

The Vona du Toit Model of Creative Ability and evidence-based practice

Results from routine outcome measurement studies

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Where is the evidence
of the effect of OT?



How will we find the
evidence?



ROUTINE
OUTCOME
MEASUREMENT



*“If you always do what
you always did, you
always get what you
always got”*



Routine outcome measurement

What is it?

- ☐ Track change after intervention:
baseline, interim, final assessments
- ☐ Platform to study the effectiveness of
services
- ☐ Reflect on current quality of
programmes



Advantages of ROM

- ☐ Evidence of change at your fingertips
- ☐ Determine effect of intervention –
calculate change and DESCRIBE
change
- ☐ Benchmarking the effectiveness of OT
practices



Challenges to ROM



- Cannot claim that it is due to your intervention
- Use an outcome measure valid for your setting and your population
- Takes time and sometimes expensive



Embedding ROM
in practice not a
one-step exercise



VdTMoCA



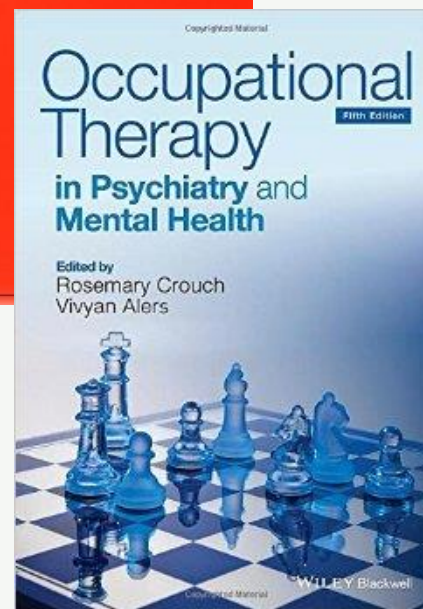
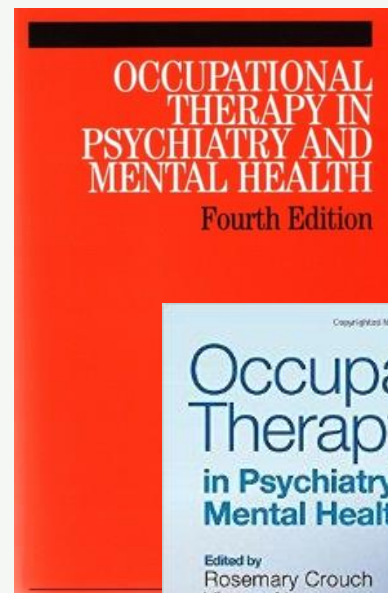
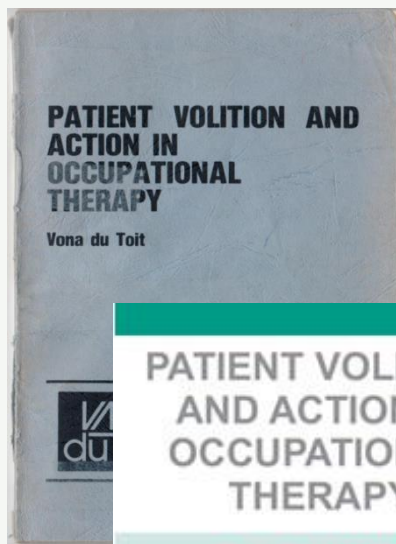
National OT Congress in Cape Town - 1970

- “The medical profession demands that any new clinical procedure be validated in terms of **clinical results**.
- An assessment of the value of a procedure is done according to the **negative or positive effects elicited in the client by the application of the procedure**”

(Patient Volition and Action in Occupational Therapy, 1980:5)



The VdTMoCA toolbox



Functional Level Outcomes Measure (FLOM)

Facility Name: _____

User Name: _____

Hospital Number: _____

Date: _____ Ward: _____ Unit: _____

DSM IV Diagnoses:	
Axis I	Psychiatric Diagnosis
Axis II	Personality and Intellect
Axis III	Physical
Axis IV	Stressors
Axis V	GAF Score

Mental Illness		Yes	No	Comments
Level 1-Tone	There is life and that is all i.e. defenseless, dependant, incapable			
	Obviously mentally ill/intellectually impaired			
	Cannot give account of self/cannot explain own feelings & actions			
Level 2 Self-differentiation	Range of emotions is very limited (Needs to fulfill basic needs like hunger)			
	Behaviour is considerably influenced by delusions or hallucinations/intellectual impairment/mental illness			
	Start to become aware of the mental illness			
Level 3-Intentional explorative action	Gives poor self account (cannot explain own feelings and actions)			
	It is difficult to understand the difference between the real world and delusions and hallucinations			
	Full range of emotions evident			
	High level of anxiety present in unknown situations			
Level 4 Norm directed action	Has low self esteem			
	Disorder not always evident			
	Able to give self account			
	Some mild symptoms are visible eg. Some depressive mood			
Level 5 - Norm compliance action	Emotional response is appropriate for the situation			
	Anxiety control is poor			
	User seems normal, illness not evident			
	Compliant with medication			
	Gives good account of self			
	Has intellectual and emotional insight into mental illness			



THE CREATIVE PARTICIPATION ASSESSMENT (CPA)

LEVELS OF CREATIVE PARTICIPATION



	Tone	Self-differentiation	Self-presentation	Passive participation	Imitative participation	Active participation	Competitive participation
Action	Undirected, unplanned	Incidentally constructive or destructive (1 - 2 step task)	Explorative (3 - 4 step task)	Product centered (5 - 7 step task)	Product centered (7 - 10 step task)	With originality - transcends norm/ expectations	Product centered
Volition	Egocentric to maintain existence	Egocentric to differentiate self from others	To present self, unsure	Robust. Directed to attainment of skill	Directed to product, a good product, acceptable behaviour	Directed to improvement of product procedures, etc	Directed to participation with others, to compare and evaluate self in relation to others
Handle tools and materials	Not evident	Only simple everyday tools (e.g. spoon)	Basic tools for activity participation - poor handling	Appropriate, lack of skill	Good	With initiative	Very good
Relate to people	No awareness	Fleeting awareness	Identification selection, makes contact, tries to communicate, superficial	Communicate	Communicate / interact	Close interpersonal relationships, intimacy, can assist others, adapt, allowances, consideration	Adapt, allowances, consideration, close interpersonal relationships, intimacy, can assist others.
Handle situations	No awareness of different situations	No awareness or ability	Stereotypical handling, makes effort, but unsure or timid	Follower, variety of situations, participates in a passive way	Manages a variety of situations, appropriate behaviour	Can evaluate, adapt, adjust according to need, can deal with problems	Can evaluate, adapt, adjust according to need, can deal with problems
Task concept	No task concept, basic concepts	No task concept, basic and elementary concepts	Partial task concept, compound concepts	Total task concept, extended compound (abstract, elementary) concepts	Comprehensive task concept, integrated abstract concepts	Abstract reasoning	Abstract reasoning
Product	None	None	Simple - familiar activities, poor quality product	Product fair quality (aware of expectations)	Product good quality (according to expectations)	Quality - can adapt, modify, exceed expectations, evaluate, upgrade	Quality - can adapt, modify, exceed expectations, evaluate, upgrade
Assistance or supervision needed	Total assistance and supervision (24 hour)	Physical assistance and constant supervision	Constant supervision needed for task completion	Regular supervision	Guidance, supervision, regular or new activities, occasional free	Guidance, formal training (own responsibility), help to supervise others	Guidance, formal training (own responsibility), help to supervise others



