

Using APOM to measure performance improvement in an inpatient dementia re-enablement centre

Joanne Cocken

Senior Occupational Therapist
SEPT

Aims

- **Overview of prevalence of Dementia in UK**
- **Introduce dementia re-enablement project**
- **Discuss how APOM has been used to measure performance improvement**
- **Discuss results and limitations**
- **Questions**

Prevalence of Dementia in the UK

- One in 3 people over the age of 65 will be diagnosed with dementia.
- Currently 800,000 people are diagnosed with dementia in the UK at a cost of £23,Billion per year – a cost thought to be higher than cancer, stroke or heart disease
- By 2040 it is estimated that people diagnosed with dementia will double and the cost will treble.
- Early diagnosis can be beneficial in enabling people to have the skills to cope with dementia however currently diagnosis rate in England is 45% - lower than Scotland and Northern Ireland.

Reasoning for Dementia re-enablement project

- 60% of people with dementia are admitted to acute hospitals from their own homes.
- Patients with dementia in a general hospital are at higher risk of deteriorating physically and mental compared to those without.
- A study published in British Journal Psychiatry looked at dementia in the acute hospital and found 41% of those studied were admitted for pneumonia and urinary tract infection and these patients had markedly higher mortality rate.

Table showing top 5 reasons for general hospital admittance

Reason for admission	Proportion of total number of patients with dementia
Following a fall	14%
Broken/fractured hip or hip replacement	12%
Urine infection (including urinary tract infection)	9%
Chest infection	7%
Stroke/minor stroke	7%

About the Service

- Client group = Over 65 with diagnosis/ suspected Dementia.
- Aim to avoid admissions to general hospital for minor physical ailments such as falls without severe injury and urinary tract infection.
- Post-surgical rehabilitation
- Provide Period of rehabilitation over 6-8 weeks with the aim of enabling people to return to their own homes.
- Registered General and mental Health Nurses present on every shift
- Access to Physiotherapy, Occupational Therapy and Social Work.
- Reviewed by Consultant Geriatrician, Consultant Psychiatrist and Pharmacy.
- Cognitive Assessments such as ACE III carried out
- Physical and cognitive interventions

Inclusion Criteria

- Patients with a diagnosis or suspected dementia and are eligible for adult services i.e. over 18 years of age
- Requires 2 or more of the following
 - Medical care – i.e. Medically stable or requiring of only minor medical intervention e.g. intravenous fluid rehydration, UTI treatment
- Nursing Care
- Therapy care (OT/PT)
- Social Care
- Be sufficiently alert or have recent history of ability to follow directions and engage in therapeutic programmes
- Be able to perform activities of daily living with supervision and assistance of staff, which may include dressing, eating, etc.
- Have on-going acute behavioural disturbance in context of their treated physical illness
- Does the patient have good rehabilitation potential
- Predicted LOS 8 weeks or less
- Able to swallow
- South Essex resident or registered with a South Essex GP

Exclusion Criteria

- Requires certain intravenous therapy
- Have recently had an operation that has “significantly” altered their functioning
- Patient is not medically fit
- Patient is bedridden
- Severe behavioural disturbance warranting sectioning under the Mental Health Act 1983
- Patient does not have a diagnosis or suspected diagnosis of dementia and is for instance severely depressed, severe psychosis.
- Patient (or carers) unwilling to go into the community
- Patient’s carer arrangements have broken down, i.e. the unit does not provide respite.
- Patient requires complex medical care
- Patient requires cardiac monitoring
- Patient requires significant physical health investigations
- Patient awaiting significant home adaptation, CHC assessment or funding
- Patient only awaiting provision of Social Care or respite care
- Patient requires end of life care

