

My Therapy

Feasibility of increasing the dosage of inpatient occupational therapy and physiotherapy rehabilitation with additional self-directed independent exercise: “*My Therapy*”

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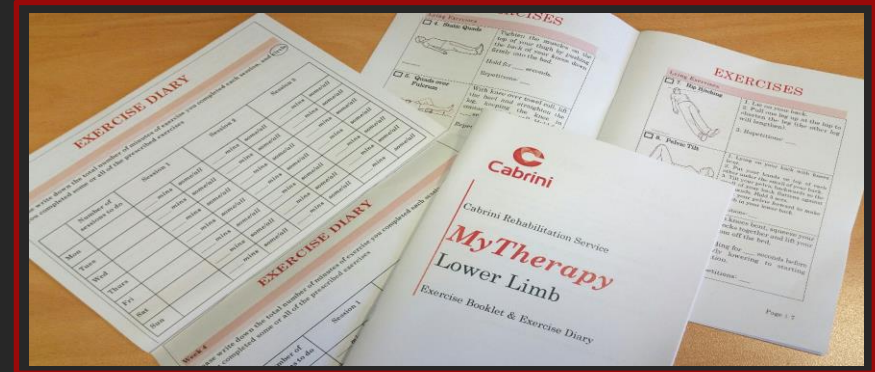
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Background

Best available research

- ◆ Additional occupational therapy and physiotherapy in rehabilitation may improve patient and health service outcomes
- ◆ Independent patient exercises can be performed safely
- ◆ Use of a health literacy booklet can improve motivation, recall of activities and reduce the risk of recall bias for reporting adherence
- ◆ Rehab guidelines rec. 3 hours / day
- ◆ Rehab patients are inactive
- ◆ Self management is an exercise enabler
- ◆ 19 minutes extra physiotherapy in rehab
- ◆ Rehab goals are set with the patient

Clinical expertise

- ◆ Senior rehabilitation occupational therapists and physiotherapists with experience in public and private health inpatient rehabilitation
- ◆ Nursing, medical and allied health assistant project advisors
- ◆ Project team members with research expertise and a health economist

Patient preference

- ◆ Family expressed a desire to be actively involved in the rehabilitation program
- ◆ Patients and family expressed concern about the lack of activity over the weekend and in the evenings
- ◆ Patients reported a preference to receive information in writing to improve understanding and adherence

Theoretical framework

My Therapy

Aim

The aim of this study was to determine feasibility of implementing *My Therapy* in addition to rehabilitation inpatient usual care, for musculoskeletal and frail older patients to increase the amount of therapy



The intervention: My Therapy

A sub-set of usual care occupational therapy & physiotherapy

	Musculoskeletal stream		Reconditioning stream for frail older patients	
	Usual Care	My Therapy	Usual Care	My Therapy
Occupational Therapy				
Functional assessment	✓		✓	
<i>May include:</i>				
<i>Self-care</i>				
<i>Domestic</i>				
<i>Leisure and productivity</i>				
<i>Home environment</i>				
<i>Other as identified by treating therapist</i>				
Setting client centred goals	✓	✓	✓	✓
Relaxation	✓	✓	✓	✓
<i>May include:</i>				
<i>Guided Imagery</i>				
<i>Breathing exercises</i>				
<i>Progressive Muscle Relaxation</i>				
<i>Other as identified by treating therapist</i>				
Mindfulness	✓	✓	✓	✓
<i>May include:</i>				
<i>Mindfulness colouring</i>				
<i>Body scan exercises</i>				
<i>Other as identified by treating therapist</i>				
Upper limb management	✓	✓	✓	✓
<i>May include:</i>				
<i>Fine and gross motor tasks</i>				
<i>Sensory stimulation and re-training</i>				
<i>Scar and oedema management</i>				
<i>Positioning and supporting</i>				
<i>Range of motion and strength exercises</i>				
<i>Tone and Spasticity management</i>				
<i>Other as identified by treating therapist</i>				

Lower body dressing	✓	✓	✓	✓
<i>May include:</i>				
<i>Use of adaptive aids</i>				
<i>Modification to the environment</i>				
<i>Other as identified by treating therapist</i>				
Education	✓	✓	✓	✓
<i>May include:</i>				
<i>Falls Prevention</i>				
<i>Energy Conservation</i>				
<i>Joint Protection</i>				
<i>Other as identified by treating therapist</i>				
Cognitive rehabilitation	✓	✓	✓	✓
<i>May include:</i>				
<i>Compensatory and remedial strategies:</i>				
<i>Activity planner and diary</i>				
<i>Paper and pen based tasks</i>				
<i>Repetitive skill building in activities of daily living</i>				
<i>Other as identified by treating therapist</i>				
Ongoing re-assessment	✓	✓	✓	✓
Discharge planning	✓	✓	✓	✓
Physiotherapy				
Mobility assessment	✓	✓	✓	✓
Setting client centred goals	✓	✓	✓	✓
Balance exercises	✓	✓	✓	✓
<i>May include:</i>				
<i>Standing balance tasks</i>				
<i>Static or dynamic balance</i>				
<i>Other exercises prescribed by treating therapist</i>				
Range of movement exercises	✓	✓	✓	✓
<i>May include:</i>				
<i>Shoulder, elbow, hand, hip, knee or ankle exercises</i>				