APOM

ACTIVITY PARTICIPATION OUTCOME MEASURE

USER MANUAL

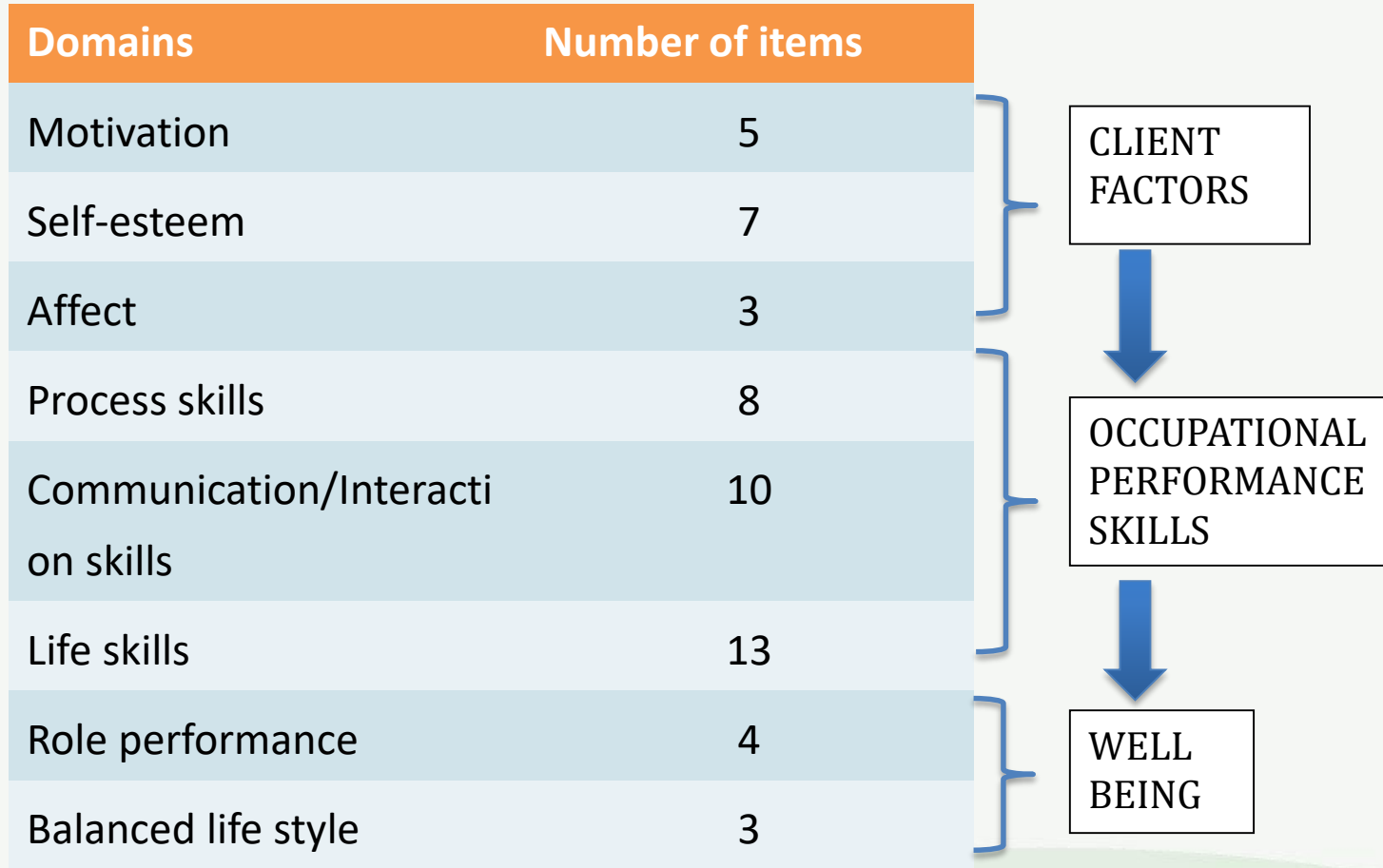
THE ACTIVITY PARTICIPATION OUTCOME
MEASURE - APOM

A TOOL FOR OCCUPATIONAL THERAPY
CLINICIANS IN MENTAL HEALTH PRACTICES



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OT contribution towards healthcare



Item descriptions

Each of the 53 items have been described in levels of creative ability

	Tone	Self differentiation	Self presentation	Passive participation	Imitative participation	Active participation
Task Concept	No task concept.	No task concept but able to follow an instruction or command.	Beginning to understand the task and could identify with task. Will begin with a task but not able to plan logical order of the task independently. Task concept unconsolidated.	Needs assistance in beginning the task, deciding when to do next step and when task is complete. Better performance with familiar tasks - might be able to complete familiar tasks. Task concept almost consolidated, avoids evaluation of the task.	Able to begin, order steps logically, continue and complete steps without hesitation. Shows satisfaction and evaluate the task. Task concept is consistent and consolidated.	Shows initiative and originality in task execution, able to improve on performance due to critical evaluation of a task.
Organizing space and objects	No ability to organize space and objects for task performance.	Actions in task performance aimless, incidental and sometimes destructive, no ability to organize space and objects.	Willing to explore with materials and tools but no intention to organize the workspace. Area to be structured by therapist. No attempt to restore workspace.	Beginning to organize own work space and objects for familiar tasks, needs assistance with unfamiliar tasks. Will restore if asked to.	Able to organize space and objects, follows/imitates the procedure as set out by others. Restores workspace without reminding.	Able to organize space and objects in own original manner. Willing to assist others. Always restores workspace and remind others to do so.

Scoring based on VdTMoCA

Tone			Self-differentiation			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

Passive participation			Imitative participation			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

Web-based format

Logon to www.apomtherapist.com.

The screenshot shows the APOM web interface. At the top, the title 'APOM' is displayed in large letters, with 'Activity Participation Outcome Measure' written below it. The page is divided into two main sections: a left sidebar for user actions and a main content area for information.

Login Section:

- Header: Login...
- E-Mail Address: daleen.castelijns@wits.ac.za
- Password: [masked with dots]
- Buttons: Login (green), Forgot your password? (blue link)

Register Section:

- Header: Register...
- Text: Don't have an account?
- Text: Click on the button below to register.
- Button: Register (green)

Main Content Area:

- Activity Participation Outcomes Measure – APOM**
- Description:** The Activity Participation Outcome Measure - APOM is an outcome measure specifically designed for occupational therapists in mental health settings. It covers eight domains of activity participation namely: Process skills (cognitive skills), Communication and interaction skills, Lifeskills, Balanced lifestyle, Role performance, Motivation, Self-esteem and Affect.
- Rating Scale:** The rating scale of the APOM is based on the levels of Creative Ability as described by Vona du Toit.
- Usage:** Clinicians who use the APOM will be able to produce evidence of the outcomes of their services, track the changes in individual patients, establish the effect of specific programmes, determine trends in activity participation in specific groups (e.g. schizophrenia, personality disorders etc) and benchmark against other services who are also using the APOM.
- Implementation:** It is a web-based application and clinicians will undergo training before implementing the APOM.
- Welcome:** You are welcome to register if you are interested in using the APOM.