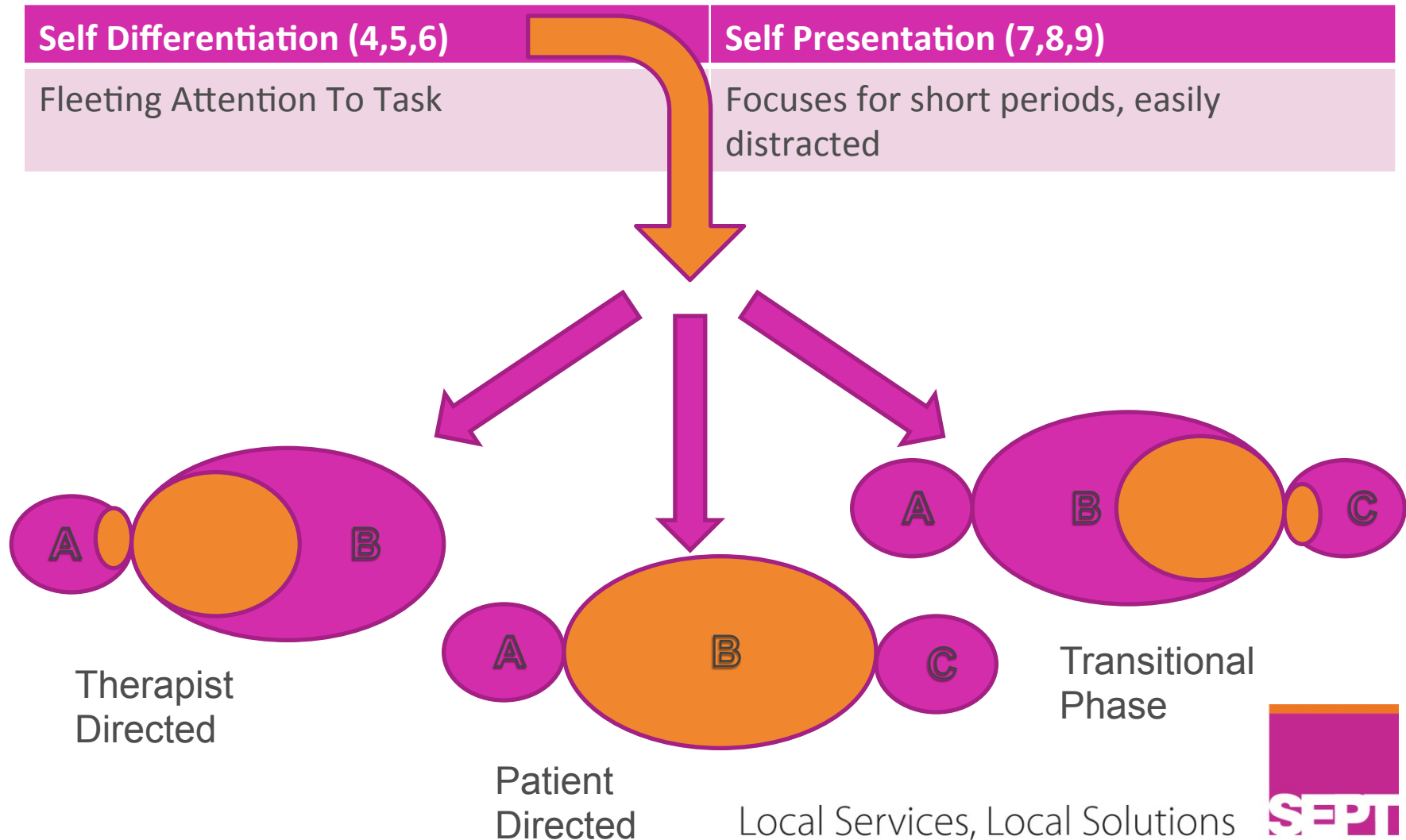
Using Activity Participation Outcome Measure (APOM) to measure improvement in participation in clients with mild to moderate Dementia

- APOM was designed by Casteleijn (2010) for use by Occupational Therapists with clients with Mental Health Problems
- The measure looks at 8 areas participation; Process Skills, Communication Skills, Life Skills, Role Performance, Balanced Lifestyle, Motivation, Self-Esteem, Affect.
- Clients are given an outcome level within the VdT Model of Creative Ability at the beginning and end of their rehabilitation to measure whether there has been an improvement.

