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FEATURE ARTICLE

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Barriers and facilitators to implementing self-directed therapy activities in inpatient rehabilitation settings

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Abstract

Background: Self-directed therapy activities are not currently part of routine care during inpatient rehabilitation. Understanding patient and clinician perspectives on self-directed therapy is key to increasing implementation. The aim of this study was to investigate barriers and facilitators to implementing a self-directed therapy programme ("My Therapy") in adult inpatient rehabilitation settings.

Methods: My Therapy was recommended by physiotherapists and occupational therapists and completed by rehabilitation inpatients independently, outside of supervised therapy sessions. Physiotherapists, occupational therapists, and patients were invited to complete an online questionnaire comprising open-ended questions on barriers and facilitators to prescribing and participating in My Therapy. A directed content analysis of free-text responses was undertaken, with data coded using categories of the Capability, Opportunity, and Motivation Model of Behaviour (COM-B model).

Results: Eleven patients and 20 clinicians completed the questionnaire. Patient capability was reported to be facilitated by comprehensive education by clinicians, with mixed attitudes towards the format of the programme booklet. Clinician capability was facilitated by staff collaboration. One benefit was the better use of downtime between the supervised therapy sessions, but opportunities for patients to engage in self-directed therapy were compromised by the lack of space to complete the programme. Clinician opportunity was reported to be provided via organisational support but workload was a reported barrier. Patient motivation to engage in self-directed therapy was reported to be fostered by feeling empowered, engaged, and encouraged to participate. Clinician motivation was associated with belief in the value of the programme.

Conclusion: Despite some barriers to rehabilitation patients independently practicing therapeutic exercises and activities outside of supervised sessions, both clinicians and patients agreed it should be considered as routine practice. To do this, patient time, ward space, and staff collaboration are required. Further research is needed to scale-up the implementation of the My Therapy programme and evaluate its effectiveness.

KEYWORDS
hospital, implementation, rehabilitation, self-directed therapy

Key Points for Occupational Therapy

- Occupational therapists believe that the self-directed therapy should be part of usual care during inpatient rehabilitation.
- Patients who participated in self-directed therapy reported feeling empowered and motivated.
- Family and clinician engagement and encouragement were reported to facilitate adherence to self-directed therapy.

1 | INTRODUCTION

Australian inpatient rehabilitation standards recommend the provision of 3 hours of therapy per weekday (Royal Australasian College of Physicians, 2019). However, in Australia, rehabilitation inpatients often receive less than half of this recommended dosage of physiotherapy, occupational therapy, or other allied health interventions (Brusco et al., 2014; Grimley et al., 2020). This is despite evidence that, by participating in more therapy, patients achieve better function and quality of life, with a shorter length of stay (Peiris et al., 2018). Although funding additional staff may increase the amount of supervised occupational therapy and physiotherapy, this is often subject to financial constraints (Bernhardt et al., 2007; Brusco et al., 2014; O'Brien et al., 2017; Peiris et al., 2018). Self-directed therapy activities (including occupational therapy and physiotherapy) have been shown to increase therapy participation by rehabilitation inpatients and to improve functional status at discharge (Brusco et al., 2019). However, many people participating in rehabilitation, for example, following a stroke or brain or spinal cord injury, are not prescribed self-directed therapy activities during their rehabilitation admission (Dobkin, 2016).

To increase uptake of self-directed therapy activities, it is important to understand barriers and facilitators to participation (Heinrich et al., 2010; Jones & Riazi, 2011; Warsi et al., 2004). Previous research with stroke survivors reported participation in activities outside of dedicated therapy sessions to be influenced by patients' impairments, attitudes towards these activities, the ward environment, rules, staff expectations, and the presence of visitors, who were perceived to be important facilitators of self-directed therapy activities (Janssen et al., 2022). For people with brain injury in the inpatient rehabilitation setting, factors influencing participation in extra practice (including tasks that could be conducted by patients independently or with the help of their relatives or a physiotherapy assistant) were reported to include motivation, perception of being listened to, executive functioning, and severity of injury, with relatives again being cited as an important source of support (Leung et al., 2018). It is important to note that, although perspectives of patients and relatives about self-directed therapy activities in inpatient rehabilitation have been investigated (Janssen et al., 2022; Leung et al., 2018), the perspectives of both patients and clinicians, including occupational therapists, physiotherapists, and allied health assistants, are not yet well understood.

