Society of the region	Pre-training – 2 yearly
Training of HCP for delivery of programme	To familiarise facilitators with programme content To explain principles of self-care, role model facilitation of the programme, and educate about working with groups	Face to face	HCP training – physiotherapist/ trainer	HCP – intensive two-day group course

Programme elements (what)	Rationale (why)	Mode of delivery (how)	Facilitated by (who)	When/how much
HCP facilitator training manual	To provide consistent information for education/training To provide written education/documentation for future reference	Documents	Physiotherapist / trainer and HCP group	Used while on course and during delivery of the programme
Registration of attendees and attendance at the programme	To collect contact details for communicating with attendees To collect demographic details for reporting/ statistical purposes	Documents	HCPs collect and send to MS Society	Pre-programme
	To empower individuals to develop self-determination and self-confidence for intrinsic motivation of daily management of fatigue	Face to face	Participant programme – registered HCPs trained to facilitate programme	Participants – 2 hrs weekly for six weeks
Workbook (plus weekly diary forms)	To provide consistent information for group sessions To stimulate group discussion To provide written education/documentation for future reference To facilitate written reflection around current behaviour and potential action to achieve behaviour change	Documents	Participant, group, and HCP	Used while at programme and at home
Questionnaires	To provide feedback for attendees regarding levels of self-reported fatigue and self-efficacy pre-/post-programme attendance To provide data for audit and fidelity purposes	Documents	Participant, HCP	Pre- and post-programme
	To enable attendee and HCP feedback on programme delivery and content	Documents	HCP, physiotherapist / trainer	Post course and programme

Note. HCP = healthcare professional; MS = multiple sclerosis.

Drawing on our three data sources, we then identified and categorised the BCTs in the programme (Michie et al., 2013). As outlined by Michie and colleagues, we grouped the categories and associated BCTs to identify how the BCTs were operationalised within the programme (Michie et al., 2013), and then linked these to the "intervention functions" according to the Behaviour Change Wheel (Michie, van Stralen, & West, 2011). The Behaviour Change Wheel (Michie, van Stralen, & West 2011) and its intervention functions allows for identification of the link between a BCT and how it is delivered or packaged. Lastly, we identified the mechanisms of action of the programme content (i.e. the descriptions of key intervention components) by mapping the BCTs and their corresponding "intervention functions" to the COM-B system (Michie, van Stralen, & West, 2011) and to the Theoretical Domains Framework (Michie et al., 2005) described by Cane et al. (2012).

In Table 2, we present components of the first week of the self-management programme, how we believe these were operationalised in the programme, and their corresponding intervention content and mechanisms of action. The table shows each identified BCT linked to one or more "intervention functions". It also shows where the "intervention functions" link to the underlying mechanisms of action in the COM-B system and in the Theoretical Domains Framework.

DISCUSSION

By undertaking this process, we have been able to identify and make explicit how the self-management programme theoretically supports behaviour change via a complex network of strategies. We found that many of the BCTs in the programme content link to more than one of the "intervention functions", and that "intervention functions" then link to more than one of the "mechanisms of action" in the COM-B system.

Table 2

Introduction to Fatigue Self-Management Programme – Summarising Programme Components and how they are Operationalised in the Programme, Intervention Content and Mechanisms of Action for Week 1 of the Programme

Programme component and how operationalised in programme	Programme content	Mechanisms of action		
	Grouping and associated BCTs	Intervention functions	COM-B	Theoretical Domains Framework
Week 1 Introduction				
Role of the facilitator – to set the scene, build group trust and rapport, establish ground rules for attending the programme	Provide a positive, friendly and professional relationship and environment	Environmental restructuring Incentivisation	Psychological capability Reflective motivation Physical opportunity	Behavioural regulation Optimism Intentions Environmental context and resources
Introduce and discuss concepts of self-management Examine and acknowledge the experience and expertise of the group as a whole Complete a standardised self-efficacy scale	13 Identity 13.1 Identification of self as role model 15 Self-belief 15.1 Verbal persuasion about capability 15.3 Focus on past success 2.7 Feedback on outcome(s) of behaviour	Environmental restructuring Modelling Persuasion Enablement	Psychological capability Reflective motivation Social opportunity	Knowledge Skills Memory, attention and decision processes Behavioural regulation Social role and identity Beliefs about capabilities Social influences
Education about fatigue Acknowledge, discuss and examine fatigue, its causes and effects via group reflection on fatigue, and own personal behaviour and impact of fatigue on personal life Complete a standardised fatigue scale Goal setting and communicating about fatigue	5 Natural consequences 5.1 Information about health consequences 9 Comparison of outcomes 9.1 Credible source 9.2 Pros and cons 9.3 Comparative imagining of future outcomes 2.7 Feedback on outcome(s) of behaviour 13 Identity 13.1 Identification of self as role model 13.2 Framing/reframing 13.3 Incompatible beliefs	Environmental restructuring Education Modelling Persuasion Enablement	Psychological capability Reflective motivation Social opportunity	Knowledge Skills Memory, attention and decision processes Behavioural regulation Social role and identity Beliefs about capabilities Social influences
Group discussion of stories/anecdotes in workbook that identify others' experiences about managing fatigue in daily life and work, and communicating about fatigue with significant others (e.g. family/friends, work colleagues)	5 Natural consequences 5.1 Information about health consequences 5.2 Salience of consequences 5.3 Information about social and environmental consequences 6 Comparison of behaviour 6.1 Demonstration of the behaviour 6.2 Social comparison 6.3 Information about other's approval	Environmental restructuring Modelling Training Persuasion Enablement	Social opportunity Psychological capability Reflective motivation Physical capability	Social influences Knowledge Skills Memory, attention and decision processes Behavioural regulation Social role and identity Beliefs about capabilities Optimism