Example of APOM Tool

Baseline	Final	Process skills					
1900/01/00	1900/01/00	Tone (1, 2, 3)	Self differentiation (4, 5, 6)	Self presentation (7, 8, 9)	Passive participation (10, 11, 12)	Imitative participation (13, 14, 15)	Active participation (16, 17, 18)
		Unaware of the task.	Fleeting attention to the task.	Focuses attention for short periods, easily distracted.	Focuses attention for duration of task performance but quality of attention sometimes poor, sometimes distracted.	Focuses attention for duration of task performance with good quality, not easily distracted.	Able to attend to task completely, quality of attention extremely good.
		Not prepared to engaged in a task.	No talk of pace or rate of work as actions are destructive or incidental.	Inconsistent pace or task execution, slow or poor rate and poor accuracy.	Pace starts to be consistent but still slow, accuracy sometimes poor.	Consistent pace, good rate of work according to the norm, good accuracy.	Consistent pace, good rate of work, sometimes exceeding the norm without risking accuracy.
		No attempt to select appropriate tools and materials for the task.	No attempt to select appropriate tools and materials for the task.	Poor selection and impulsive use of appropriate tools and materials for the task.	Selects appropriate and necessary tools and materials for the task if task is familiar and structured.	Selects appropriate and necessary tools and materials for the task, even unfamiliar tasks.	Selects appropriate and necessary tools and materials for familiar and unfamiliar the tasks.
		No evidence of knowledge of materials or tasks. Concepts are disrupted.	Minimal knowledge of materials and tasks. Identifies elementary concepts e.g body, colour and numbers. Knows functions and characteristics of elementary concepts.	Basic knowledge of intrinsic properties of materials. Identifies elementary and combined concepts.	More developed knowledge of materials and tasks. Identifies combined concepts.	Sufficient knowledge of materials and tasks, knows where to find additional information if he does not know. Complex and abstract concepts are more extensive.	Good knowledge, will seek out interesting facts or more advanced information. Complex and abstract concepts are extended and well developed.
		No handling of materials or tools.	Poor or inappropriate handling of material and tools. Poor maneuvering of objects held in the hand.	Appropriate handling but poor maneuvering of tools. Uses tools and materials according to their intended purposes.	Skill starting to improve and handling of tools is improving but yet not according to the norm. Uses tools and materials according to their intended purposes.	Good skills and handling of tools, comply with the norm. Uses tools and materials according to their intended purposes.	Good skills and handling of tools, is able to learn new skills, tool handling is swiftly. Adapts tools or materials for better performance.
		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.
		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.
		No engagement in tasks and therefore unable to anticipate or correct for errors.	Engagement in tasks incidental or destructive and no ability to anticipate or correct for errors.	Engage in tasks to explore, needs prompting to anticipate or correct for errors but no learning from the consequences of errors.	Anticipated one or two apparent, simple errors and able to correct these errors. Beginning to learn from the consequences of errors.	Anticipated a number of apparent, complicated errors and some complex errors and are able to correct these errors. Learns from the consequences of errors.	Anticipate and correct for errors to ensure good quality end product. Learns from errors and will come up with original solutions.

