

EVALUATION REPORT

Trial of the Activity

Performance Measure (APM)

in Occupational Therapy in an

NHS Integrated Care Team

Introduction

This is a report on the trial of the Activity Performance Measure (APM) outcome measure by occupational therapists in an NHS Integrated Care Team (ICT). The APM is an innovative measure of ADL performance and participation (defined as involvement in life situations). The focus of the report is on the outcomes achieved by service users during the OT admission as identified by the APM.

Background and evaluation design

In the summer of 2016, OTs in the locality volunteered to trial the APM with a small number of patients. Like many therapists, they are keen to find new and better ways of demonstrating the value of their service in these increasingly challenging times. The aim was to evaluate the results achieved by the APM in terms of capturing clinically significant change during the OT admission. This evaluation took place in parallel with a similar evaluation currently taking place in the Early Supported Discharge stroke team.

At the end of the evaluation, it was decided that the APM would become one of a suite of outcome measures used in the Trust (alongside Canadian Occupational Performance Measure among others).

The OTs were given one hour's training in how to collect the information required and score the APM, and deidentified results were sent to Phil Murgatroyd (developer of the APM) who produced this report. All the data below are combined so that no service users can be identified. No changes in treatment were received by the SUs as a result of the trial.

See Appendix 1 for a note on the statistics used.

Brief description of the Activity Performance Measure (APM)

The APM consists of 28 ADL activity items, and covers how a person performs in terms of mobility, community mobility, personal care, domestic tasks and community and leisure activities. Each item, if relevant to the service user's lifestyle, is scored between 4 (no limitation) and 0 (total limitation). The scoring is based on concrete aspects of activity limitation like independence/preferred lifestyle, the use of adaptive equipment or techniques, receiving supervision and assistance from carers, or stopping participating in an activity altogether.

The 28 items scores are combined to produce 2 summary scores and also can be used to produce more detail about how a person's ADL performance and participation change during an episode of care.

Results - averages for sample

Activity Summary score

(this summary score indicates the amount of limitation in a person's overall activity performance, with 100 indicating no impairment, 15 indicating full nursing care).

