

Project Title

Nurse-Led Function Focused Care (FFC) model: Engaging Nurses in Maximizing Patient's Mobility To Achieve Therapy Goals in Acute and Subacute ward Tan Tock Seng Hospital

Project Lead and Members

Liew Siew Ping

Organisation(s) Involved

Tan Tock Seng Hospital

Project Period

Start date: Mar 2016

Completed date: Dec 2016

Aims

The primary aim is to increase mobilization dosage and measure impact on functional scores. Subsequently to measure sustenance in sub-acute wards and its feasibility in acute settings.

Background

Functional deconditioning is a common result of prolonged bed rest in hospital. Patients spend at best only 30 minutes out of bed mostly during therapy sessions. With nurses' engagement in mobilization, patients had received four times of additional mobilization dosage on top of physiotherapy sessions which resulted in improved functional outcome and better patient satisfaction.

Methods

The Functional Resonance Analysis method (FRAM) was used. A small change to work processes and roles was implemented by engaging nurses in mobilizing patients.

Physiotherapist recommends level of assistance and level of mobility for eligible patients via a communication board. Nurses follow up on recommendations, maximize mobility episodes and charts mobility episodes.

Results

In pilot phase, 1091 mobility episodes were recorded for 38 patients during study period of 2 months, with 86.5% done by nurses. Both the Modified Barthel Index, MBI ($p=0.0001$) and Modified Elderly Mobility Scale ($p=0.0008$) scores improved significantly. Patient surveys reflected an overall improvement in their general health and overall confidence in performing their Activities of Daily Living and mobility. In continuum phase, 491 mobilisation episodes recorded from May to July sub-acute patients with 80.6% done by nurses. 363 mobilization episodes recorded from September to December 2016 for 26 acute patients with 77.4% done by nurses. Both populations demonstrated significant clinical and statistical improvement in mean MBI score (p -value 0.038 and 0.0005 respectively).

Lessons Learnt

- Inter-professional collaboration is key in designing a “trans-disciplinary approach for job sharing”
- Clear communication of a common goal achieves better patient outcomes.

Conclusion

Principles and methods adopted in our FFC model were easily applicable in sub-acute and acute setting. Positive outcomes in both settings suggest that FFC model has potential to spread the practice across other institutions to better engage the available work force in optimizing functional mobility to improve patient outcomes with no additional cost.

Additional Information

- Shortlisted for NHG Quality Improvement finalist under “Developing a Flexible & Sustainable Workforce” category in August 2016
- Presented under poster presentation at SHBC 2016
- Shortlisted for Best Oral Award at Singapore Rehab Conference 2017

Project Category

Workforce Redesign, Care Redesign

Keywords

Workforce Transformation, Job Redesign, Workflow Redesign, Care Redesign, Quality Improvement, Optimal Mobilization, Clinical Improvement, Process Improvement, Function Focused Care, Functional Mobility, Nurse-led Mobilization, Tan Tock Seng Hospital, Allied Health, Physiotherapy, Nursing, Functional Resonance Analysis Method, Rehabilitation, Multi-Disciplinary, Work-As-Done, Staff Training, Inter-professional collaboration, Trans-disciplinary, Clear Communication, Common Patient Goal, Improve Patient Outcome, Increase Therapy Time, Mobilization Out of Bed, Functional Outcome, Patient Satisfaction, Confidence & Limitation, Psychological Well-being, Modified Barthel Index, Modified Elderly Mobility Scale, Sub-Acute Care

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Tan Tock Seng HOSPITAL



Adding years of healthy life

Nurse-Led Function Focused Care (FFC) In Sub-acute Recovery Ward 82 Of Tan Tock Seng Hospital To Maximise Mobility & Enhance Function To Achieve Desired Therapy Goals

Liew Siew Ping & Iqbal Saboor Rahman

Aim & Background

Functional deconditioning is a common result of prolonged bed rest in hospital. Patients spend at best only 30 minutes out of bed mostly during therapy sessions.

With literature widely supporting the benefits of increasing therapy time to improve functional recovery, reliance on one allied health professional clearly fell short. Hence, we involved nurses in engaging patients in physiotherapy-recommended activities throughout the day.

The primary aim of the project was to increase the patient's time spent mobilizing out of bed engaging in functional activities.

Team Members

	Name	Designation	Department
Team leader	Liew Siew Ping	Senior Physiotherapist	Physiotherapy
Team members	Iqbal Saboor Rahman	Senior Physiotherapist	Physiotherapy
	Atiq Syazwani Bte Roslan	Physiotherapist	Physiotherapy
	Eng Xue Wen	Physiotherapist	Physiotherapy
	Chia Siew Mee	Nurse Clinician	Nursing
	Khin Aye Myint	Senior Staff Nurse	Nursing
	Macalalad, Jamie Marie Ramos	Enrolled Nurse	Nursing

Methodology

The Functional Resonance Analysis method (FRAM) was used. Work-as-Done (WAD) was analyzed, and the existing work process was defined. The process was redesigned and Function Focused Care Model was introduced with a small change to work procedure and roles. The FRAM is for assessment of variability in redesigned system.

