

Becoming evidence based: The VdTMoCA in outcome measurement

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The need for evidence-based practice is no longer a foreign concept for OTs but in spite of all the attention it received since the 1990s, we are still not sure whether the positive findings of research that OTs are doing are finding its way to clinical practice. So, the issue is: How do we change practice when we have the evidence?

Research utilisation - RU

- Using up-to-date research in clinical practice
- Different types:
 - Instrumental e.g. guidelines
 - Conceptual e.g. new insights or theories
 - Persuasive e.g. legitimise or justify practice



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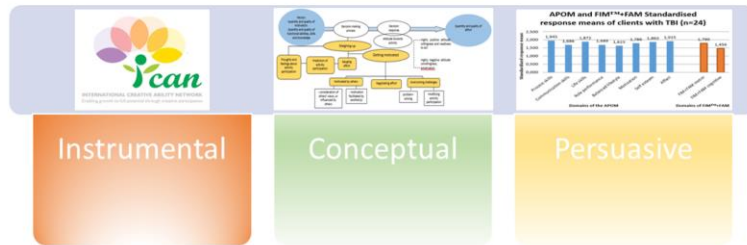


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What we need to be more concerned about nowadays is research utilisation. Wressle and Samuelsson explains it as using up to date research in clinical practice. Estabrooke defined 3 types. Instrumental utilisation refers to guidelines or findings that you start using in a specific way. Conceptual utilisation is when new insights or theories emerge from research and you apply it to practice. The last one, persuasive utilisation refers to findings that legitimise or justify practice.



VdTMoCA evidence



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Today I would like to zoom in to the evidence-base of the VdTMoCA. How well are we doing? Let's use the 3 types of RU from Estabrook and see what we have achieved so far. And what a privileged to present it to this particular audience because so many of you have made contributions to build the evidence and translate it into practice.

Let's start with Instrumental utilisation. What I found is that the guidelines that are research-based, are mostly assessments and outcome measures. The first one is the Creative Participation Assessment developed by Dain van der Reyden. I think this is the most used assessment in the model. My Masters study in 2002 showed that the CPA is a valid and reliable tool patients with Schizophrenia. The next instrument is the Activity Participation Outcome Measure. For the people in the audience who does not know the APOM, it is a measure that I developed to track change in patients during and after intervention. The APOM consists of 8 domains and the scoring system of the APOM is based on the levels of Creative Ability.

Instrumental utilisation

Research-based guidelines in the VdTMoCA

- Mostly assessment guidelines
 - Creative Participation Assessment
 - APOM
 - Activity Participation Assessment

ACTIVITY PARTICIPATION ASSESSMENT

GUIDELINES FOR THE ASSESSMENT OF ACTIVITY
PARTICIPATION IN THOSE SUFFERING FROM
MENTAL ILLNESS

A TOOL FOR OCCUPATIONAL THERAPY CLINICIANS
IN MENTAL HEALTH PRACTICES

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The Activity Participation Assessment is a guideline document that suggest assessments that occupational therapists can use to specifically assess the domains of the APOM.

Instrumental utilisation

- In progress
- Many others

	Passive Participation	Imitative Participation	Active Participation	Competitive Participation
Motivation	Motivated to produce tangible or intangible product. Desire to be part of the team but reliant on team, requiring input and supervision from others to be able to perform roles and responsibilities. Little displayed passion or enthusiasm for the job.	Motivated to perform according to set norms and standards in the workplace. Satisfied with the status quo. Desires/seek praise from others to maintain motivation.	Motivated to achieve norms in an individualistic way. Prepared to contribute and to compare own actions and abilities to others. Individual has a sense of leadership/responsibility for others. Outward looking - a sense of giving more of self. Motivated to stretch oneself.	Motivated by self-actualisation, driven by a need to contribute more or do better than others in a positive way. Driven to improve standards. A sense of altruism present.