Footer:

- APOM Support • E-mail: support@apomtherapist.co.za • Tel: +27 (0) 12 665 5440
- APOM is brought to you by Marion Service Solutions (Pty) Ltd, a proud Microsoft Gold Certified Partner www.marion.co.za



Excel-based format

B4		fx		='Summary all'!Q2			
	A	B	C	D	E	F	G
1	Peter Smith						
2							
3		Baseline	Interim 1	Interim 2	Interim 3	Final	Process skills
4	Process skills	20/03/2015	1900/01/00	1900/01/00	1900/01/00	1900/01/00	Tone (1, 2, 3)
5	Attention:						Unaware of the task.
6	Pace:						Not prepared to engaged in a task.
	Knowledge - tools &						No evidence of knowledge of materials, tools or tasks.
Summary all							
Outcomes PT2							
Baseline report PT2							
Interim 1 report PT2							
Interim 2 report PT2							
If							
Ready							



Data that are generated

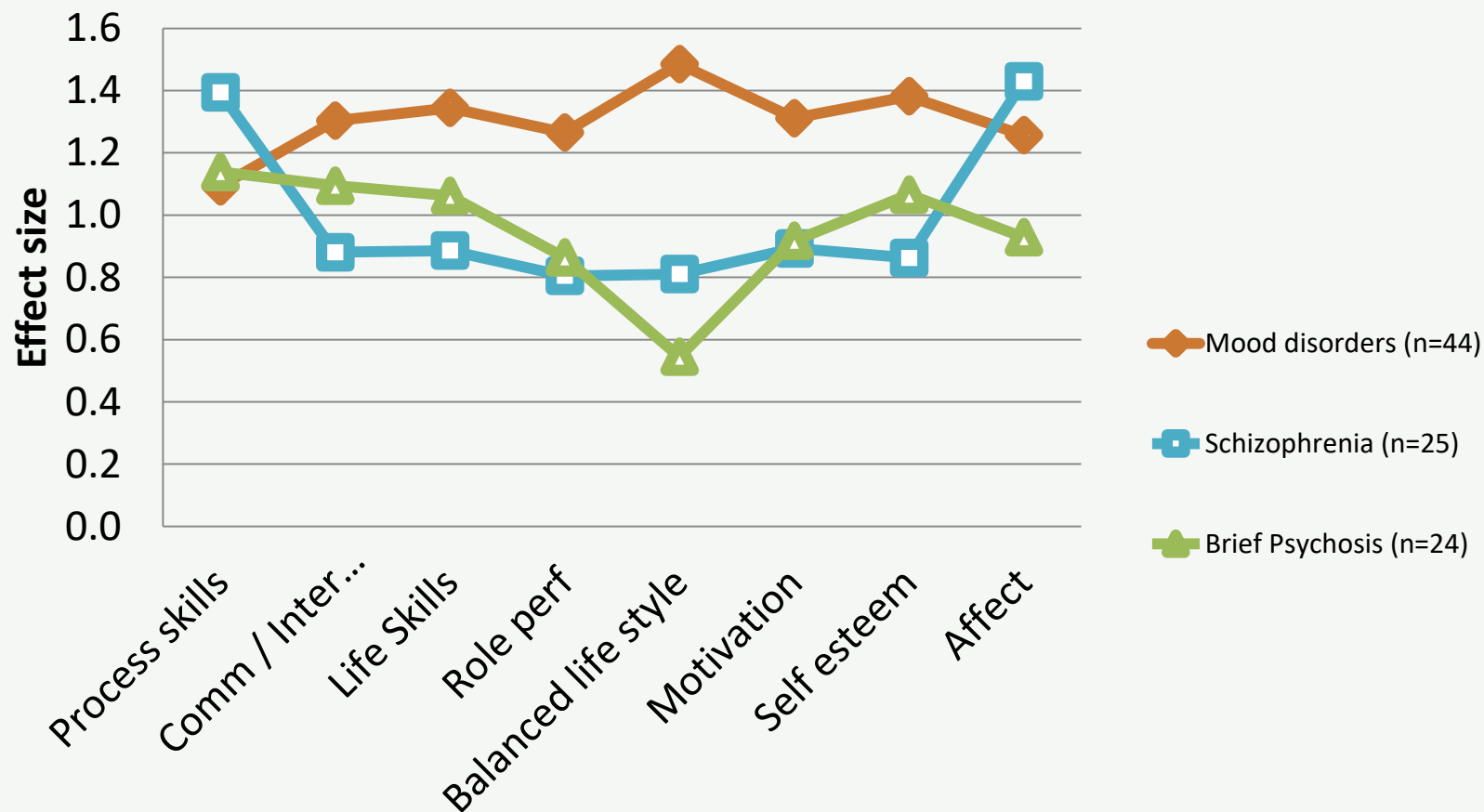
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	ID	Patie	Gender	Age	1st Proc	1st Cor	1st Life	1st Role	1st Bala	1st Mot	1st Self	1st Affe	2nd Pro	2nd Cor	2nd Life	2nd Rol	2nd Bala	2nd Mo	2nd Self	2nd Affect
2		F		33	10	12	11	11	10	10	10	11	14	17	14	15	15	14	14	14
3		F		52	16	17	16	15	15	14	13	15	18	18	18	18	17	18	18	18
4		F		30	14	13	13	13	11	13	12	12	16	16	14	14	13	15	14	14
5		M		57	12	12	10	9	10	10	11	9	14	13	13	12	11	11	11	9
6		M		40	15	15	13	12	11	13	13	11	16	16	15	15	13	15	14	13
7		M		40	15	15	13	12	11	13	13	11	16	16	15	15	13	15	14	13
8		F		45	12	12	13	12	11	13	13	11	16	17	16	15	15	16	15	13
9		F		32	14	16	16	13	13	15	14	11	16	18	18	17	16	17	17	17
10		M		29	17	17	16	14	14	15	15	16	18	18	17	17	17	18	17	17
11		M		47	17	18	15	14	12	13	15	15	17	18	17	17	16	17	17	17
12		M		21	8	7	7	7	7	7	7	7	9	8	7	7	8	8	7	7
13		M		22	8	8	7	8	7	8	7	7	9	9	8	8	8	9	8	7
14		M		37	9	8	9	9	10	9	10	8	10	9	9	10	10	10	10	8
15		M		30	11	11	11	11	10	10	10	9	9	9	9	10	9	9	8	9
16		M		27	10	10	9	10	10	10	10	9	15	16	15	15	16	16	15	13
17		M		44	11	12	12	11	10	9	11	9	9	10	9	10	7	7	6	6
18		M		14	11	11	9	8	9	10	10	10	12	14	11	11	12	12	12	11
19		M		49	11	13	11	10	7	7	7	7	11	13	11	10	10	10	11	11
20		F		25	10	11	9	10	9	9	9	10	10	11	10	11	11	10	10	11
21		M		20	10	12	11	11	11	9	9	10	11	13	11	12	12	11	10	11
22		M		17	10	12	10	11	10	11	11	12	13	14	12	14	13	13	12	14
23		F		17	10	12	10	12	9	11	11	11	14	15	13	15	13	15	15	15
24		F		37	9	10	8	9	10	9	9	9	10	10	9	9	10	10	10	10
25		M		40	9	10	9	9	8	8	9	9	10	10	9	9	9	10	10	10
26		M		45	7	7	6	6	6	7	6	7	10	9	8	8	9	11	10	10
27		M		33	8	7	5	4	6	8	7	7	8	7	5	4	6	8	7	7
28		M		55	9	9	8	8	8	8	7	8	10	10	8	8	8	9	8	8
29		M		71	7	8	8	5	7	7	6	9	8	8	8	5	7	7	6	9
30		F		41	10	10	9	10	9	9	9	9	10	10	9	10	10	10	10	9

What can we do with the data?

