# **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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### **Members of the team**

#### Research team:

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## Background

Theoretical framework

#### 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

#### **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

- Rehab guidelines recc. 3 hours / day
- Rehab patients are inactive
- Self management is an exercise enabler
- ✤ 19 minutes extra physiotherapy in rehab

My Therapy

✦ Rehab goals are set with the patient



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	~		~	
May include:				
Self-care				
Domestic				
Leisure and productivity				
Home environment				
Other as identified by treating therapist				
Setting client centred goals	~	~	~	×
Relaxation	~	~	~	×
May include:				
Guided imagery				
Breathing exercises				
Progressive Muscle Relaxation				
Other as identified by treating therapist				
Mindfulness	~	~	~	~
May include:				
Mindfulness colouring				
Body scan exercises				
Other as identified by treating therapist				
Upper limb management	~	~	~	~
May include:				
Fine and gross motor tasks				
Sensory stimulation and re-training				
Scar and oedema management				
Positioning and supporting				
Range of motion and strength exercises				
Tone and Spasticity management				
Other as identified by treating therapist				

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Shoulder, elbow, hand, hip, knee or ankle exercises		May inc	:lude:					
			Shoulder, elbow, hand, hip, knee or ankle exercises					

Strength exercises	~	~	~	~
May include:				
Shoulder, elbow, hand, hip, knee or ankle exercises				
In lying, sitting or standing				
Open or closed kinetic chain				
With or without weights/resistance				
Other exercises prescribed by treating therapist				
Bed transfers	~	~	~	~
Gait Exercises	~	~	~	~
May include:				
Gait aid practice				
Walking endurance				
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)</li>
  - Functional status on admission (p<0.05\*): Usual care FIM 90 (SD 15); Intervention FIM 94 (SD 9)</li>
  - 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:	0.00 (SD0.0)	83% (n=83/100) 184.20 (SD16.268) / adm	N/A
MT adherence / MT per admission / MT per day		16.3 (SD14.1) / day	

	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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