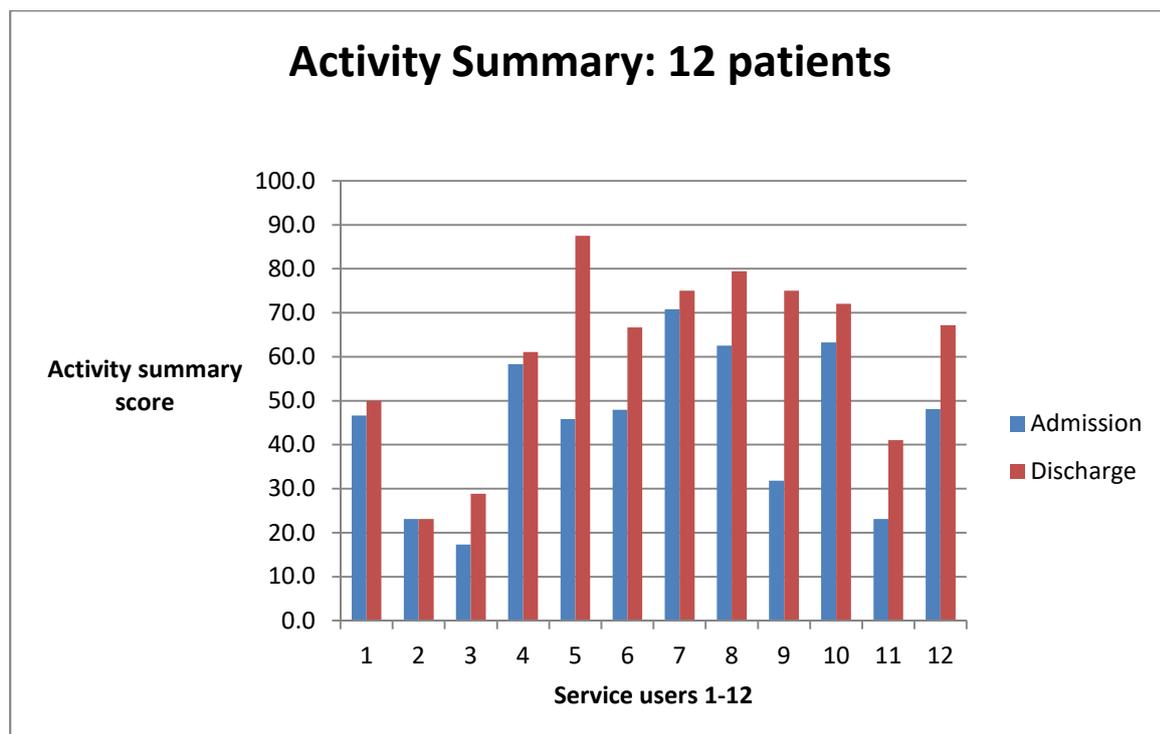
Admission: 44.9

Discharge: 60.6

Average Change: +15.7

What this means:

The sample of 12 service users achieved a high average reduction in limitation in ADL performance during the admission - the fact that this was statistically significant with so few participants gives more confidence that this is a real change rather than random variation. Of the 12 service users, 11 saw a reduction in ADL limitation during the admission (see chart below). The averages of course conceal variation between service users, with Reablement service users like 5 and 9 in particular achieving some very high improvements.



Participation Summary

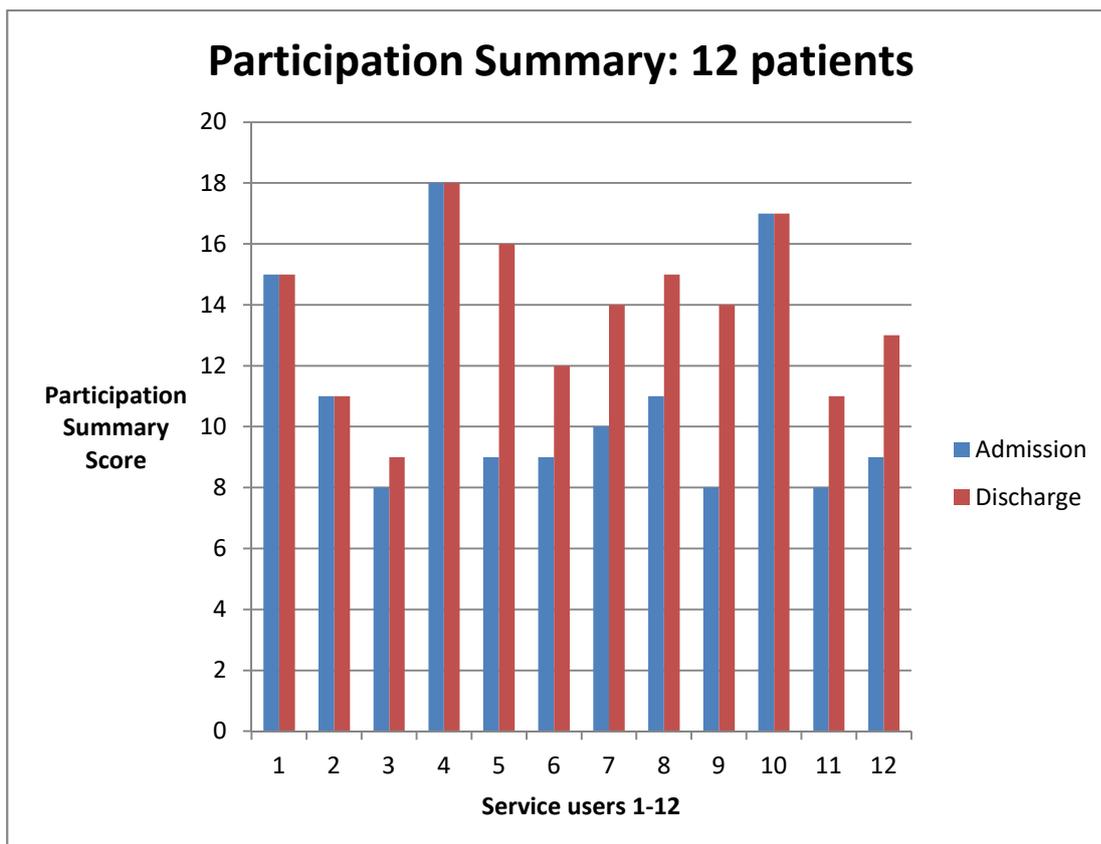
This score is the number of activities, in which a person is involved in. The maximum would be 28 (exceptionally high number of activities) and the minimum would be around 5 (full nursing care only).