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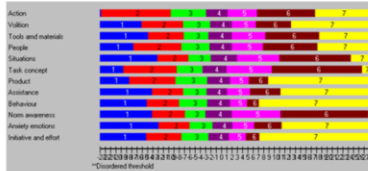
Another instrument that is still under development, is the Work Participation Matrix. This is a tool that is also based on the levels of Creative Ability but focuses on supervision and development of staff. Sarah Wilson will be doing a presentation on this study in one of the other sessions.

There might be other guidelines available but what I am focusing on, is the research-based guidelines

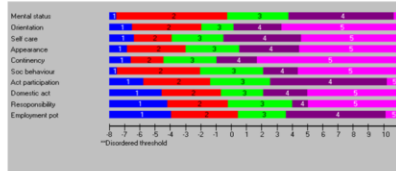
Conceptual utilisation

What evidence do we have that the levels of creative ability exist?

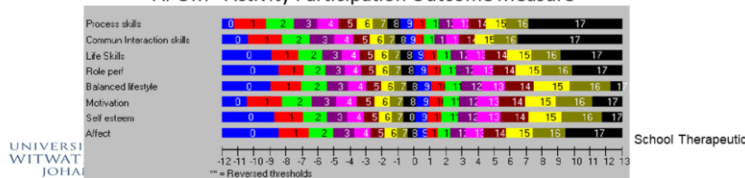
CPA – Creative Participation Assessment



FLOM – Functional levels Outcome Measure



APOM – Activity Participation Outcome Measure



Let's have a look at conceptual utilization. We as VdTMoCA practitioners, believe in the levels of creative ability but what evidence do we have that the levels actually exist and how valid are these levels?

There are many methods in statistical analysis to investigate validity but the best one in my opinion and for this question above was the Rash Measurement Model.

I use three well known and well used instruments in South Africa, The Creative Participation Assessment, The Functional Levels Outcome Measure and the Activity Participation Outcome Measure. I don't have time to go into the detail of the analysis but the study revealed was that all three instruments showed that the levels are ordered in a linear way. The clinical importance of this is that we can be sure that each level of creative ability is well observed in the patients that we serve. We have a model which is well suited to measure change.

Using measurement principles to confirm the levels of creative ability as described in the Vona du Toit Model of Creative Ability

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ABSTRACT

Many occupational therapists in South Africa and the United Kingdom are using the Vona du Toit Model of Creative Ability with its associated assessments and outcome measures in their practice settings. Although there appears to be strong clinical confidence in the use of these instruments that apply the levels of creative ability in the scoring system, little evidence to date has been published on the validity of the levels.

The aim of this study was to investigate three instruments based on the levels of creative ability: the Creative Participation Assessment (CPA), the Functional Levels Outcome Measure (FLOM) and the Activity Participation Outcome Measure (APOM), for evidence that the levels indeed represent increasing amounts of ability and that the scoring of the three instruments follow a linear or hierarchical pattern.

A secondary data analysis was done using the threshold ordering of the Rasch Measurement Model to indicate whether the levels of creative ability exist. Results showed that all three instruments indeed represent increasing amounts of ability in a person and that the levels of creative ability exist. Although these findings are significant, it is the first in a series of analyses and the remaining assumptions in the Rasch Measurement Model still need to be tested.

Key words: Vona du Toit Model of Creative Ability; outcome measures; Rasch Measurement Model; threshold ordering

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The detail of the study has been written up in a journal article.

Conceptual utilisation

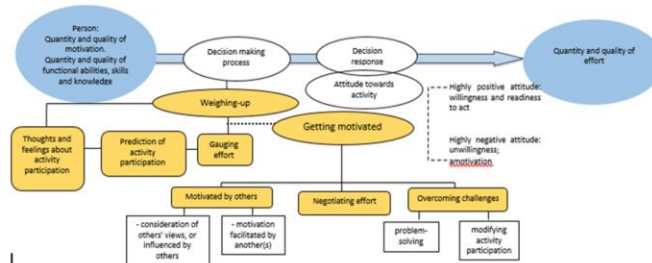


Figure 9-8 The model of the formal Theory of Effort for Relating.