Time:

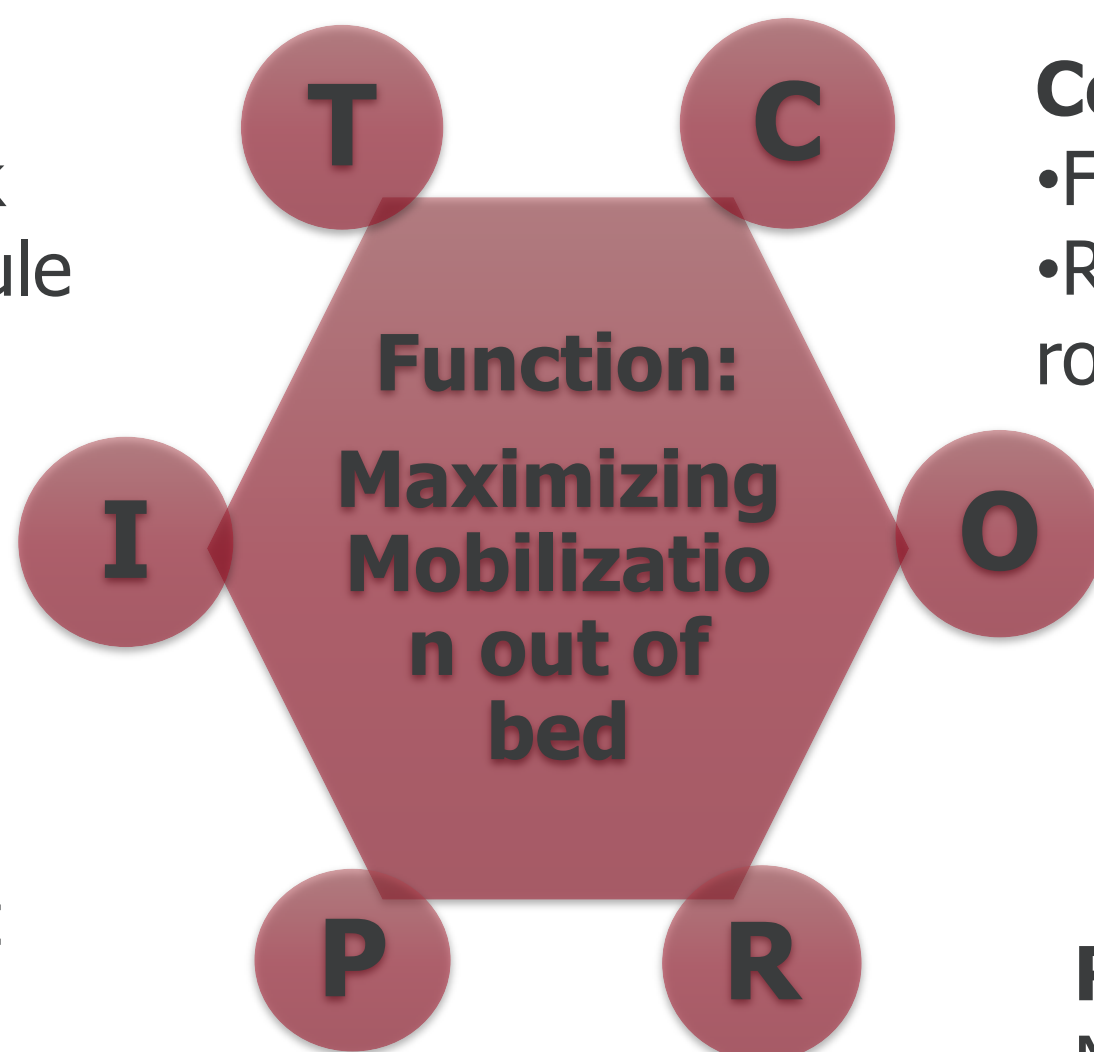
PT and nurses will work within their duty schedule

Input:

Nurses engagement in mobilizing patient

Pre-condition:

Nurses education about role redesign



Control:

