

Using the Model of Creative Ability as an outcome measure

Daleen Casteleijn

Senior lecturer

Occupational therapy Department

University of the Witwatersrand

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- Weakest link
- Not a routine task
- Challenges in mental health to measure outcomes
- Risks in measuring outcomes
- Quality assurance
- Quality of care
- Minimum standards of practice

Introduction

- Outcomes – something you aim for after completion of a rehab programme or after a session
- Evidence – seen in the outcomes
- How measurable is your outcomes?
- Will your outcomes convince consumers, management etc of the evidence?
- Supported by research?

Evidence and outcomes

- Evidence-based practice and levels of evidence
 - Level 1: systematic review and meta-analytic studies
 - Level 2: Randomised control trials (RCT)
 - Level 3: Trials without randomisation
 - Level 4: Non-experimental studies
 - Level 5: Qualitative designs, opinions of experts
- Routine outcome measurement

EBP vs ROM

- Management functions: predicting recovery, calculating efficiency, effectiveness and efficacy of services, allocating resources, determining critical pathways
- “Rhetoric talking-up the benefits of routine standardized outcome measurement remain largely speculative”. (Lakeman 2004)
- “Promising much, delivering little”. (Holloway 2002)
- Huge gaps still exists between potential for quality improvement in health care and the reality, in spite of efforts to measure outcomes

Pro's and con's of ROM

- Individualized outcomes to be negotiated with the service user to accommodate his/her needs. (Lakeman 2004)
- General lack of responsiveness to users' needs (Walburg et al. 2006)
- Driven by availability of data rather than "what is the problem and what is the outcome" (Gilbody, House & Sheldon 2002)
- Confounding variables
- Measure outcomes in multiple relevant domains and use standardized instruments appropriate for the clinical condition treated
- "Using better what we know than by learning new things". (Brooke, McGlynn and Shekelle 2000)

- OTs reluctant to use research as evidence
- Holistic view of humans
 - Environment: physical and social
 - Occupational performance
 - Internal performance components
- Relevance of “other” research?
- Not acknowledging indigenous knowledge and experience

The problem

“An outcome measure is a tool to ***accurately*** measure a ***particular attribute*** of ***interest to the patient and the therapist*** and is expected to be ***influenced by intervention***”.

Cole et al. (1995)

**Definition of outcome
measurement**

- AusTom
- COPM
- MOHOST
- ICF – classification or outcome measure?

Available outcome measures

- Sudsawar (2005) : “measuring pre- and postintervention performances in natural environment during daily activities would conceivably be a convincing evidence of intervention effectiveness”.
- Bowman & Llewellyn (2002): OTs should embrace outcome research and demonstrate effectiveness of their service.

Just do it

- Activity participation Outcome Measure
- Domains emerged from mental health settings
- Other areas who treat similar domains
- Unique features of report generation and spider graphs of change in activity participation
- Scoring system based on Creative Ability

Tone			Self-differentiation			Self-presentation		
Therapist-directed	Patient-directed	Transition	Therapist-directed	Patient-directed	Transition	Therapist-directed	Patient-directed	Transition
1	2	3	4	5	6	7	8	9

Passive Participation			Imitative Participation			Active Participation		
Therapist-directed	Patient-directed	Transition	Therapist-directed	Patient-directed	Transition	Therapist-directed	Patient-directed	Transition
10	11	12	13	14	15	16	17	18

APOM

- Content validity
 - 6 raters
 - Scale of 1 – 5 (item fits poorly = 1, fits very well = 5)
 - Content validity index
 - Item-level
 - Scale-level

Psychometric properties

Domain	Item-level content validity index (I-CVI)	Scale-level content validity index – average method (S-CVI/Ave)	Scale-level content validity index – universal agreement method (S-CVI/UA)
Process Skills	0.95	0.93	0.61
Comm/Interact Skills	1.00		
Life Skills	0.89		
Role Performance	1.00		
Balanced Life Style	0.83		
Motivation	0.87		
Self esteem	0.97		
Affect	0.94		
Mean I-CVI	0.93		

Content validity

- Factor analysis
- High factor loadings (Life skills 6 = 0.618)
- Correlation matrix

Factor / Domain	Process	Comm	Life	Role	Balance	Motiv	Self es	Affect
Process	1							
Comm	0.856	1						
Life	0.798	0.894	1					
Role	0.650	0.780	0.911	1				
Balance	0.670	0.744	0.801	0.807	1			
Motivat	0.748	0.826	0.799	0.813	0.861	1		
Self est	0.708	0.781	0.954	0.806	0.831	0.945	1	
Affect	0.641	0.763	0.944	0.762	0.753	0.825	0.872	1

Construct validity

DOMAIN	n	Cronbach alpha
Process skills	40	0.786
Communication/Interaction skills	39	0.868
Life skills	31	0.998
Role performance	39	0.912
Balanced life style	41	0.824
Motivation	41	0.879
Self esteem	37	0.926
Affect	41	0.828

Internal consistency

- Number of items per domain and the sample size. A small number of items per domain (3 or less) could result in moderate to low alphas.
- Two of the domains contain only three items; Balanced life style and Affect, yet they did not yield low alphas.
- Small sample sizes could on the other hand provide large reliability coefficient and could be an explanation for the high Cronbach alphas in this study. (Spiliotopoulou 2009)

Interpretation of Cronbach alpha

Paired observations: Final and baseline		N	Correlation	Significance
Pair 1	Process skills	31	.786	.000*
Pair 2	Communic/Interact	31	.809	.000*
Pair 3	Life skills	31	.851	.000*
Pair 4	Role performance	31	.852	.000*
Pair 5	Balanced life style	31	.784	.000*
Pair 6	Motivation	31	.797	.000*
Pair 7	Self esteem	31	.840	.000*
Pair 8	Affect	31	.869	.000*

Effect size

Domain	Mean difference	Standard deviation	Effect size	t-distribution	Level of significance
Process	1.12558	1.43646	0.783	4.363	.000*
Comm/Inter	.77993	1.48363	0.526	2.927	.006*
Life skills	.77589	1.33023	0.583	3.248	.003*
Role Perf	.94355	1.49124	0.632	3.523	.001*
Bal Life st	1.18280	1.66631	0.710	3.952	.000*
Motivation	1.25161	1.51962	0.823	4.586	.000*
Self esteem	.98310	1.58658	0.620	3.450	.002*
Affect	1.08602	1.41675	0.767	4.268	.000*

Significant change

- Statistical
 - A greater mean difference reflects more sensitivity to detect change after intervention.
 - 0.1 = small effect,
 - 0.3 = medium effect and
 - 0.5 = large effect.
- Clinical
 - What is expected
 - Client group
 - Availability of service etc

Interpretation of effect size

- Benchmarking
- What is working better for whom
- Cost of service delivery
- Resources available
- Best practice

Comparing to other facilities

- Item bank
- CAT – computer-assisted technology
- Management reports – what the clients needs
- Effect size and spider graph discussion with clients

Client-centered approach

- Trial of 6 months
 - Is it satisfying the needs of the client population
 - User-friendly
 - Assisting with management of service
 - Detecting change
- Unique soft ware with extra features
- License for one year
- Accreditation examinations (on-line)

The way forward

- APOM consistent and valid tool to detect change in activity participation
- Provide the much needed evidence

**“Best practice
of today is
standard practice of tomorrow”
(Law & Baum 2001)**

Conclusion

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