Programme component and how operationalised in programme	Programme content		Mechanisms of action	
	Grouping and associated BCTs	Intervention functions	COM-B	Theoretical Domains Framework
Decide and record personal goals for completion of a fatigue diary and communication about fatigue with significant others (e.g. family/friends, work colleagues) Sharing goals with group	1 Goals and planning 1.1 Goal setting (behaviour) 1.2 Problem solving 1.3 Goal setting (outcome) 1.4 Action planning 1.5 Review of behavioural goal(s) 1.6 Discrepancy between current behaviour and goal 1.8 Behavioural contract 1.9 Commitment	Environmental restructuring Incentivisation Enablement	Automatic motivation Reflective motivation Social opportunity Psychological capability	Emotion Behavioural regulation Social role and identity Beliefs about capabilities Optimism Beliefs about consequences Intentions Goals

Note. Numbered BCTs in the column "Grouping and associated behaviour change techniques" correspond to the numbered BCTs provided by Michie et al. (2013) in their electronic supplementary material. BCTs = Behaviour change techniques; COM-B = Capability, Opportunity and Motivation for Behaviour framework.

Likewise, the "mechanisms of action" in the COM-B system link to more than one of the behaviour determinants of the Theoretical Domains Framework. Although we have undertaken the process for the full programme, for the purposes of this paper, we discuss below only the "intervention functions" of "education" together with "environmental restructuring", "persuasion", "modelling" and "enablement" inherent within the first week of the fatigue self-management programme.

The literature is clear that provision of education to patients with the aim of knowledge transfer is insufficient to facilitate sustained behaviour change (Corace & Garber, 2014; Kelly & Barker, 2016; Ng et al., 2012; Thompson et al., 2006). Through undertaking a systematic process to identify programme components, BCTs, and their mechanisms of action as we have described here, we show that the programme uses a variety of "intervention functions" (not only education) to support development of self-management. While the "intervention function" of "education" enabled attendees to examine fatigue from a wider perspective than they may have done previously, use of "environmental restructuring", actioned by bringing a group of attendees with a similar focus together, would facilitate attendees to learn from others in the programme by drawing on their experiences and expertise. This approach aligns with existing research supporting use of multiple BCTs within a programme as being more effective in the long-term than a single technique, such as education only (Fuchs et al., 2011; Michie, Churchill, & West, 2011; Schwarzer, 2008). The fatigue self-management programme used as an example in this paper also included "intervention functions of "persuasion", "modelling" and "enablement", achieved via attendees being invited and facilitated (i.e. through having time, space, and concentrated effort) to compare and reflect on their own past negative and/or positive experiences of fatigue self-management, to reflect on the experiences of other attendees in the programme, and to reflect on affirmative stories by people with MS illustrated in the workbook. Overall, through these three functions, we show how programme attendees could develop an individual and preferred plan of action for self-management.

The TIDieR framework facilitates identification of the programme elements, which are described above. We suggest that clinicians could unpack, critique, and reflect on their practice, for example by videoing an intervention with a patient, and then examining the footage to see what they have incorporated and delivered. They could identify the specific BCTs they have used by comparing these with the list provided by Michie et al. (2013), much like we have done here. By comparing the specific BCTs they have used with the COM-B system, clinicians would gain a clearer understanding of the modus operandi of their practice.

While programmes and clinical interactions contain many potential BCTs, identifying which of these or which combinations have most effect is, nevertheless, a challenge for researchers. Indeed a scoping review with 135 individual studies aimed to identify BCTs for reducing excessive alcohol consumption (Michie et al., 2012). The authors drew only weak conclusions about effectiveness of any specific or combination of BCTs because of the plethora of study methods and combinations of BCTs used within the individual studies. Furthermore, there is still work being undertaken to understand the links between BCTs and how they work.

CONCLUSION

Through this clinical perspective we explore frameworks and tools like the TIDieR, the Theoretical Domains Framework and the COM-B system, which can be used to reflect on the range of BCTs available. For clinicians to support patient self-management, clinical practice should provide opportunities for development of a patient's capability for self-management. Therefore, we need to be cognisant and appreciative of how BCTs can be introduced during a clinical interaction but also aware that there is still much that is unknown in the science and application of behaviour change.

KEY POINTS

Use of behaviour change frameworks provides an opportunity for clinicians to:

1. See the range of BCTs available to them and how these could be used in practice.
2. Think carefully about the BCTs they embed in their practice.
3. Critically reflect on their own practice toward supporting patient self-management.

DISCLOSURES

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PERMISSIONS

None.

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