THE UNIVERSITY OF NORTHAMPTON

Northamptonshire Healthcare NHS
NHS Foundation Trust

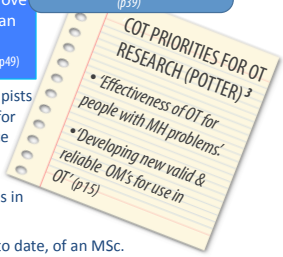
Justifying mental health OT practice: Analysis of routine outcome measurement data

Background

The need for Occupational Therapy (OT) to demonstrate the effectiveness of services is now more important than ever. [1,2]

2008: 'We can only be sure to improve what we can actually measure'[1] (p49)

2012: 'outcomes, which show the effectiveness of services'[2] (p39)



The College of Occupational Therapists (COT) are fully aware of the need for OT's in mental health (MH) practice to provide efficacy of services. The COT also acknowledge a need to develop new outcome measures in order for this to be achieved.[3]

This poster presents the findings, to date, of an MSc. Advanced Occupational Therapy degree research project.

[1] DoH(2008) *High Quality Care For All: NHS Next Stage Review final report*, London: The Stationery Office.
[2] DoH (2012) *Health & Social Care Act*, London: The Stationery Office
[3] Bannigan, K. *et al* (2008) Priorities for OT Research in the UK: Executive Summary of the POTTER Project, *BJOT*, 71(1), 13-16
[4] Du Toit, V. (2004) Patient volition & action in occupational therapy (3rd ed.), Pretoria: Vona & Marie du Toit Foundation
[5] Casteleijn, J.M.F. (2010) Development of an outcome measure for occupational therapists in mental health care settings, PhD thesis, University of Pretoria: Pretoria.

Methodology

This quantitative piece of descriptive research provides a retrospective analysis of routine outcome measurement data collected by an inpatient MH OT service during 2012. The study aims to identify and report, via statistical analyses, correlations, associations and trends that arise from the data.

MH Beds per ward:	Site A	Site B
PICU (Intensive Care)	0	7
Admission & Assessment	10	10
Treatment (male)	15	17
Treatment (female)	15	18
Total Beds	**40**	**53**

Table 1.

The service operates across two Adult Acute In-patient MH NHS Hospitals in the East Midlands area (see Table 1).

Creative Ability & The Activity Participation Outcome Measure

The service implements the **Vona du Toit Model of Creative Ability** (VdT MoCA)[4] and the **Activity Participation Outcome Measure** (APOM) [5] as it's chosen OT practise model and associated outcome measure.
The APOM (see Figure 1) is an 8 domain, 53 item OT measure based on the levels of Creative Ability as described by Vona du Toit[4]. The APOM is administered by an OT following initial assessment and re-administered following a period of treatment.

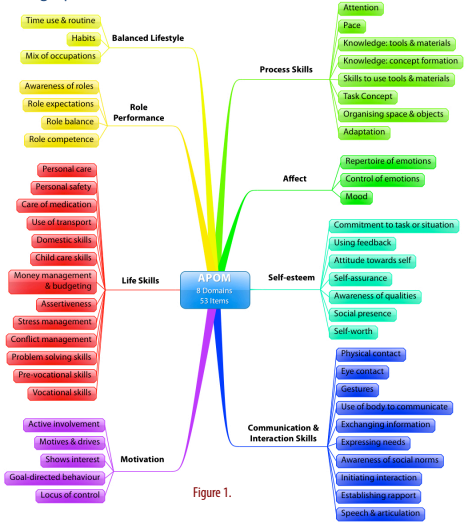


Figure 1.

Further information on the VdT MoCA and the validity & reliability of the APOM can be sourced from the following websites:

http://upetd.up.ac.za/thesis/available/etd-02102011-143303/
https://secure.apomtherapist.com/
www.modelofcreativeability.com

Sample

The research population consisted of 1058 admissions (52% male) across both sites during 2012. 334 (31.6%) of the population had at least 1 completed APOM.

Total (with Baseline & Final APOM):		**194 (18.3%)**	**48% male**
	Age:	20-78yrs	M = 43yrs
	Length of Admission:	5 – 344 days	M = 66.5days
Main diagnoses (ICD-10 group):			
	F20-29 (Psychotic dis.)	94 in-pt's	M = 75 days
	F30-39 (Mood dis.)	55	M = 58
	F40-69 (Neurotic & PD)	33	M = 64
OT Rx's:	*Group*	0 – 131 sessions	M = 22
	1:1	0 - 54	M = 9

Table 2.