- Function focused care model
- Revised work process with role redesign

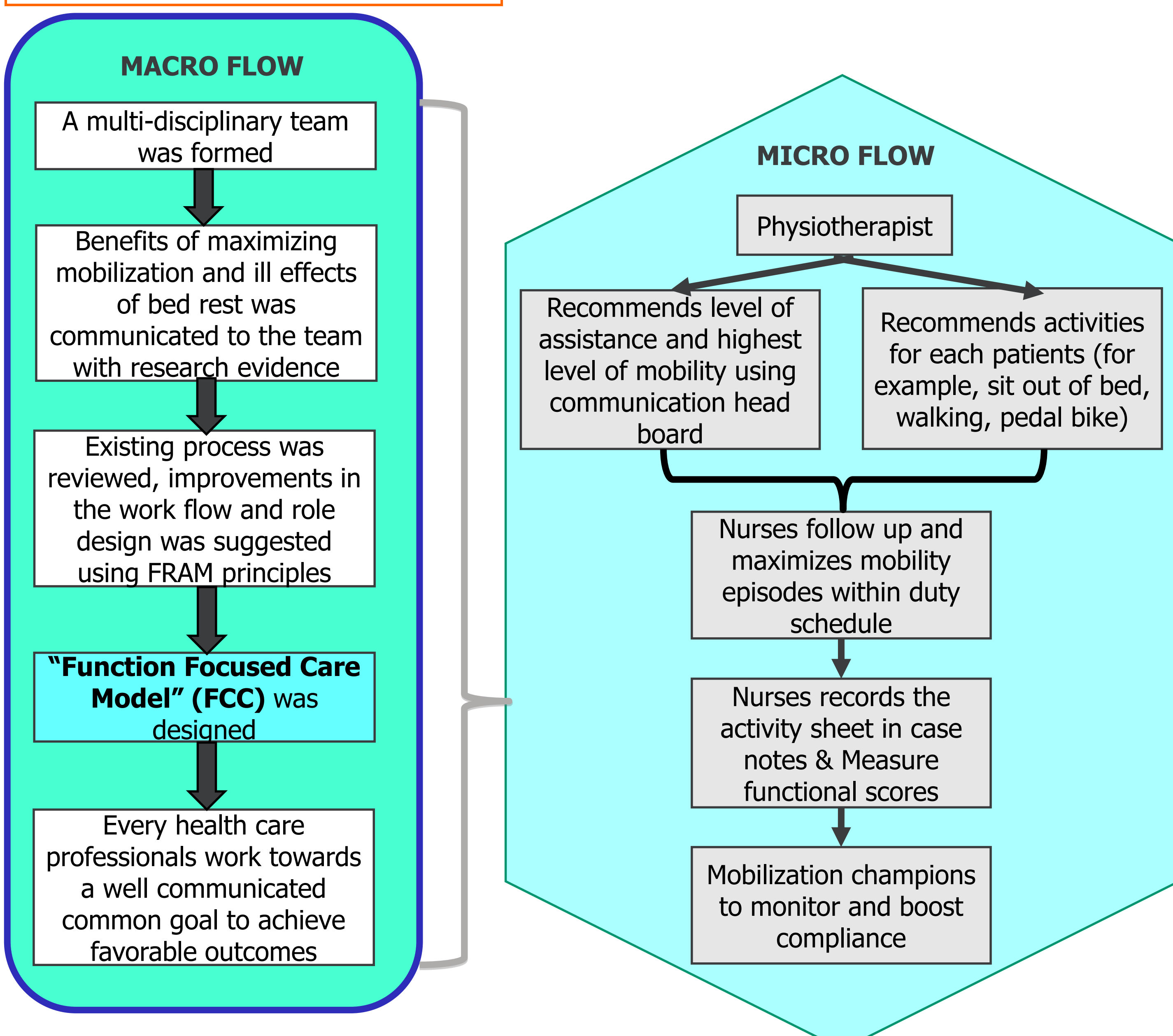
Output:

1. Mobilization episodes
2. Functional outcomes
3. Patient survey

Resource:

No additional manpower or cost

Implementation



Results

1) Mobilization Out Of Bed: (n=38)

Figure 1 Percentage of mobilization out of bed for each patient

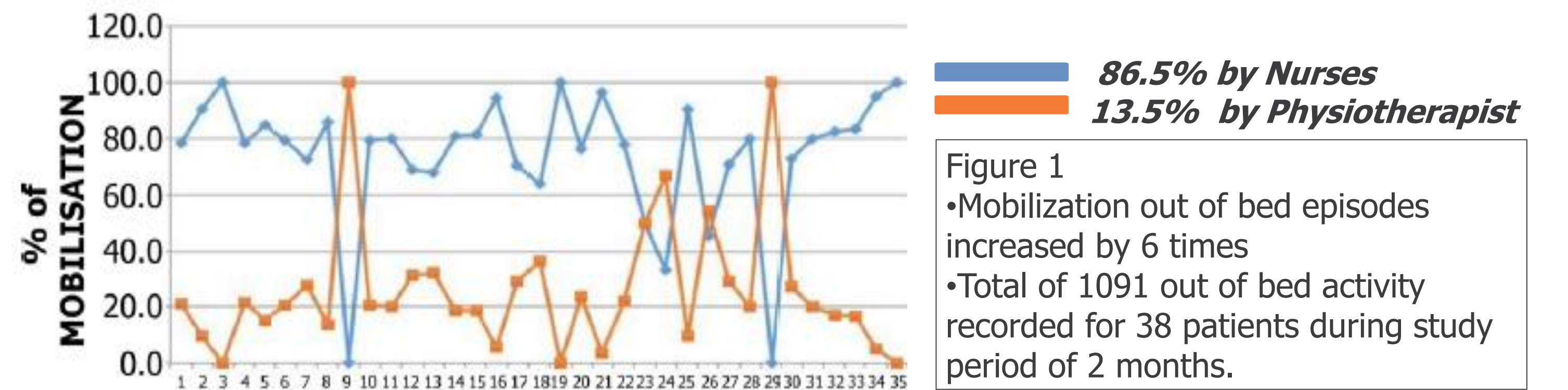


Figure 1
•Mobilization out of bed episodes increased by 6 times
•Total of 1091 out of bed activity recorded for 38 patients during study period of 2 months.