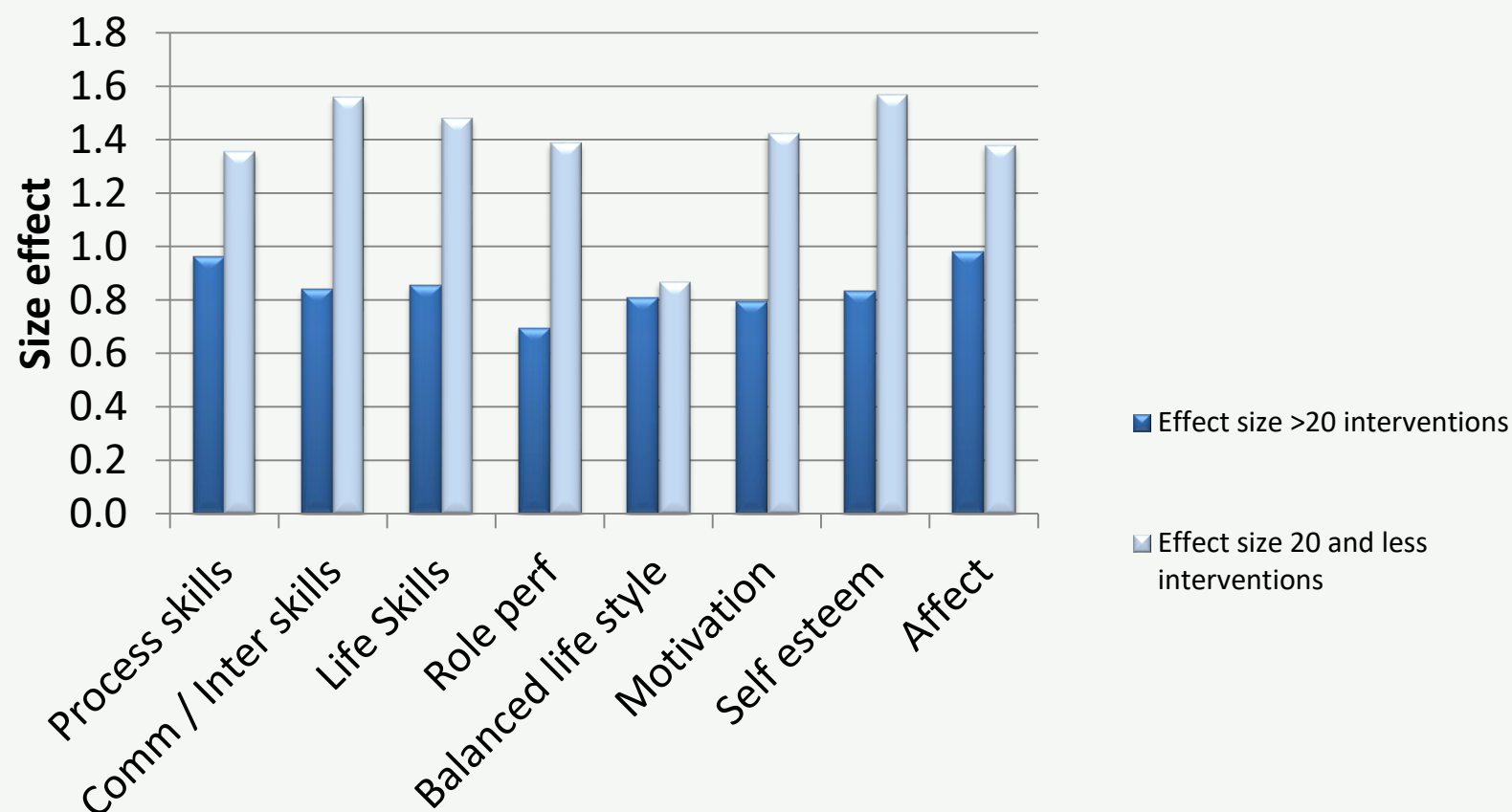
- Effect size most often used – Cohen's D
 - Calculate mean change for the group
- Use a t-test or any statistical analysis to calculate difference between baseline and final score Calculate differences between groups
- Correlations between baseline and final and other variables



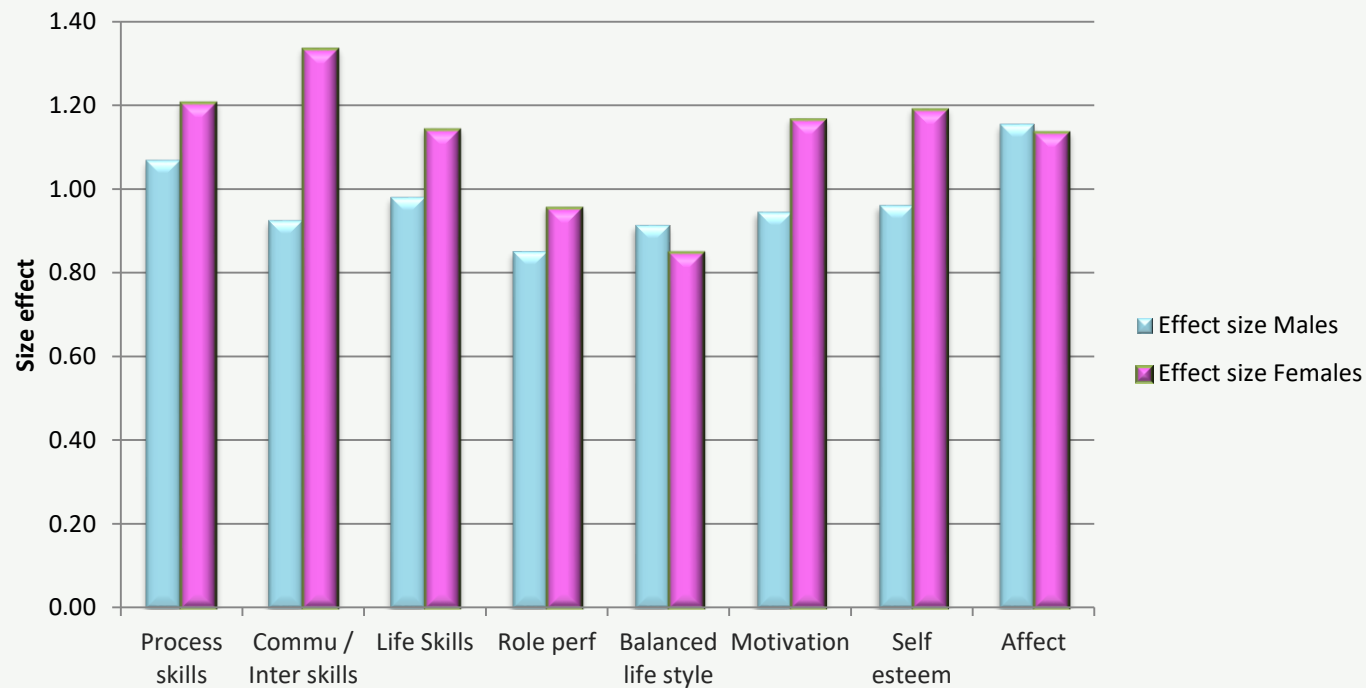
Comparison of activity participation in 3 groups – UK hospitals