How APOM is used to determine level of creative ability



Using Activity Participation Outcome Measure (APOM) to measure improvement in participation in clients with mild to moderate Dementia

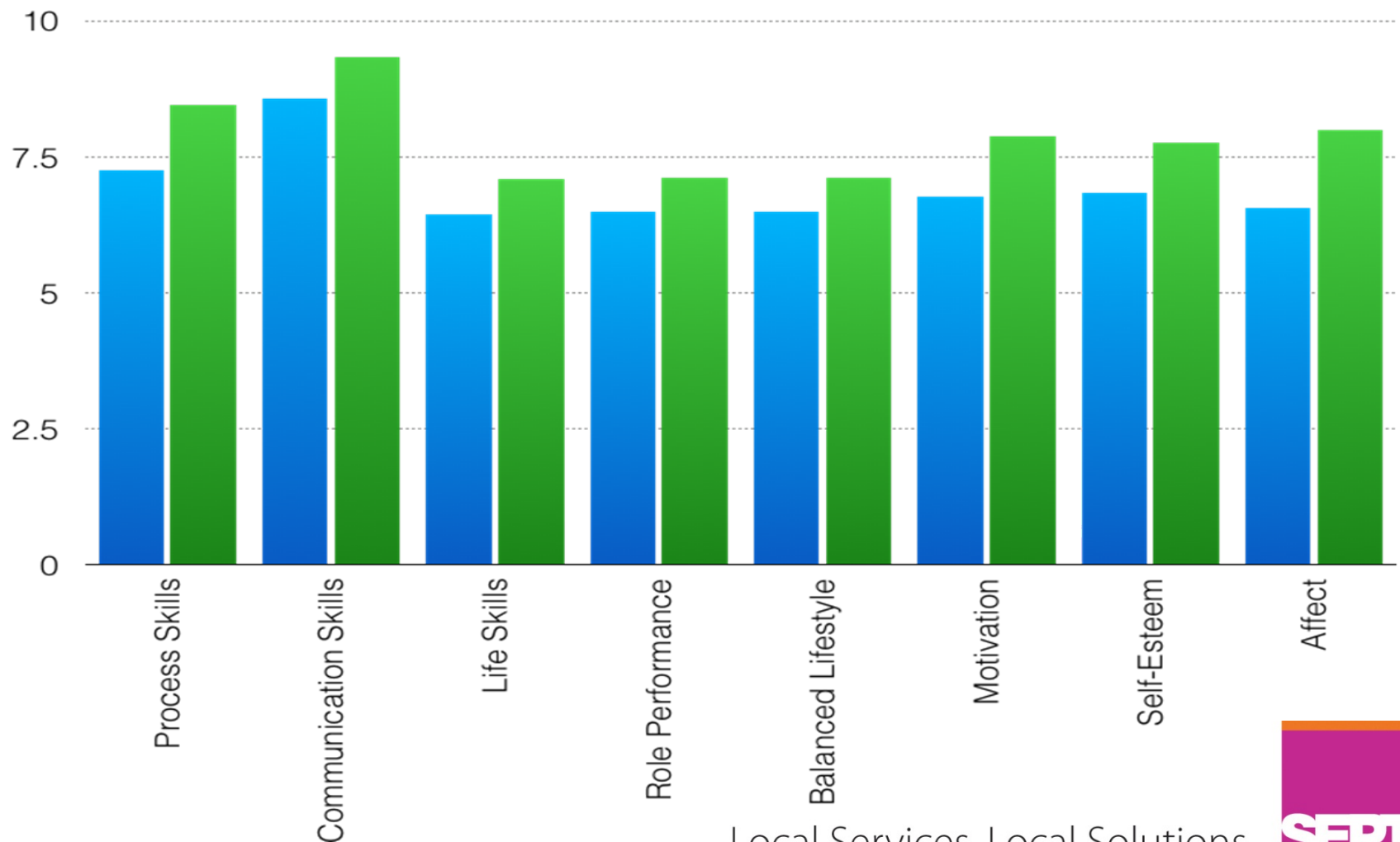
- Initial Assessment carried out including 1:1 with client, speaking with family, general observations on unit, functional assessments
- Convenience Sample of 25 clients
- APOM used on clients who partook in 3 sessions of Occupational Therapy or more throughout their inpatient stay; Group or Individual
- Baseline report created before intervention carried out and final report created upon discharge
- Only clients who returned to their original place of residence included in sample e.g. Change of accommodation to increased care setting not included.