Sherwood W. 2016. An investigation into the theoretical construction of effort and maximum effort as a contribution to the Theory of Creative Ability. PhD study, University of the Witwatersrand. Available at: <http://hdl.handle.net/10539/21261>

The next piece of conceptual utilisation is the wonderful work of Wendy Sherwood. She just presented it to you. This study added evidence of the concept of effort, what does it mean to have minimum effort or maximum effort and how do we as occupational therapists observe effort.

Conceptual utilisation

- In progress: the levels of creative ability as observed in children
- Presentation by Lyndsay Koch in another session



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Lyndsay Koch embarked on a study to validate the levels as observed in children. She will be presenting some of her preliminary findings of Phase1 of her study in a later session today.

Conceptual/Persuasive Utilisation

Fasloen Adam's study on collective occupations:

*Development of descriptors for domains and items
for collective participation in occupations*

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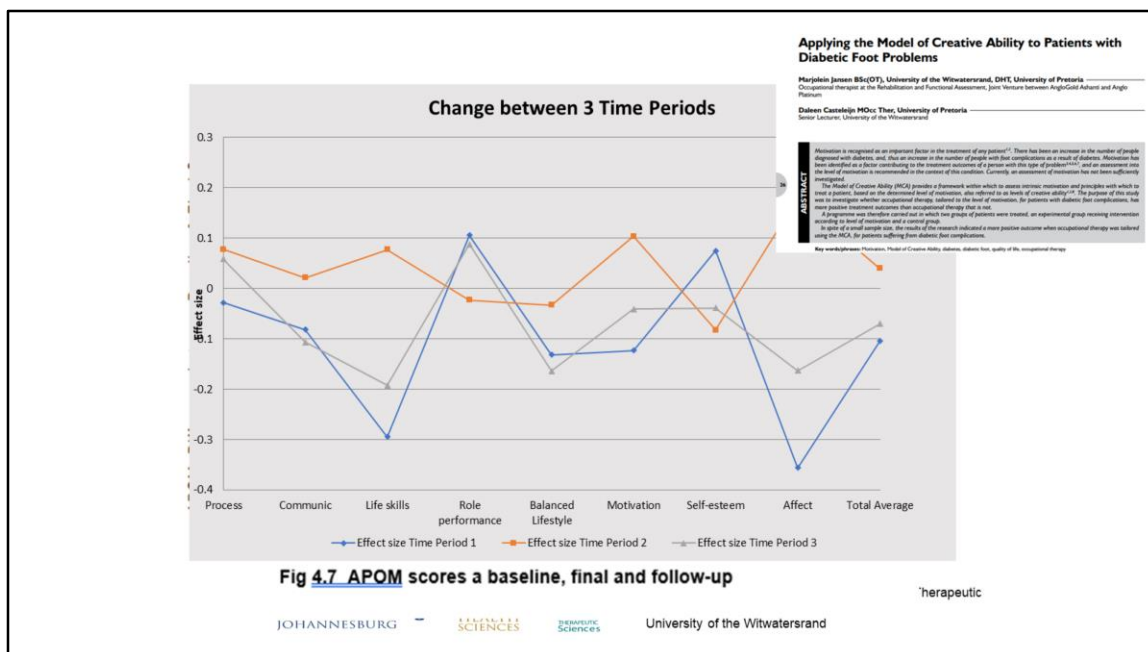
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Fasloen Adams did her PhD on collective occupations. The first part of her study covered conceptual aspects of collective participation and the second part could be viewed as persuasive utilisation where she developed domains and items to be used in measuring collective participation in occupations.

Domains and items for collective participation (Adams 2016)



These are the domains with the items that was developed for collective participation. This study is important as it is the first study to show that the VdTMoCA can be used in communities and populations and not only with individual clients.



And now persuasive utilisation – how do we justify our practice when using the VdTMoCA. For those who know me well will know that I will always favour routine outcome measurement as a good basis for evidence of your own practice. Several studies have been done to date where the levels of creative ability have been used, either through assessments like the CPA or the APOM to indicate change during and after treatment.