Comparing less and more than 20 interventions – UK hospitals

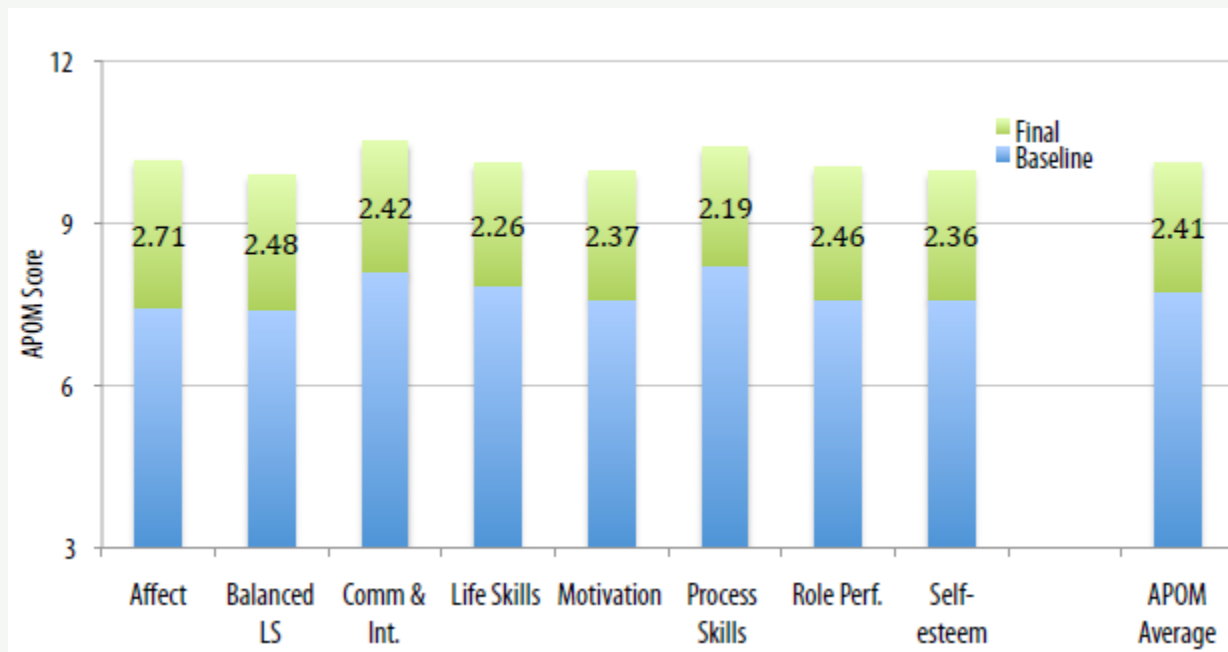


Size effect Females vs Males – UK hospitals



Mental disorders

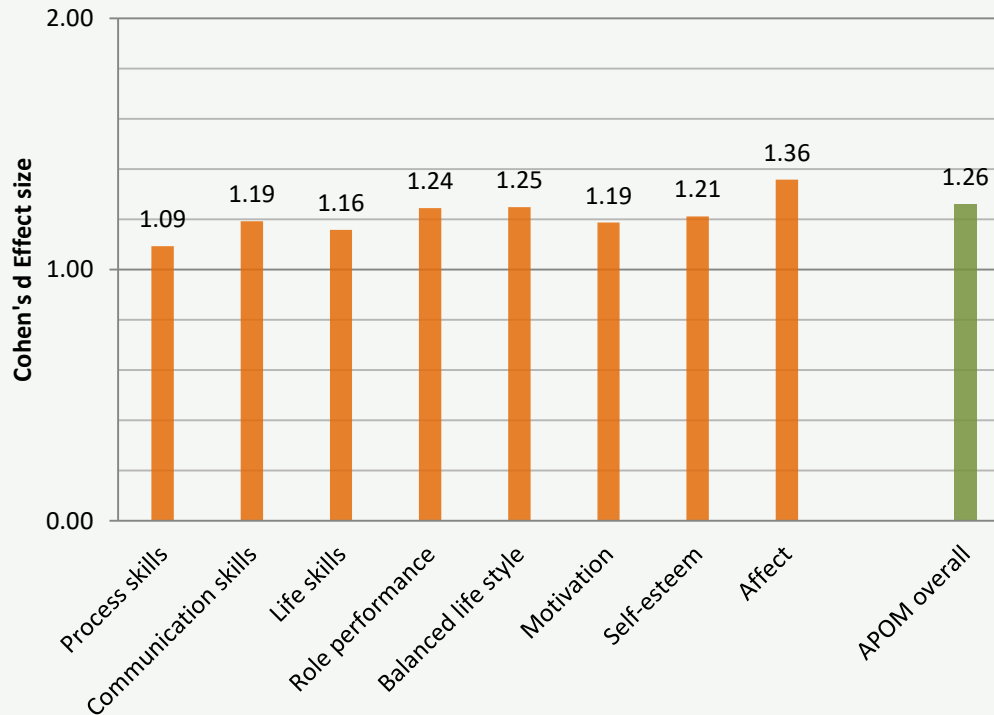
Mean difference: baseline and final



Carter M. Analysis of routine outcome measurement data in Mental Health Occupational . Masters dissertation, Northampton University, 2013.

Mental disorders

Effect size (n=194)