Furthermore, because prescribing and participating in self-directed therapy requires behaviour change, understanding factors influencing this behaviour change is critical but not yet investigated. The Capability, Opportunity, and Motivation Model of Behaviour (COM-B model) proposes that people will only change a certain behaviour when they have the capability and opportunity to engage in the behaviour and are more motivated to enact that behaviour than other behaviours (Michie et al., 2011; West & Michie, 2020). This model is particularly relevant to self-directed therapy activities in hospital settings, because patients and clinicians have a range of physical and mental capabilities to consider in relation to participating in, and prescribing, these activities. Furthermore, given time pressures for hospital clinicians, an understanding of opportunity is also key, and while motivation is important, on its own, it is unlikely to be effective in changing patient and clinician behaviour in hospital settings.

Therefore, the aim of this study was to investigate barriers and facilitators to implementing self-directed therapy activities from the perspective of patients and clinicians in an adult inpatient rehabilitation setting and to map these perspectives to the COM-B model.

2 | METHODS

2.1 | Study design

A cross-sectional survey, using an online questionnaire, was conducted as part of a larger study which evaluated the feasibility of implementing self-directed programme of therapy activities ("My Therapy") on two inpatient rehabilitation wards in a private hospital in metropolitan Melbourne, Australia (Brusco et al., 2019). My Therapy was designed to augment usual care in inpatient rehabilitation by encouraging patients to complete self-directed occupational therapy and physiotherapy tasks and exercises outside of supervised therapy sessions (Brusco et al., 2019, 2021; Whittaker et al., 2021). Patients' programmes were developed by the treating occupational therapist and physiotherapist, in collaboration with the patient, and comprised both motor and cognitive activities. The programme was a subset of the activities and exercises included in supervised occupational therapy and physiotherapy sessions that could be performed safely by the patient outside of supervised therapy. All tasks and exercises were provided to the patient in a paper-based booklet that was kept by the patient, with a copy also kept by the therapist (Brusco et al., 2019). Although the booklet contained a set of general tasks and exercises, these varied depending on individual goals, preferences, and tolerance. An example is provided in a previous publication (Brusco et al., 2019).

Occupational therapists and physiotherapists were also able to engage the support of the allied health assistants in My Therapy to assist with programme implementation, including patient education and encouragement (but not supervision or task set-up). Family members were encouraged to talk to patients about their My Therapy programme to optimise adherence. Participants were recommended to perform their programme between one and three times per day. However, participants were able to self-pace according to their individual tolerance. On average, participants undertook an additional 14 minutes (*SD*, 14 minutes) per day of self-directed therapy activities.

The study has been reported in accordance with the Checklist for Reporting of Internet E-Surveys (Eysenbach, 2004) (Supporting Information S1). Approval to conduct the study was obtained from the Cabrini Human Research Ethics Committee (06-18-01-16) with trial registration via the Australian and New Zealand Clinical Trials Registry (ACTRN 12616000691448).

2.2 | Participants and recruitment

Two groups of participants were included: (i) rehabilitation inpatients and (ii) clinicians working on rehabilitation wards. Rehabilitation inpatients were eligible for inclusion if they were (i) aged 18+ years; (ii) admitted to inpatient rehabilitation under a reconditioning (including slow stream rehabilitation for general fitness, mobility, balance, or strength deficits) or orthopaedic stream; and (iii) had participated in the My Therapy self-directed therapy programme. Participants were excluded if they (i) had an identified cognitive impairment or (ii) did not speak English as a first language. Clinicians were eligible for inclusion if they (i) were aged 18+ years; (ii) were an occupational therapist, physiotherapist, or allied health assistant; and (iii) had worked on rehabilitation wards where My Therapy was implemented.