All these studies generated evidence from the clinical settings that justify the need for occupational therapy.

Example of a typical routine outcome measurement study in a clinical setting



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I would now like to ask my colleague Olindah Silaule to present her MSc study to show how a typical routine outcome measurement study is conducted in the clinical setting.

Change in activity participation of the mental health care users attending occupational therapy programme in an acute mental health unit within a rural context in SA.

Olindah Silaule – MSc Wits

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Introduction

- ◊ Lack of evidence for effect of interventions is an ongoing challenge facing SA healthcare services.
- ◊ OTs face difficulty providing evidence for services, as a result are unable to show their valuable clinical contribution.
- ◊ Increasing emphasis on implementation of routine outcome measurement(ROM) in to practice.

Aim of the study

To describe and document changes in activity participation of MHCUs at Tintswalo Hospital through ROM.

Research site

- ◊ Tintswalo hospital(Mpumalanga province).
- ◊ District hospital with bed capacity of 450 and caters for 16 community clinics.
- ◊ 54 bed unit acute mental health unit (largest in MP).
- ◊ Catering for: acute, chronic and forensic patients.
- ◊ MDT: - Psychiatrist (part-time).
 - ◊ General practitioner.
 - ◊ Social worker.
 - ◊ 2 OT's and 1 comm.serve.
 - ◊ Psychologist.
 - ◊ Nursing staff.



Methodology

- Quantitative study : one group pre/post test design.
- Measurement instrument: Activity Participation Outcome Measure (APOM).

Level 1 – Tone			Level 2 - Self-differentiation			Level 3 - Self-presentation		
Therapist-directed	Patient-directed	Transitional	Therapist-directed	Patient-directed	Transitional	Therapist-directed	Patient-directed	Transitional
1	2	3	4	5	6	7	8	9
Level 4 - Passive participation			Level 5 - Imitative participation			Level 6 - Active participation		
Therapist-directed	Patient-directed	Transitional	Therapist-directed	Patient-directed	Transitional	Therapist-directed	Patient-directed	Transitional
10	11	12	13	14	15	16	17	18

Methodology

- Participants engaged in the OT programme as per routine:
 - Tuesday – Friday : Group intervention for in patients, individual sessions for out patients

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:00 – 09:00	08:00 – 08:30	08:00 – 09:00	08:00 – 08:30	08:00 – 08:30
Rehab Meeting	Admin	Psychiatry Meeting	OT staff Meeting (rehab)	Rixile Health Education
09:00 – 09:30	09:00–13:00	09:00 – 10:00	09:00 – 10:00	09:00 – 10:00
OT staff meeting (rehab)	Ward Rounds	Supervision meeting	Screening and green files	Admin
10:00 – 13:00		11:00 – 12:00	11:00 – 12:00	10:30 – 12:00
Ward Rounds		Self - care	Insight group	Survival skills
L	U	N	C	H
14:00 – 15:00	14:00 – 16:00	14:00 – 15:00	14:00 – 16:00	14:00 – 15:15
Screening and green files	Active Recreation group.	Activity group/ Stimulation group: Level 1 patients.	Activity Group: Level 2 patients.	Social Skills(unstructured)
15:15 – 16:00		15:15 – 16:00		15:30 – 16:00
Admin		Admin		Exercise group: Physiotherapy and OT staff.

Methodology

- Data collected over 6 months.
- All 8 domains measured.
- 5 sets of data collected (*Baseline, Interim, Discharge, Follow-up and Final Assessment*).
- Data analysis:
 - Descriptive analysis was done by calculating the mean APOM score of the total samples for each domain at baseline, interim, discharge, follow-up and final assessments.
 - Effect sizes were calculated using Cohen's *d* and Cohen's *r*.