2) Functional Outcome: (n=31)

• Modified Barthel Index (MBI)

Figure 2.1 MBI Score for each patient

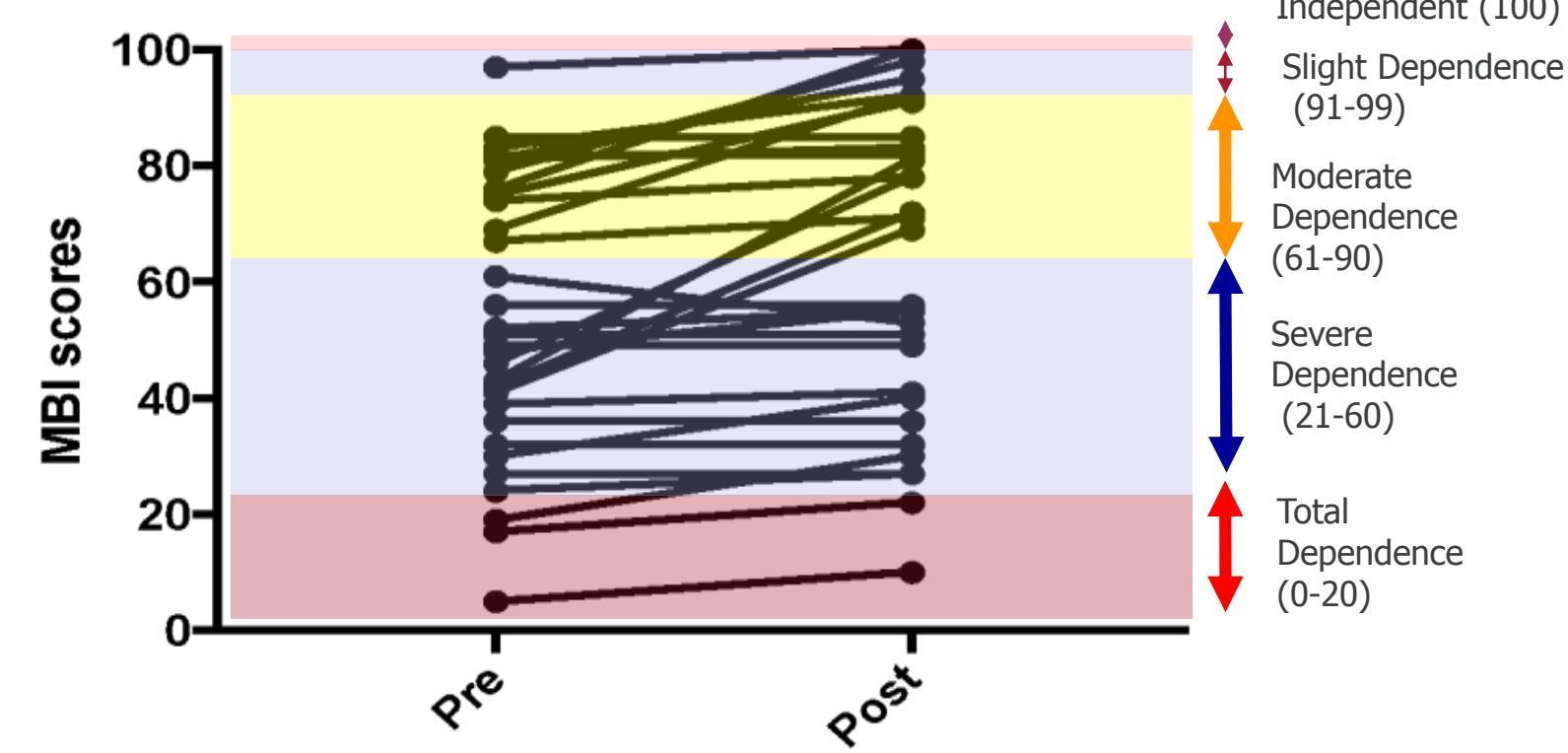
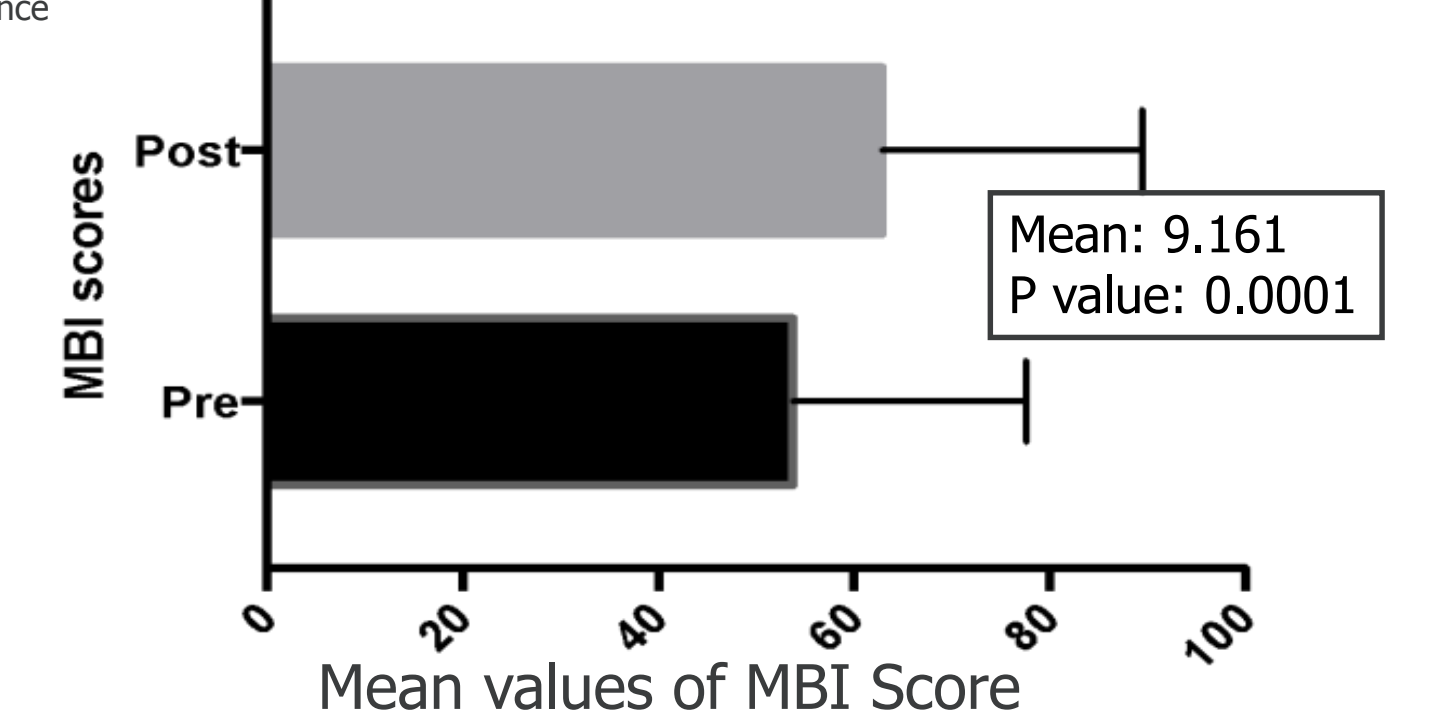