In the final 2 weeks of the larger My Therapy feasibility study, potentially eligible patients were approached in-person up to 48 hours prior to hospital discharge by the study coordinator and invited to participate in the study. Within the larger study, a total of 116 patients completed the My Therapy programme (Brusco et al., 2019). However, only those patients who were admitted during the 2-week recruitment period were approached for participation in this study. Written information was provided to patients, including the study coordinator's contact details, purpose of the study, and a statement of confidentiality. Informed consent was assumed by completing the questionnaire. Clinicians were recruited via an invitation sent to their work email addresses by the study coordinator in the week following conclusion of the My Therapy feasibility study.

2.3 | Data collection

Consenting patient participants were provided with an electronic tablet (iPad; Copyright © 2022 Apple Inc. apple.com) to complete the online questionnaire (Survey Monkey; Copyright © 1999–2022 Momentive.ai) while in hospital. Patient participants were given up to 2 days to complete the questionnaire. If a participant had difficulties using the device, they completed a paper version of the questionnaire instead. Consenting clinicians were provided with a link to the same questionnaire, via email. Clinicians were given 10 days to complete the questionnaire, with a reminder email sent after 1 week. Response data were stored on the health service server and were password protected.

The questionnaire (Supporting Information S2) elicited free-text responses focussed on barriers to participating in self-directed therapy (e.g., what made the process difficult?) and facilitators (e.g., what aided and/or supported the process?) with prompts based on the National Institute of Clinical Studies framework for identifying barriers and facilitators to implementing health care initiatives (Rainbird et al., 2006). The six levels of the framework include innovation (feasibility, credibility, accessibility, and attractiveness); professional factors (staff awareness, knowledge, attitude, motivation to change, and behavioural routine); social context (culture of the network, opinions of colleague's, collaboration, and leadership); patient factors (knowledge, skills, attitudes, and compliance); organisational context (care processes, staff, resources, capacity, and structures); and the economic and political context (financial arrangements, regulations, and policies) (Rainbird et al., 2006). The questionnaire was piloted by members of the research team, resulting in minor wording modifications, prior to distribution to participants.

2.4 | Data analysis

A directed content analysis was applied to the free-text responses within completed surveys (Hsieh & Shannon, 2005). Qualitative content analysis is a method used to interpret text data, such as free-text responses to open-ended questions, through a systematic coding and classification process. The directed approach to content analysis may use an existing theoretical framework to generate coding categories. Because this study aimed to understand barriers and facilitators to behaviour change, the three categories of the COM-B model of behaviour change were used as the initial coding scheme (capability "C," opportunity "O," and motivation "M") (West & Michie, 2020). First, the three categories were defined, to ensure consistent understanding amongst researchers. Capability was defined as the attribute of a person that facilitates a behaviour, opportunity was defined as the attribute of an environmental system that facilitates a behaviour, and motivation was defined as an aggregate of mental processes that can energise and direct behaviour (West & Michie, 2020). With these definitions in mind, two researchers (NB and CE) independently familiarised themselves with all survey responses to gain an understanding of the data. Next, text from all surveys that appeared to indicate barriers and facilitators to behaviour change (i.e., participating in or prescribing self-directed therapy activities) was highlighted. All highlighted text was then coded by each researcher independently using the three predetermined categories of the COM-B model using deductive reasoning (Michie et al., 2011; West & Michie, 2020; Willmott et al., 2021). Data coded to each category were then coded into subcategories, developed by the researchers collaboratively, to provide a more detailed explanation of how data met category definitions. Credibility and trustworthiness were established by regular review of coding by the two researchers (NB and CE), with coding decisions reached via consensus. Memos were recorded during analysis to support reflexivity. The inclusion of two participant groups, including three clinical disciplines, supported triangulation of the results, as did having two researchers performing the coding (Patton, 2014). Outlining the lens through which each of these researchers viewed the study topic, one of these researchers was a physiotherapist, employed at the participating health service, who was involved in implementing and evaluating the My Therapy programme (NB), and the other was a physiotherapist, experienced in qualitative analysis who was not involved with the My Therapy programme nor employed within the health service (CE).