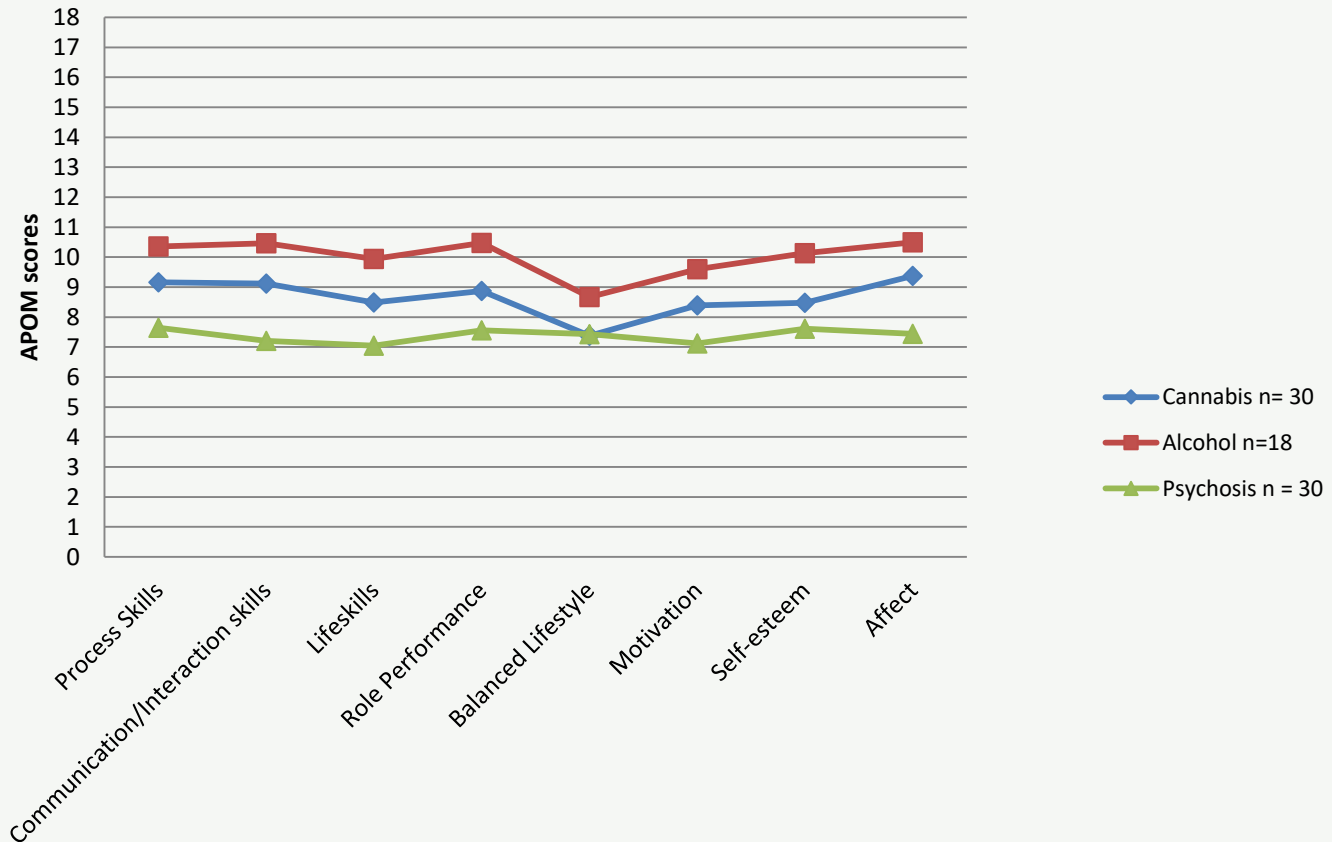


Carter M. Analysis of routine outcome measurement data in Mental Health Occupational . Masters dissertation, Northampton University, 2013.



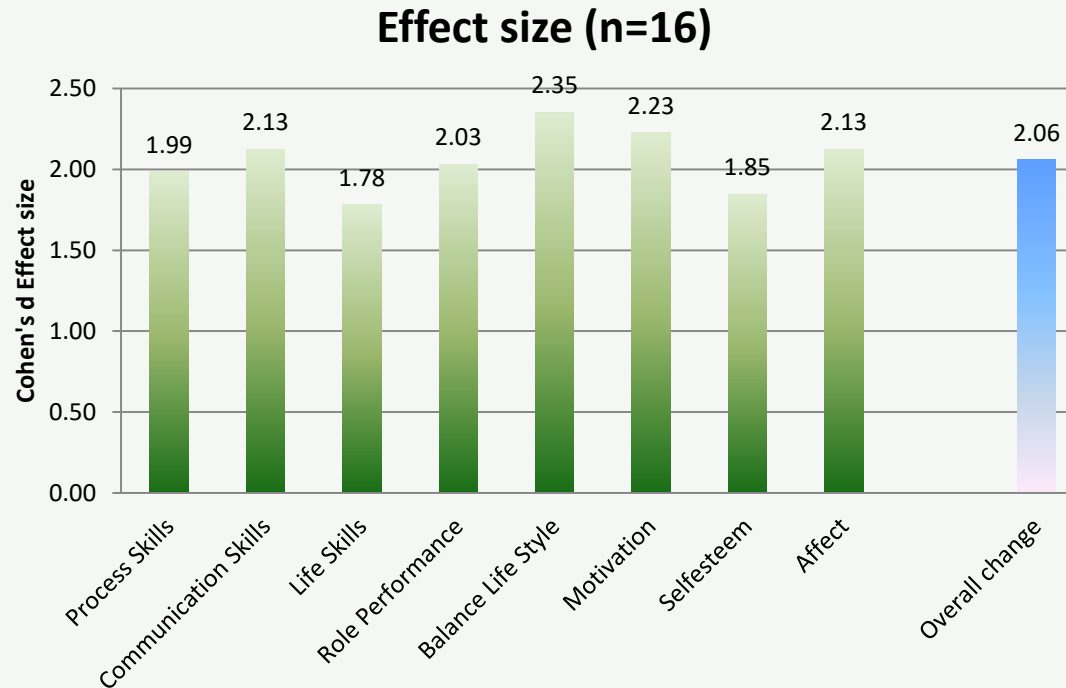
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Comparing activity participation of alcohol and cannabis abuse



K Wolhuter. The impact of adolescence initiated alcohol and cannabis abuse/dependence on the level of activity participation in adult males suffering from a psychotic disorder. MSc WITS 2013

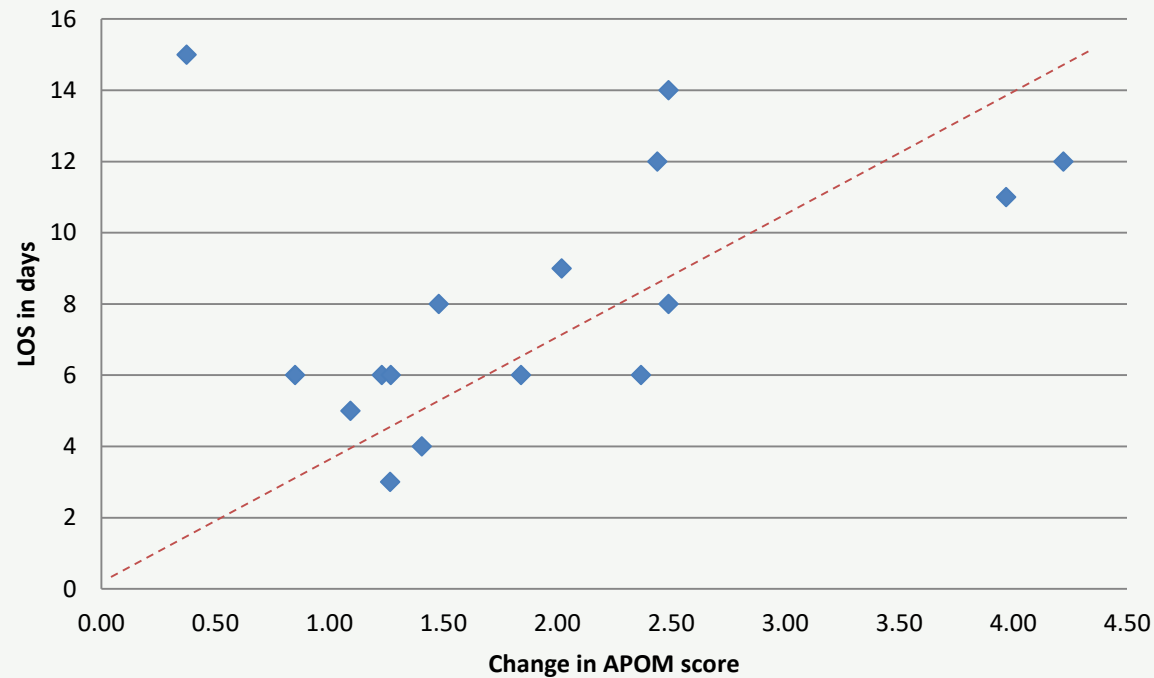
Adolescent population



S Pillay. Responsiveness to change and concurrent validity of the Activity Participation Outcome Measure (APOM) in adolescent mental health care users.
MSc WITS, in progress