Overview of the sample

64 MHCUs(acute and chronic).

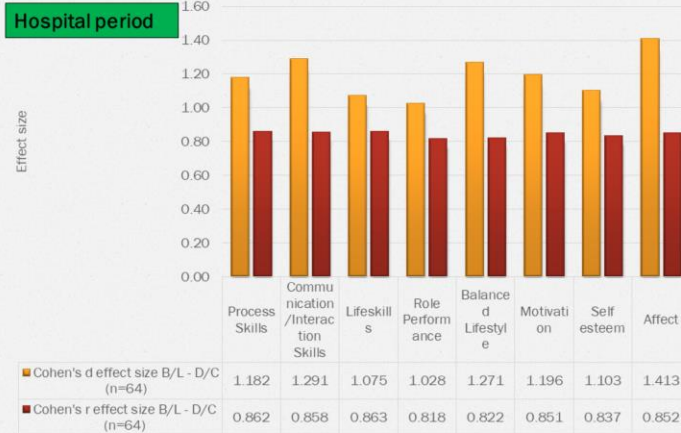
Age in Years	Male (n=48)	%	Female (n=16)	%
<20	2	3.13	1	1.56
20-29	27	42.19	7	10.94
30-39	12	18.75	5	7.81
40-49	6	9.38	2	3.13
50-59	1	1.56	1	1.56
Diagnoses	Male(n=48)	%	Female (n=16)	%
Schizophrenia	19	29.69	4	6.25
Bipolar Mood Disorder	6	9.38	7	10.94
Substance Induced Psychosis	20	31.25	0	0
Other (epilepsy, acute psychosis)	3	4.69	5	7.81

Results

Average APOM score per domain at each data collection point

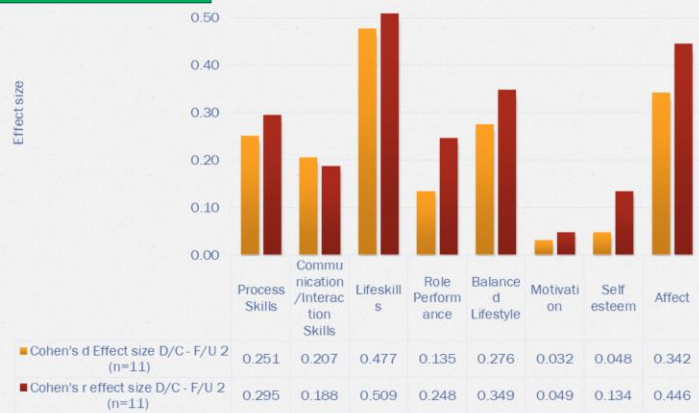


Effect sizes per domain from baseline to discharge - comparing APOM score, Cohen's d and Cohen's r



Effect sizes per domain from discharge to follow-up
2 - comparing APOM score, Cohen's d and Cohen's r

D/C TO FOLLOW UP



Discussion

- ◊ Sample: majority is substance use disorders followed by schizophrenia.
- ◊ Improvement noted across all APOM domains from baseline to discharge.
- ◊ Mean scores (APOM) baseline(incidental constructive) and discharge(constructive explorative).
- ◊ Effect sizes demonstrated improvement with large values on both Cohen's d and Cohen's r statistics during hospitalisation.
- ◊ Effect sizes after discharge yielded *insignificant* results due to small number of patients that were followed up.

Conclusion

- ◊ The overall outcomes of this study yielded positive results.
- ◊ Time consuming nature of ROM.
- ◊ Establishment of the effect of OT intervention on activity participation and generated evidence of change.
- ◊ The start of benchmarking for a rural hospital.
- ◊ Identification of areas needing improvement in the intervention programme.

VdTMoCA evidence – in summary



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In summary we can say that we have evidence that research in the VdTMoCA has been translated into utilisation in the clinical field. In instrumental utilisation we have guidelines but it is mainly on assessments. Conceptually we have evidence that the levels exist and Wendy shed light onto the concept of minimum and maximum effort and Lyndsay has started a study to ground the levels in children. In the persuasive utilisation we are doing rather well but in all these areas we need to continue to do research so that the utilisation can be effected on a continuous basis. Conferences like these is such a good platform where we can take stock where we are and what are most important issues to investigate further.

Thank you



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