3 | FINDINGS

At the time of recruitment, there were 16 patients actively participating in the self-directed therapy programme across two wards. Of these patients, 64% ($n = 11$) completed the questionnaire. The remaining five patients declined participation. Five of the 11 patient participants were female, and the majority ($n = 10$) were aged over 70 years. There were five patient participants from each ward, with the ward unknown for one patient. Of the 20 eligible clinicians, all responded to the survey (100% response rate); 85% ($n = 17$) were female, with mean (*SD*) of 3.7 (4.6) years clinical experience. Of the clinicians, seven were occupational therapists, 10 were physiotherapists, and three were allied health assistants, and they ranged in age from 18 to 49 years, with 15 aged 18–29 years, four aged 30–39 years, and one aged 40–49 years.

Data are presented according to the categories of the COM-B model, that is, capability, opportunity, and motivation, and subcategories of each, devised by researchers (West & Michie, 2020; Willmott et al., 2021) (Figure 1). Supporting quotes are identified according to participants' role (patient, "P"; occupational therapist, "OT"; physiotherapist, "PT"; and allied health assistant "AHA") and participant number.

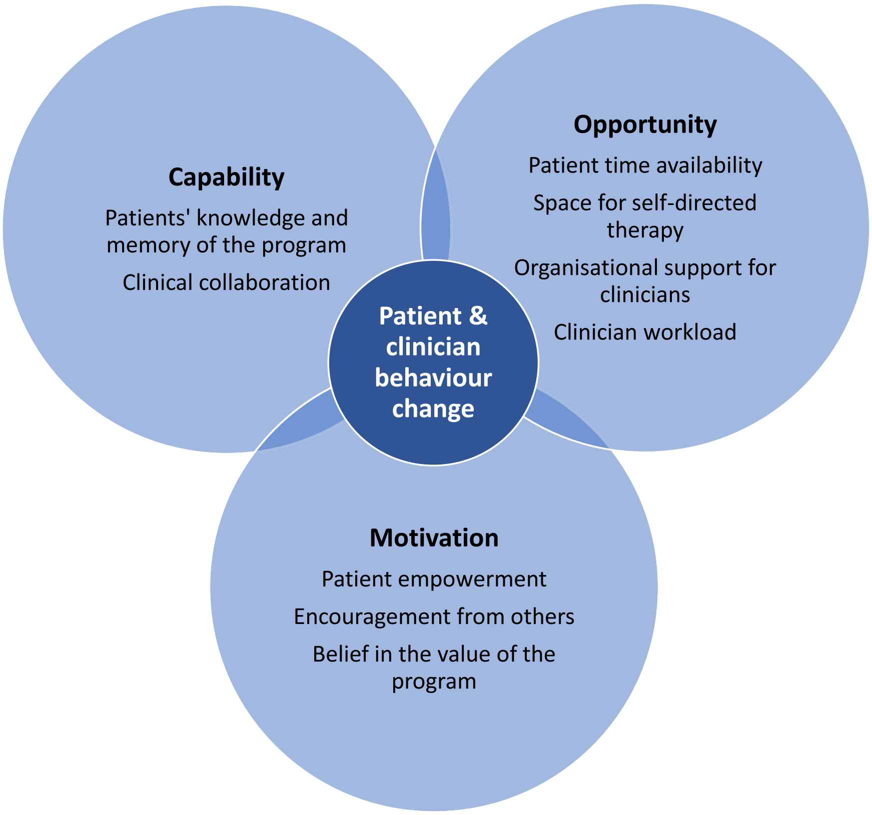

FIGURE 1 Key themes categorised according to the Capability, Opportunity, and Motivation Model of Behaviour.