Adolescent population

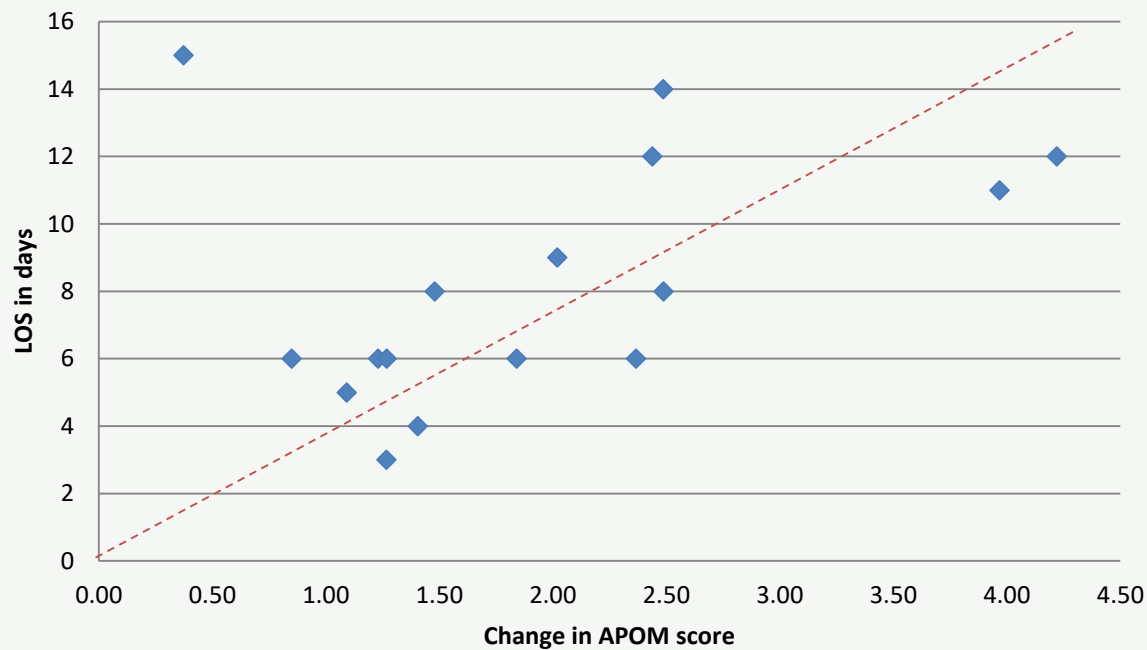
Correlation between LOS and change in APOM score (n=16)



$r = 0.385$

Adolescent population

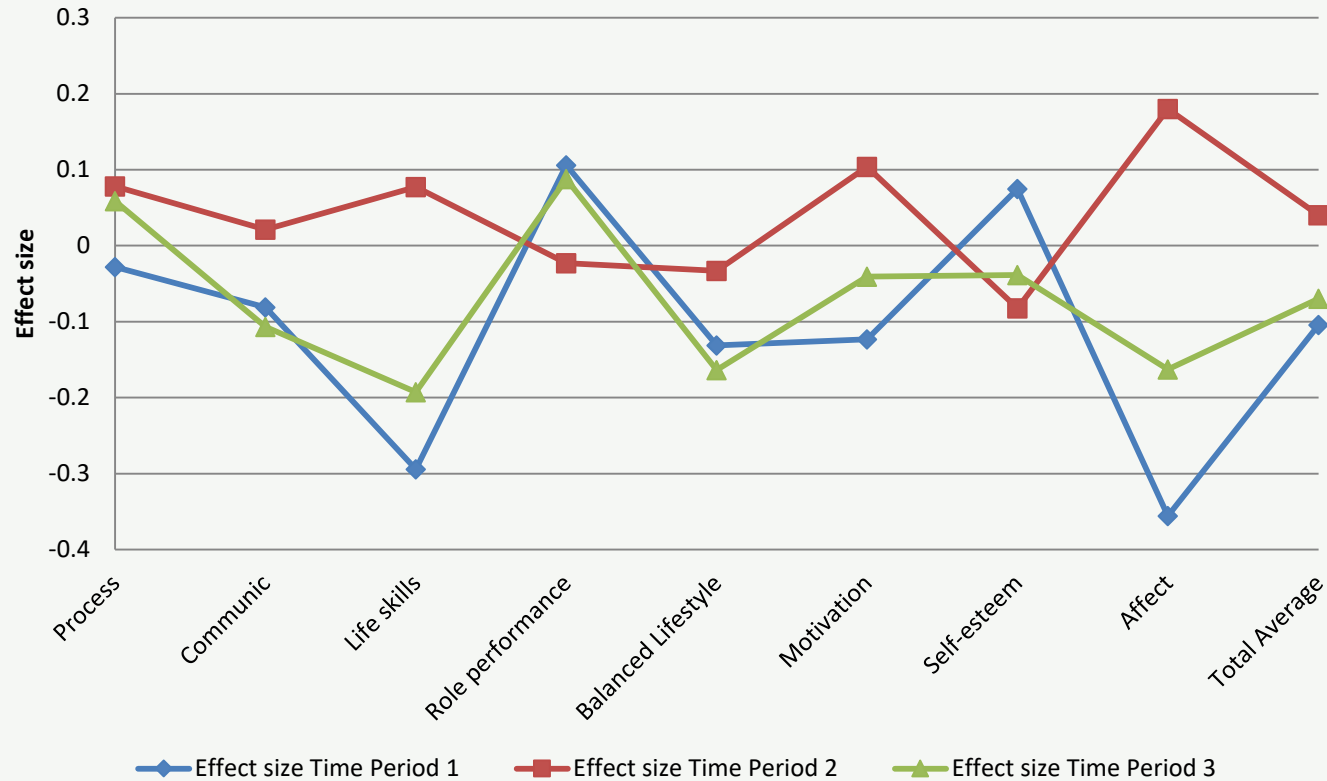
Correlation between LOS and change in APOM score (n=15)