Figure 2.2 Mean of MBI Score for pre and post- intervention



• Modified Elderly Mobility Scale (MEMS)

Figure 2.3 MEMS Score for each patient

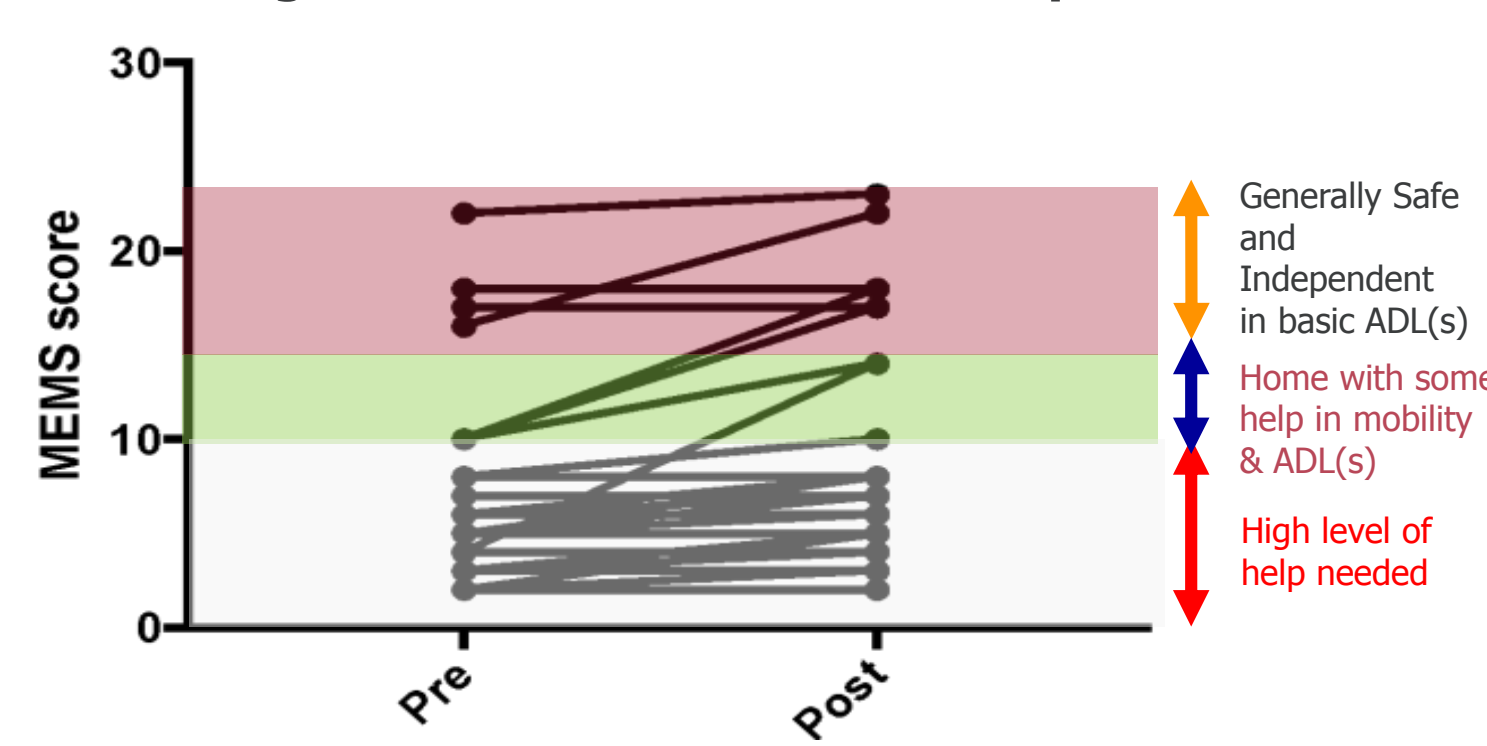
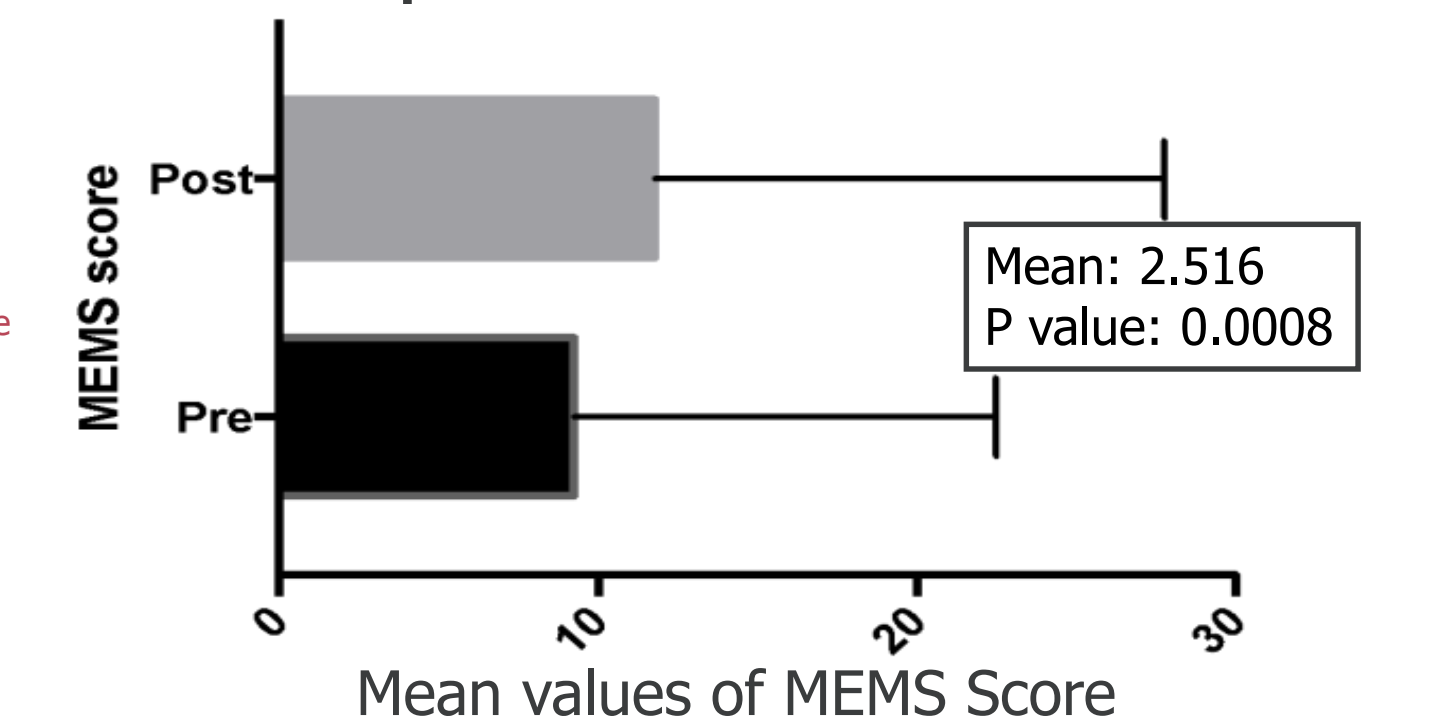