3.1 | Capability

3.1.1 | Patients' knowledge and memory of the programme

Within the capability category, patients' knowledge and memory of the self-directed therapy programme was identified as a key factor facilitating engagement. Although it was mostly reported by patients that the education provided in person by the therapists effectively upskilled them to conduct the programme safely, some clinicians still reported that there was "not enough time to explain and teach patients about [the] program" (AHA). The information provided in the exercise booklet/diary received mixed feedback from patients, with some patients reporting that the booklet improved capability as it "[showed] visually how to do exercises" (P11) and that "the info in this booklet gave me confidence that I was doing the right exercises" (P8). However, another patient reported the "exercise diary is hopeless and confusing" (P6). The booklet was also reported to improve adherence, with one participant reporting that "keeping the diary [helped them] to continue regularly" (P11). Clinicians also identified that the current booklet format could be improved to reduce the time burden on clinicians, for example, having condition specific programmes which contain a range of common therapy activities for that condition.

3.1.2 | Clinical collaboration

Clinicians' capability was enhanced through strong collaboration between therapists, to support their capacity to provide the programme to patients. Clinicians reported that during the implementation of My Therapy, the "leadership and collaboration was [a] good and a shared responsibility" (OT6). Clinicians also reported that other members of the multidisciplinary team, including the nursing and medical clinicians, encouraged patients to participate, as well as noting that the "allied health assistant role assisted" (OT6).

3.2 | Opportunity

3.2.1 | Patient time availability

The unstructured time available to patients between the supervised therapy sessions meant that they had an opportunity to complete their programme. One patient stated, "My Therapy provided some focus especially on days with no treatment" (P2). Another stated that patients were "motivated to do exercises especially on public holidays and days with no physio" (P1). However, this was not always the case, with clinicians reporting that there were "some patients who didn't have enough time to complete program" (AHA2).

3.2.2 | Organisational support for clinicians

Clinicians noted that having organisational support to "change the normal clinical requirements and time commitments helped" (PT10), as adding self-directed therapy to usual care involved reprioritising responsibilities. Organisational support also included "encouragement of the team leader" (PT11) and "a supportive senior structure and devoted staff" (PT13), which helped the therapists to reprioritise their workload to accommodate the additional demands of implementing self-directed therapy.

3.2.3 | Space for self-directed therapy

Both clinicians and patients reported that there was "no space for patients to complete My Therapy [self-directed therapy] together" (AHA1). Completing the self-directed therapy programme in patients' rooms was at times difficult due to having limited access to equipment as well as physical space to complete the activities. In addition, it was reported that a communal space would have created an opportunity for patient-peer support.

3.2.4 | Clinician workload

Time pressure was a significant barrier for clinicians with respect to developing and reviewing the self-directed therapy programmes, as well as providing patient education. Clinicians reported that prior to the My Therapy project that they were already struggling to complete their clinical and non-clinical tasks. Clinicians also reported that there was "pressure to implement quickly" (PT7). Despite this, clinicians reported that self-directed therapy activities should be a part of routine care within inpatient rehabilitation.

3.3 | Motivation

3.3.1 | Patient empowerment

Patients reported that participating in self-directed therapy resulted in them feeling empowered which further aided their motivation to continue. Patients stated that they thought the "overall the program [was] pretty good and made me take responsibility for my exercise program" (P4). Patients reported that participation in self-directed therapy also improved motivation to participate in their rehabilitation, more generally, and that it gave them purpose through a structured programme, between supervised therapy sessions. Patients reported that self-directed therapy should be a part of their care during inpatient rehabilitation.

3.3.2 | Encouragement from others

Patients reported that encouragement from clinicians, family, and peers motivated them to complete their programmes. Patients stated that "staff were helpful and encouraging, they [staff] modified the program as needed" (P9). Clinicians reported that patients were assisted to complete their programmes with "positive family encouragement" (OT10) and that "involving patients' family and/or other patients, helped [self-directed therapy] participation" (PT4), indicating that social influences improved their ability to complete the programme.

3.3.3 | Belief in the value of the programme

Most patients expressed a positive belief in the programme, reporting it was "extremely useful for me to be more aware of the need to work on my fitness" (P3), and clinicians reported that patients who completed their programmes were those who "were motivated to change" (PT11). However, some patients did not feel capable of doing anything extra. Clinicians noted that "not all patients were interested in the program" (PT3), that some "patients felt there was no need for exercises outside of formal physio" (PT5), and that some patients felt there was "too many other things going on and wanted to conserve energy" (P3).