$r = 0.732$

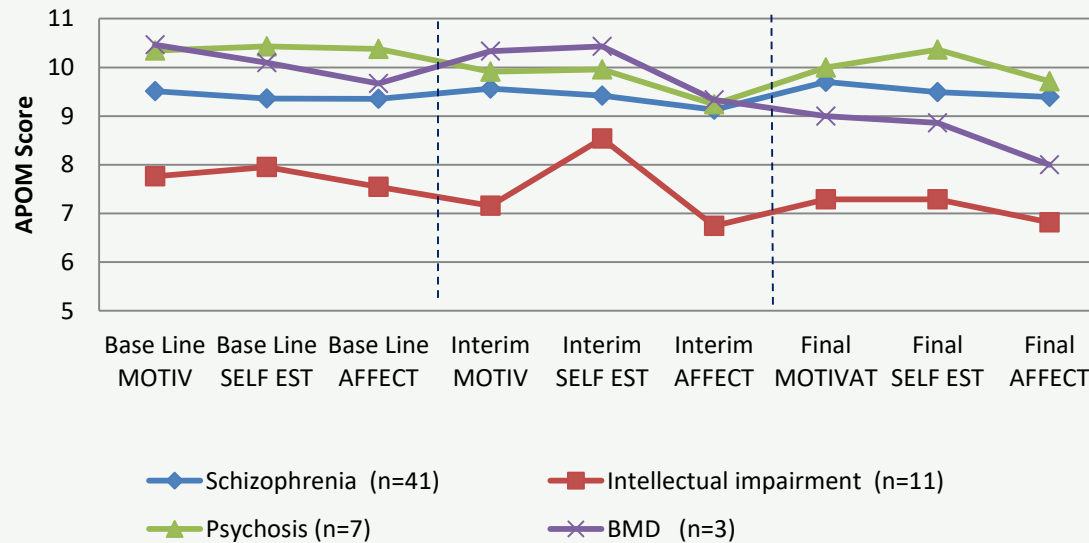
Forensic population

Change between 3 Time Periods



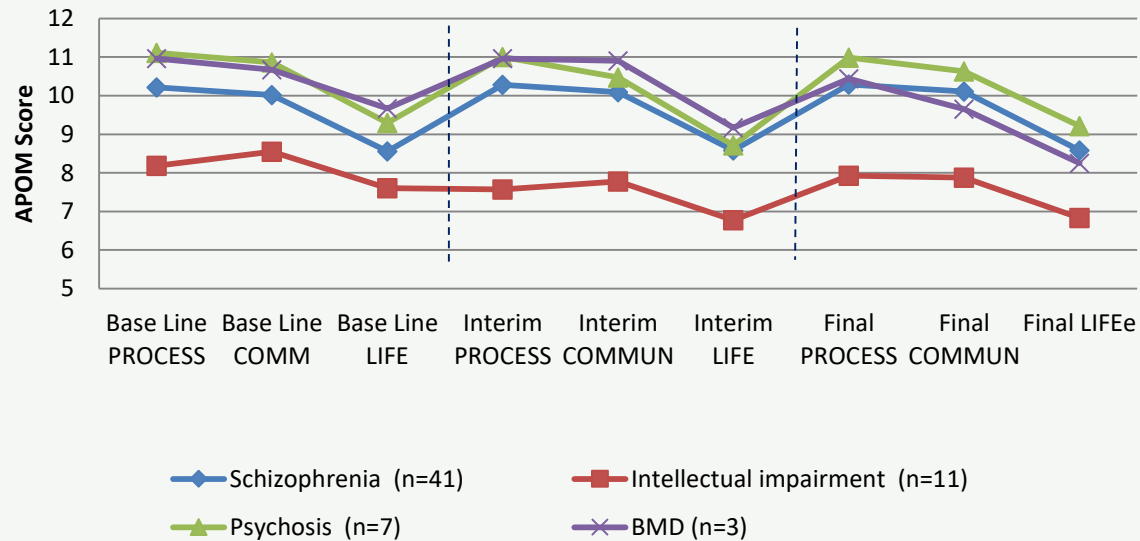
Forensic population

Change in Average APOM Score: Client factors



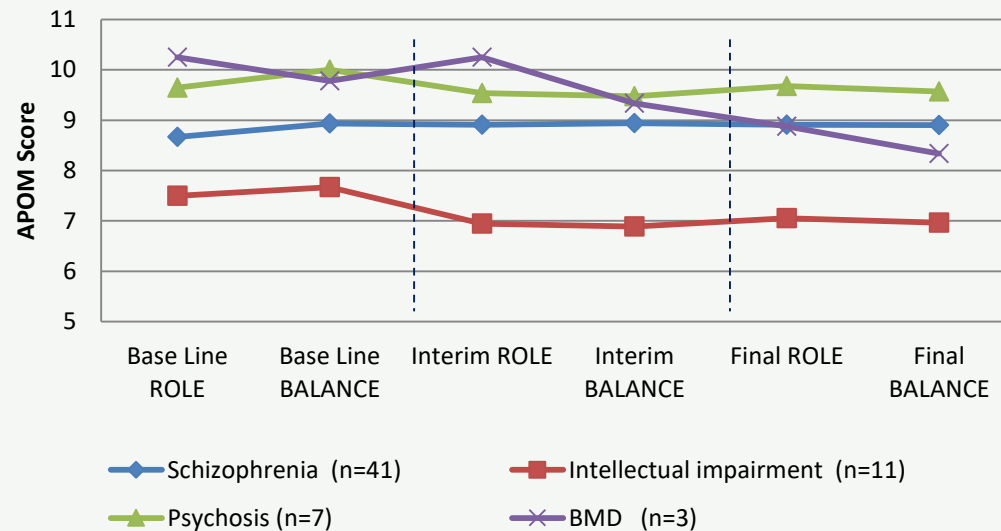
Forensic population

Change in Average APOM Score: Performance skills



Forensic population

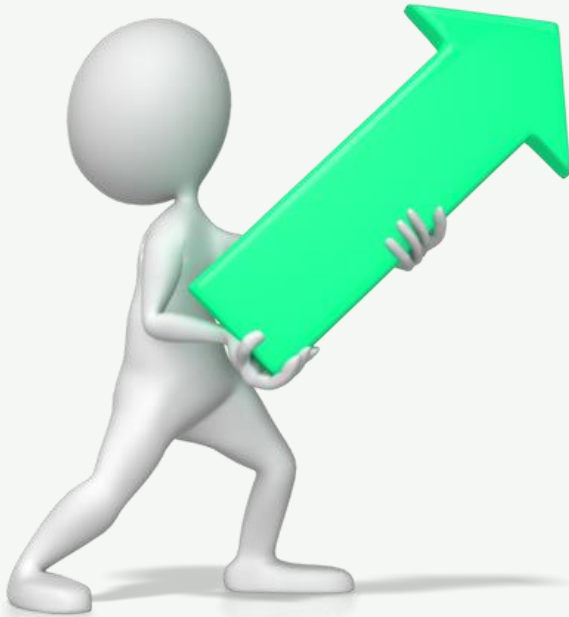
Change in average APOM score: Well-being



Discussion

- Most of our patients admitted on a level of self-presentation
- Effect size is higher than 0.8 (large effect size) except for forensic setting
- LOS
 - Adolescent population: longer stay = improved scores
 - Institutionalisation needs to be monitored

Closure



- Challenges and barriers
- “....get what you always got”
- APOM on example of an outcome measure to show effect of services
- Have evidence of service delivery at hand
- Check trends and improve quality of services