Admission: 11.1

Discharge: 13.8

Average change: +2.7

What this means: On average, service users were involved in nearly 3 more activities at discharge each, compared with their situation at admission. Eight of the 12 patients participated in more activities at the end of the episode of OT, compared with admission. Some of these changes were very high e.g. patients 5 (7 new activities) and 9 (6 new activities) - in other words a radically expanded lifestyle. The difference between Reablement and the other services is more marked here, with Reablement tending to help service users progress in participation more - as would be expected given the profile of referrals.



More detail on the improvement achieved during the admission

The APM has the potential to produce additional details about how people's lives change during an occupational therapy admission.

Amount of change

At discharge, the 12 service users were participating in a total of 165 activities combined. They had made an improvement in 64 of these 165 activities, in other words a remarkable 40% of activities were performed with less limitation after the episode of OT.

Return to independence or preferred lifestyle

The 12 service users had regained independence or returned to their preferred lifestyle in 17 activities at discharge compared to their performance at admission (10% of total activities performed at discharge).

No longer received assistance or supervision

People ceased having physical assistance or supervision from carers in 19 activities (10% of activities performed at discharge).

Equipment change

On average, each service user had 4.3 pieces of equipment changed during the OT admission.

Return to participation

At discharge, people had resumed in participation in 32 activities (possibly in a modified way or with support), which they had not been participating in when they were admitted to ICT OT) (approx. 20% of activities performed at discharge).

Areas of most change

The activity items with the biggest average improvement during the admission were:

- 1) Going up and down steps
- 2) Toileting
- 3) Meal preparation, medication management, activities with other people outside the home, going up and down stairs

Therapist Perceptions

The OTs were asked to rate their perceptions of using the APM (anonymously), with the results as follows.

Ease of use: 9/10

How well did it capture clinically significant change? 9/10

Time taken to complete: Once familiar, 5-10 minutes

Would the OTs recommend continuing to use APM as outcome measure in the service: Yes (100%)

Free text comments – The comments were generally positive that the APM captured change by service users well, but participating OTs felt they needed more experience of using it to fully assess strengths and limitations.

There were some remarks made about how training could be improved, including the option of follow up to iron out teething problems in the initial learning process.

Example therapist comment:

“I like its transparency, the fact that it is validated and the fact that it does what it says on the tin. It captures everything that can be captured objectively about clinical effectiveness and it does not lend itself to 'juicing up' or 'interpreting' the variables being recorded/reported.”

Summary

The service users included in this trial of the APM showed clear gains during the occupational therapy admission in both reducing the amount of limitation in their activity performance, and also increasing the range of activities they were involved in.

The changes they achieved with OT were varied - for example in some cases they returned to independence, in others the need for carer input was ceased, while in other cases they returned to involvement in a valued parts of their lifestyle but in a modified way. People improved in mobility and basic personal care tasks, but also in community and leisure tasks important for quality of life and autonomy and choice in a broader sense.

There are of course limitations in a study of this nature, in particular the convenience sample used. However, the potential for demonstrating more about the progress achieved by service users receiving occupational therapy in this setting appears clear. Given the high sensitivity to change seen in the APM, routine collection of APM scores for all OT referrals appears unnecessary. Instead a truly representative sample of 50 or so referrals would produce reliable information about each OT stream separately. However, it would be necessary to ensure that resources are available for training, monitoring data quality, processing the data and turning it into a meaningful report.

Author: Phil Murgatroyd

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Appendix 1 - Statistical note

Statistical significance was tested using the Wilcoxon test.

For both the Activity and Participation summaries, the difference in the results between admission and discharge were statistically significant at a level of $p < 0.05$. In non-technical terms, this means: **“Statistically significant results are those that are interpreted to not occur purely by chance and therefor have other underlying causes for their occurrence.”**

In terms of the size of the change was seen in the Activity and Participation summaries between admission and discharge, the effect size was high (Robust nonpooled Cohen’s D of over 0.7). This means that not only was there a non-random change between admission and discharge, but furthermore the amount of change was high.