Clinicians who were motivated to provide the self-directed therapy programme held the belief that the addition of self-directed therapy would increase the intensity of therapy participation, improve the patients' function and quality of life, and "promote patient self-management skills" (PT11). Clinicians reported that it was motivating to think that self-directed therapy participation had "the potential to reduce length of stay" (PT13) and that this may have financial benefits for the health service. Clinicians also believed that participation in self-directed therapy may increase "patient satisfaction for those who felt they weren't getting enough therapy" (PT16). However, clinicians also expressed concern for patient safety, specifically falling while completing the programme.

4 | DISCUSSION

This study adds to previous literature by interpreting barriers and facilitators for the behaviour of self-directed therapy during inpatient rehabilitation against a model of behaviour change (the COM-B model) and from the perspectives of both patients and clinicians. Capability to participate in self-directed therapy was fostered via patient education and clinical collaboration. For patients, the opportunity to participate was provided in the downtime between the supervised therapy sessions but was reduced by the lack of space to complete the programme. For clinicians, opportunity was provided via organisational support but limited by their existing workload. Motivation was fostered by patients feeling empowered and encouraged to participate in self-directed therapy, and clinicians were motivated by a belief in the value of the programme. Both clinicians and patients reported that self-directed therapy should be embedded into routine care during inpatient rehabilitation.

The advantages of positive patient interactions with clinicians, family, and patient-peers, in the context of therapy, were highlighted in this study. A trusting relationship between a patient and their health professionals is a key predictor of exercise adherence (Jansons et al., 2017) and participation in rehabilitation (Last et al., 2022). Last et al. (2022) emphasise the importance of relationship building between patients and clinicians to optimise person-centred care in hospital-based stroke rehabilitation. Person centredness in rehabilitation can be fostered via collaborative goal setting to ensure rehabilitation activities are meaningful to patients and the provision of specific feedback on their progress and performance (Last et al., 2022). These processes are also critical to building patient motivation and adherence to self-directed therapy. Furthermore, in this study, family and visitors were reported to provide patients with motivation to complete their self-directed therapy activities. Previous studies have also reported that support from family can influence participation in extra practice outside of supervised therapy sessions (Janssen et al., 2022; Leung et al., 2018), as well as general participation in rehabilitation (Last et al., 2022). However, as noted by Leung et al. (2018), it was critical that clinicians provided family with training so that they felt confident and empowered to assist patients with extra practice (Leung et al., 2018).

Having the perspectives of clinicians was a key strength of this study, as previous studies have focussed on patients' and relatives' perspectives (Janssen et al., 2022; Leung et al., 2018). Lack of time was noted by some clinicians as a barrier to implementing independent practice, as the self-directed therapy programme required clinicians to complete extra tasks such as developing the programme and providing the patient with education on how to safely complete it. This is especially important when considering future study designs. Efficiencies could be made in the time taken to set up and progress the programme by moving the booklet to an online platform. This could include a help function and practice hints to aid in the education of patient users, with the aim of making the programme less difficult to understand, with reminders for completion (Iversen et al., 2014). Efficiencies could also be achieved by having pre-prepared programmes available to therapists, containing common exercises and activities for specific conditions.

In the current study, participation in self-directed therapy resulted in patients feeling empowered, engaged, and motivated. It is known that boredom in the hospital setting is a common patient complaint (Clissett, 2001; Steele & Linsley, 2015). However, engaging in self-directed therapy gave patients the opportunity to counter boredom and be active outside of structured therapy time. It should be noted though that patients identified that the lack of a dedicated space to complete their programmes after hours or on weekends was a critical barrier. Janssen et al. (2022) also noted that orienting stroke survivors to where they could go on the ward to complete their self-directed activities was critical to their confidence in engaging in these activities. This factor should be considered for future implementation of self-directed therapy activities in inpatient settings.