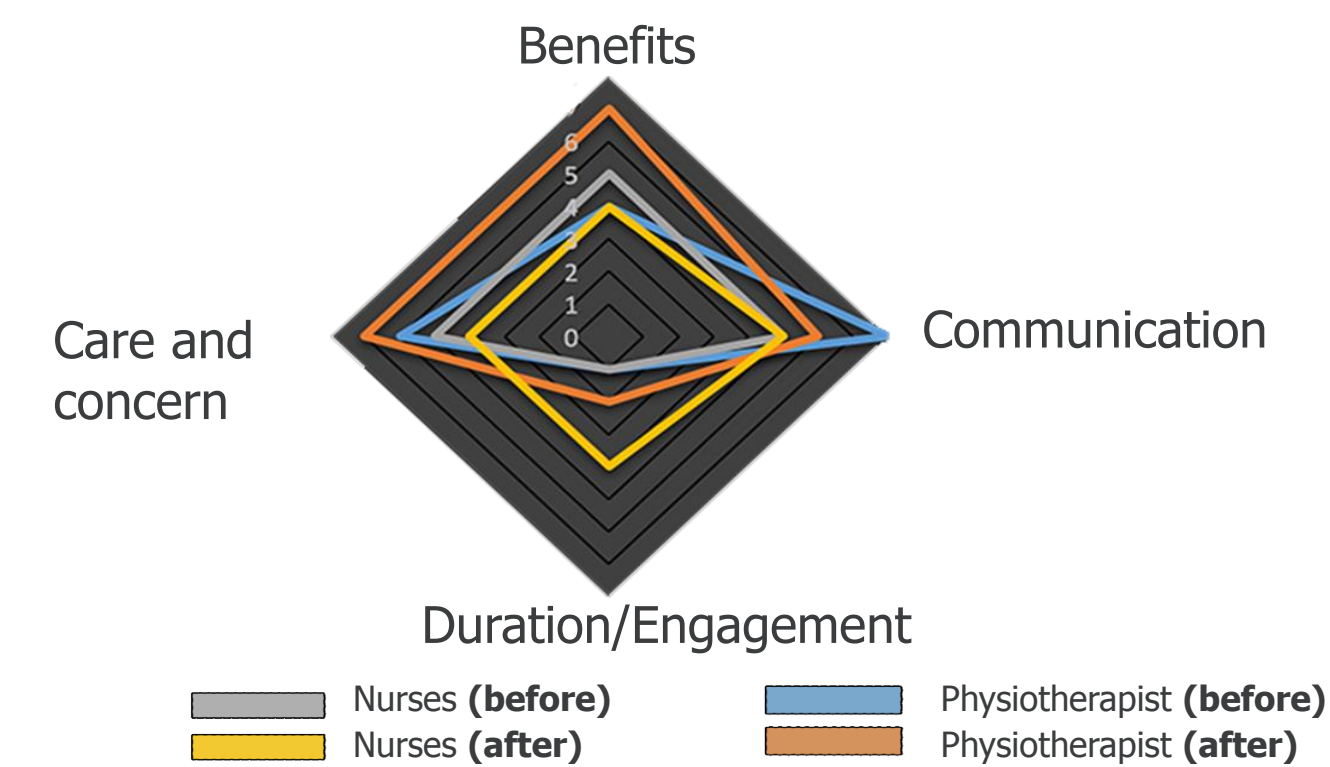
Figure 2.4 Mean of MEMS Score for pre and post- intervention



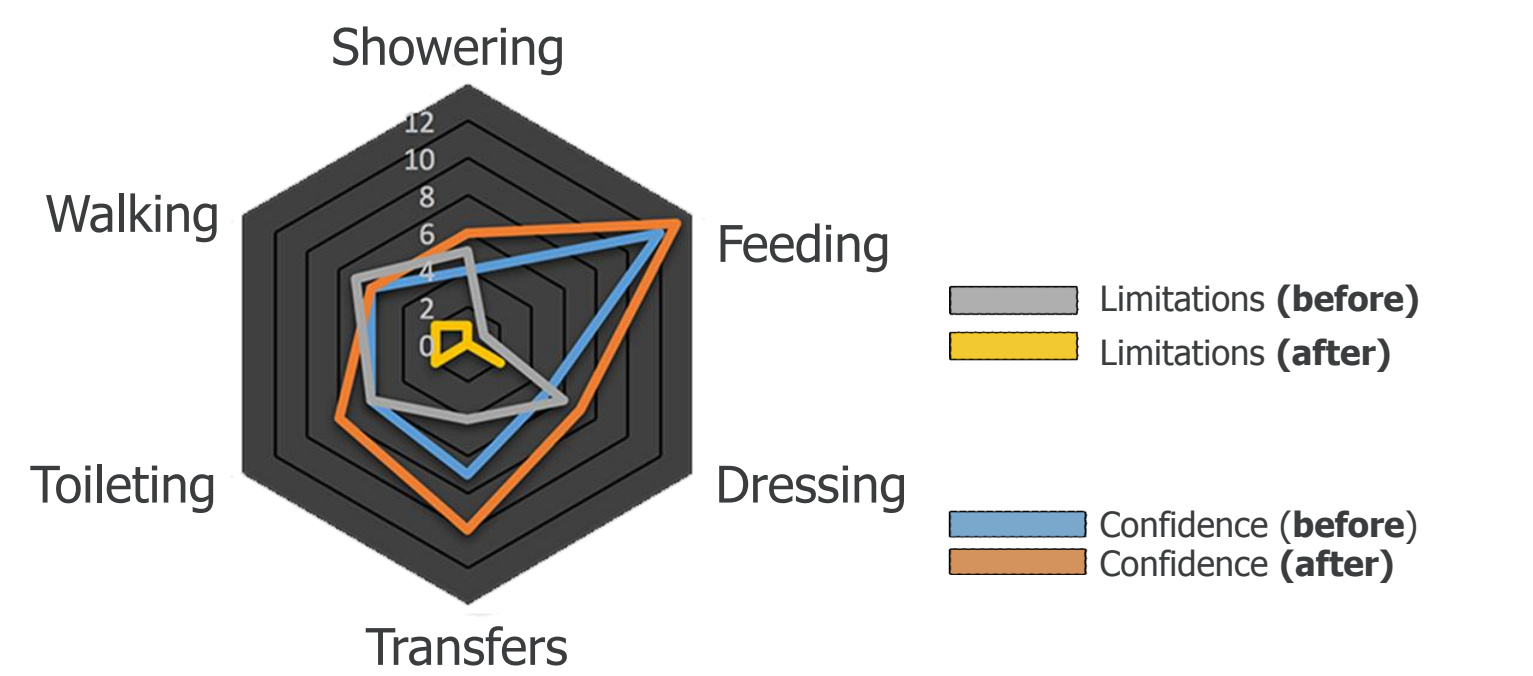
- MBI increased in 21 out of 31 patients; MEMS increased in 17 out of 31 patients
- Improvements in MBI (p=0.0001, r 0.9005) and MEMS (p=0.0008, r 0.984) were statistically significant