Table 2 shows demographic information for the final research sample (n=194, 18.3% of the population). This convenience sample included 18 different ICD-10 diagnoses, the 3 main ICD-10 groups are discussed.

Research Findings

Figure 3: not significant at p > 0.05

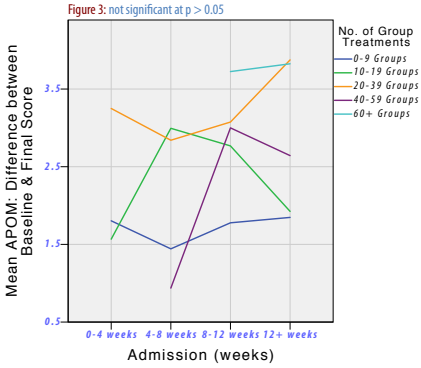
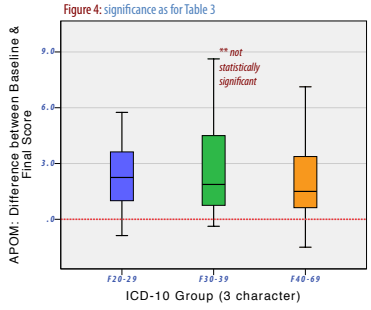


Figure 2: significant at p<0.001

	R^2	df	Bivariate Baseline – Final	Partial Correlations: Total Rx's	Hospital	Age	Gender	Admission
F20-29 (Psychotic dis.)		90	24.3%	28.7%	24%	24%	25.2%	25.2%
** F30-39 (Mood dis.)		52	2.9%	2.9%	3.2%	2.9%	3%	2.9%
F40-69 (Personality & Neurotic dis.)		30	31.5%	35.2%	32.8%	32.3%	31.2%	30%
APOM Overall		191	25.1%	26.7%	25%	25.5%	25.1%	24.5%

Table 3: 2 tailed, all significant at p < 0.001, apart from
** = not significant at p > 0.05

Figure 4: significance as for Table 3



Key Findings:

- Tests confirmed the data were normally distributed.
- Significant differences between mean scores for Baseline & Final APOM's were established (t (193) = 17.497, p <0.001 (two-tailed), 95% CI 2.1 > 2.7).
- The mean overall difference between Baseline & Final APOM's was 2.41 (3.0 = 1 level of Creative Ability), with outcomes scores ranging from -1.5 to +9.38 after treatment. A large effect size was measured across all 8 domains (d = 1.2617 overall).
- Figure 2 shows the sample distribution by gender (females = n101). Male Baseline APOM scores were higher (m = 7.98) than females (m = 7.47), but females showed the greatest difference between Baseline and Final Ax (m = 2.58, SD = 2.19, males: m = 2.22, SD = 1.55).
- Figure 3 results are only applicable to the research sample, but show an interesting trend when viewing length of admission by group Rx's received. Those attending 0-9 group Rx's showed least improvement overall. Those attending 20-39 groups showed a strong positive change across all lengths of admission.
- Figure 4 shows how scores are distributed across the 3 key diagnostic groups. F30-39 shows the greatest range but results were not deemed statistically significant. ICD-10 groups F20-29 & F40-69 were significant. Partial correlations in Table 3 showed that total OT Rx's received had the biggest impact on shared variance when compared to any other independent variable being measured. Suggesting OT Rx is responsible for the biggest change in correlations between Baseline & Final APOM's.

Matthew Carter
Specialist OT
Adult Acute In-patient MH Services
Northamptonshire Healthcare
NHS Foundation Trust
matthew.carter@nhft.nhs.uk

Roshni Khatri
Senior Lecturer,
University of Northampton
Roshni.khatri@northampton.ac.uk

Summary

This ongoing research study provides statistical evidence that proves most MH in-patients occupational performance, or creative ability, improves over the course of an admission.
This study can not infer causality as there is not control group. What it does do is identify trends and relationships in OT outcome measurement data that recognise, with statistically significant evidence, a difference between patient's outcomes based on the OT intervention they receive. Many other variables (such as medication, a safe and supportive environment, structure, reduced stress etc.) arguably have a greater influence on an in-patient's mental health recovery. However, this study, despite being of relatively small scale, provides evidence to suggest the VdT MoCA is an effective OT practise model in an in-patient MH setting and the APOM is a tool that is sensitive to detect this change.