The findings from this study have subsequently informed a multisite, stepped wedge randomised controlled trial evaluating the effectiveness and cost-effectiveness of My Therapy (Brusco et al., 2021; Whittaker et al., 2021). Changes that were made to the My Therapy programme as a result of this study included adding a co-design element to enable clinicians to devise local implementation strategies (including how My Therapy programmes are created by staff and delivered to patients), a system for developing individualised programmes for each patient, an increased focus on behaviour change strategies for patients and clinicians (including person-centred goal setting and motivational interviewing), and the inclusion of family and caregivers to support patient motivation.

Although all eligible clinicians ($n = 20$) completed the survey and provided insights into perceived barriers and facilitators for adherence and implementation, the small sample size of patients ($n = 11$) was a limitation. However, by including two participant groups and three clinical disciplines, the sampling frame did capture diversity of attitudes and opinions. Although we only collected participants' diagnoses in relation to the broad impairment categories used by the Australasian Rehabilitation Outcomes Centre (Eagar, 1999), that is, reconditioning or musculoskeletal, we acknowledge that further diagnostic detail may have been of interest. A limitation of using a survey to understand patients' and clinicians' perspectives was the inability to explore these perspectives in more detail or understand the basis for certain opinions, for example, that "the exercise diary is hopeless and confusing." Furthermore, a limitation of the analytical approach, using a predetermined coding scheme, is a potential failure to identify key barriers and facilitators outside of these categories. However, given the type of text data available for analysis (i.e., free-text responses) and the clinical utility of the COM-B model, this approach was appropriate. Peer review and memo keeping were used to ensure that key information was not missed. In addition, this study only included patients from the reconditioning and musculoskeletal rehabilitation streams, which limits the generalisability of findings to inpatient rehabilitation populations presenting with these conditions. Furthermore, this study did not include people with moderate to severe cognitive impairment. Investigating the barriers and facilitators to self-directed therapy activities in people with cognitive impairment and other conditions, such as stroke or traumatic brain injury or communication difficulties, such as aphasia, would be worthwhile.

5 | CONCLUSION

Clinicians and patients reported the patient participation in self-directed therapy during inpatient rehabilitation required staff to educate and support patients and create time and space for patients to complete their programmes. For staff to prescribe self-directed therapy required collaboration, reprioritising other tasks, and a belief in the importance of self-directed therapy for improving inpatient rehabilitation outcomes. Despite the barriers, including staff workload and a lack of dedicated space for completing self-directed activities, both clinicians and patients agreed that self-directed therapy should be considered as routine practice within inpatient rehabilitation. Further research is needed to scale-up the implementation of the My Therapy programme and evaluate its effectiveness.

AUTHOR CONTRIBUTIONS

Natasha K. Brusco: Conceptualisation; methodology; software; validation; formal analysis; investigation; resources; data curation; writing—original draft; writing—review & editing; visualisation; supervision; project administration; funding acquisition. **Brianna Walpole**: Conceptualisation; formal analysis; investigation; writing—original draft; writing—review & editing. **Helen Kugler**: Conceptualisation; formal analysis; investigation; writing—original draft; writing—review & editing. **Louise Tilley**: Conceptualisation; formal analysis; writing—review & editing. **Claire Thwaites**: Formal analysis; writing—review & editing. **Alicia Devlin**: Formal analysis; writing—review & editing. **Emma Dorward**: Formal analysis; writing—review & editing. **Fiona Dulfer**: Formal analysis; writing—review & editing. **Annemarie L. Lee**: Formal analysis; writing—review & editing. **Meg E. Morris**: Investigation; formal analysis; writing—review & editing; supervision. **Nicholas F. Taylor**: Formal analysis; writing—review & editing. **Helen Dawes**: Formal analysis; writing—review & editing. **Sara L. Whittaker**: Formal analysis; writing—review & editing. **Christina L. Ekegren**: Conceptualisation; methodology; formal analysis; investigation; data curation; writing—original draft; writing—review & editing; visualisation; supervision.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest related to this work.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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