3) PATIENT SURVEY: (n=13)

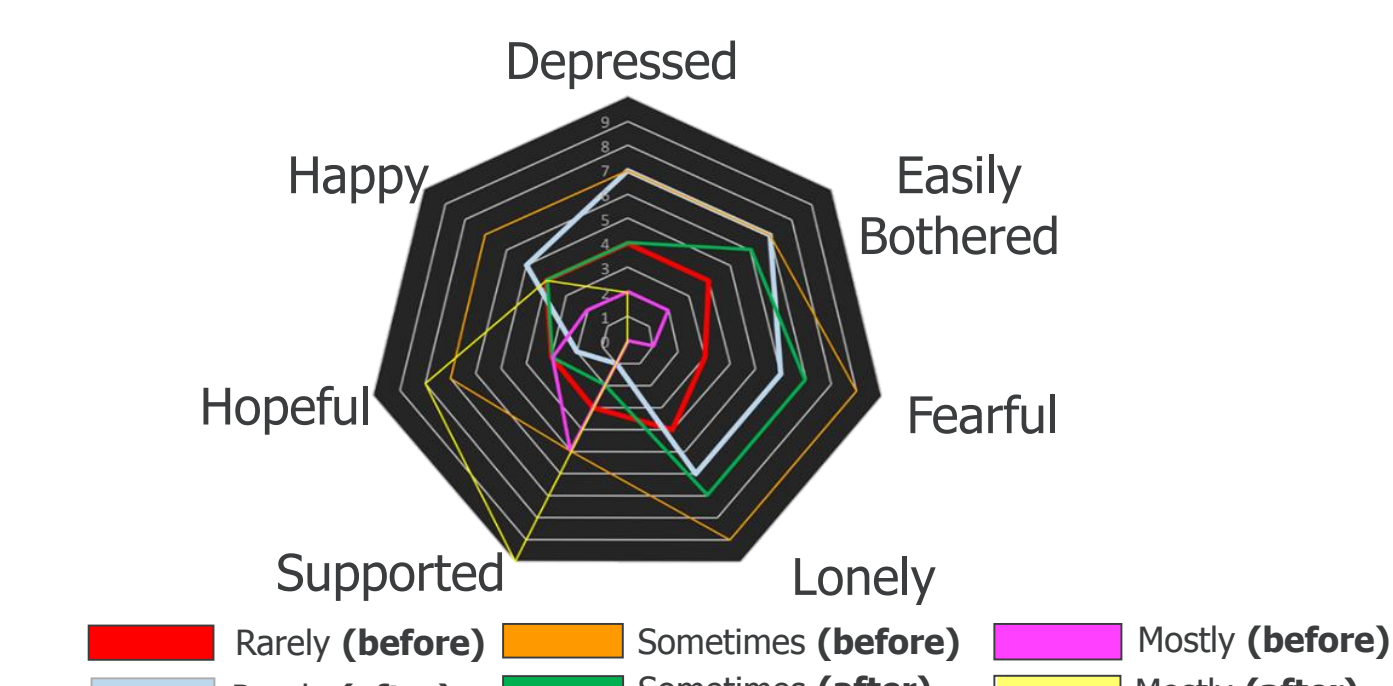
a. PATIENT SATISFACTION



b. CONFIDENCE AND LIMITATION



c. PSYCHOLOGICAL WELL BEING



a. Patient satisfaction

Physiotherapist showed better care and concern. Nurses showed better engagement

b. Confidence and Limitation

Most of the patients showed improved confidence and lesser limitation in their ADLs (activities of daily living)

c. Psychological well being

Most of the patients feels supported and hopeful after our intervention, but not completely happier. Most of the patients felt less bothered and less fearful but sometimes feel lonely

Strategies to Sustain

- **Monitoring:** Team will continue to monitor sustenance for 1 year
- **Motivating:** Sharing the results with all stakeholders once monthly, to act as an motivation to sustain the good work
- **Training:** New nurses and Physiotherapists rotating into the unit to be trained about the changed work process
- **Spreading:** To share in various platforms and spread to other units in our hospital

Lessons Learnt

- Inter-professional collaboration is key in designing a "trans-disciplinary approach for job role sharing" with clear communication of common goal to achieve better patient outcomes
- Culture change can be achieved through communication among champions who share common vision (i.e., better care, better people)
- With this approach no additional cost or manpower was needed to achieve improved patient engagement and outcomes