Strength exercises	✓	✓	✓	✓
<i>May include:</i>				
<i>Shoulder, elbow, hand, hip, knee or ankle exercises</i>				
<i>In lying, sitting or standing</i>				
<i>Open or closed kinetic chain</i>				
<i>With or without weights/resistance</i>				
<i>Other exercises prescribed by treating therapist</i>				
Bed transfers	✓	✓	✓	✓
Gait Exercises	✓	✓	✓	✓
<i>May include:</i>				
<i>Gait aid practice</i>				
<i>Walking endurance</i>				
Ongoing progression of exercises	✓	✓	✓	✓
Discharge planning	✓	✓	✓	✓

The exception was assessments and discharge planning



The intervention: My Therapy (cont.)

- The program is a means of promoting a **partnership** between clinical staff and the patient
- The program aims to **empower** the patient to better manage their health while an inpatient, with hope that there may be carryover into the community
- **Encourages** the patient and, if required their care-giver, to complete an independent self-management therapy program developed by the treating occupational therapist and physiotherapist
- My Therapy can be completed within business hours, in the **evenings or over the weekends**
- The **nursing team** encouraged / reminded the patients to complete the My Therapy, but did not actively assist



Methods

- A two-group quasi-experimental pre-post design
- Examined feasibility of delivering *My Therapy* in addition to usual care, compared to usual care
- *My Therapy* was prescribed by the occupational therapist and physiotherapist and was a sub-set of usual care tasks and exercises being addressed in therapy, that could be performed safely, effectively and independently by the patient outside of therapy
- The primary outcome was *My Therapy* implementation feasibility, to achieve at least 70% adherence
- Secondary outcomes were self-reported daily *My Therapy* participation (minutes), total daily rehabilitation participation (minutes), adverse events, length of stay, 10 metre walk speed, FIM scores and discharge home.



Results – Primary Outcome

- Usual care n=89, intervention n=116
- Baseline characteristics
 - Primary diagnosis (**p<0.05***): Usual care 69% orthopaedic (n= 61/89) ; Intervention 50% orthopaedic (n= 58/116)
 - Functional status on admission (**p<0.05***): Usual care FIM 90 (SD 15); Intervention FIM 94 (SD 9)
 - Age and gender were similar at baseline: Usual care 79 years and 67% female (n= 60/89); Intervention 79 years and 65% female (n= 75/116)
 - Accommodation pre-admission and co-morbidities also similar at baseline
- The intervention
 - 16 missing books, assumed to have zero participation
 - Patients were prescribed between 0 and 3 sets per day
 - Adherence: 72% (n=83/116), completing some or all
 - 64% (n=74/116) completed some and 8% (n=9/116) completed all



Results – Secondary Outcomes

	Usual Care	Intervention	Significance
OT Total Time	674.16 (SD479.43)	860.30 (SD546.46)	MD 186.14 p=0.012*
OT Per Day	54.75 (SD39.29)	73.58 (SD34.68)	MD 18.83 p=0.000*
PT Total Time	1073.20 (SD523.96)	1020.82 (SD395.61)	MD -52.38 p=0.416
PT Per Day	92.96 (SD58.21)	89.78 (SD23.16)	MD -3.18 p=0.592
MT Total Time	0.00 (SD0.0)	158.79 (SD175.56)	N/A
MT Per Day	0.00 (SD0.0)	14.02 (SD14.21)	N/A
OT&PT Per Day	147.71 (SD87.98)	163.36 (SD42.63)	MD 15.65 p=0.095
OT&PT&MT Per Day = overall therapy time	147.71 (SD87.98)	177.38 (SD46.95)	MD 29.67 p=0.002*
Sensitivity Analysis: n=16 removed for a total of n=100, with missing booklets removed case-wise: MT adherence / MT per admission / MT per day	0.00 (SD0.0)	83% (n=83/100) 184.20 (SD16.268) / adm 16.3 (SD14.1) / day	N/A

	Usual Care	Intervention	Significance
Accommodation, home	80% (n=71/89)	86% (n=100/116)	p=0.32
Adverse events, none	97% (n=86/89)	96% (n=111/116)	p=0.89
LOS, days	12.7 (SD7.0)	11.9 (SD5.4)	p=0.35
Function (FIM), score	97.7 (SD30.5)	104.6 (SD26.6)	p=0.10
Function (FIM), change score (discharge – admission)	8.0 (SD26.0)	10.3 (SD24.1)	p=0.53
MCID Function, achieved	n=9/89, 10.1%	n=26/116, 22.4%	p=0.02

Discussion

- Could *My Therapy* be implemented in other settings.... Acute? Community?
- Other professions..... Nursing? Other Allied Health?
- Need to consider an RCT to look at the causative effect
- Need to consider the barriers and facilitators
- Limitations of this study



Conclusion

My Therapy is a feasible and safe way to increase the amount of occupational therapy and physiotherapy participation by older people with musculoskeletal conditions and frailty. The *My Therapy* group achieved an additional 14 minutes per day of practice alongside usual rehabilitation, without adverse events or safety concerns.



Questions & Comments



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