Example of Activities

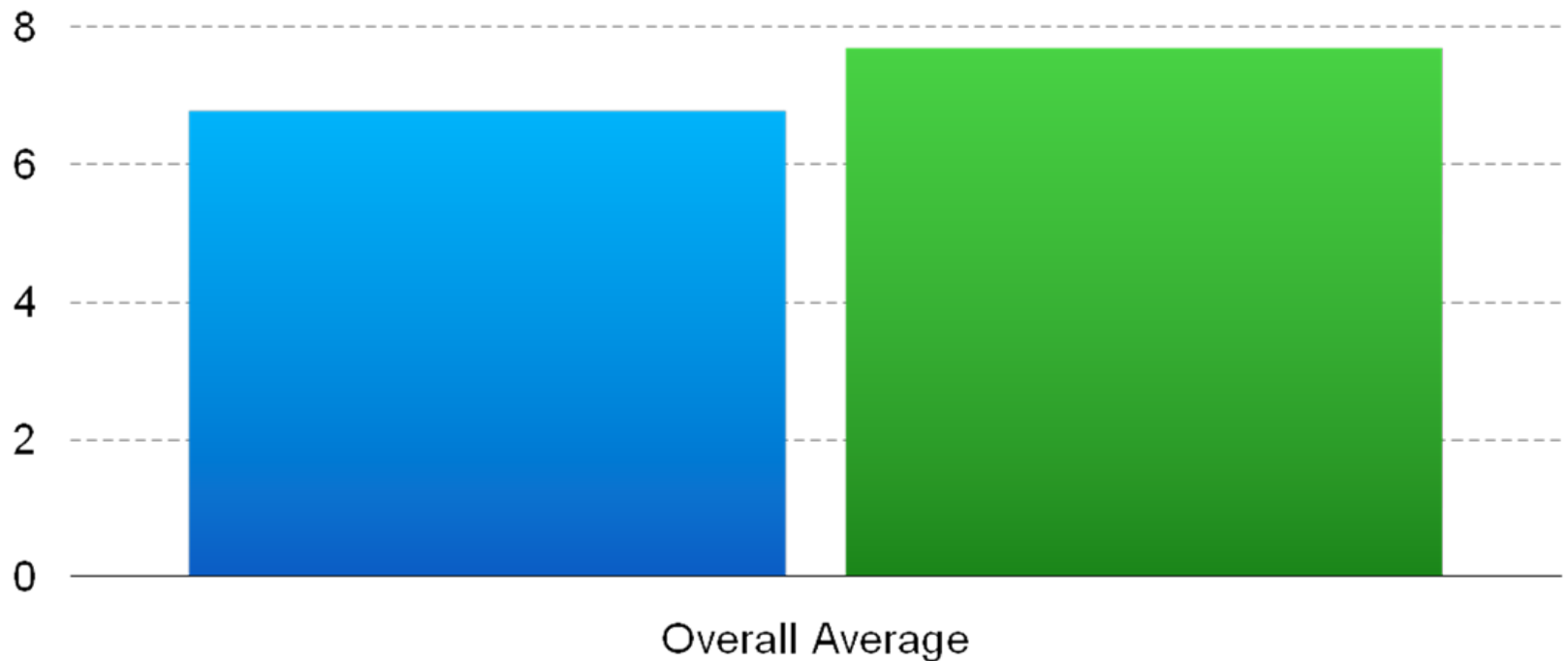
- Sensory Stimulation/ relaxation
- Reminiscence
- Sensory Baking
- Breakfast Group
- Arts and Crafts
- Listening to/ playing music
- Self Care/ Feeling Good
- Discussion/ Conversation
- Home Visits



Graph to show results of APOM when carried out on 25 older adults with dementia at beginning and end of rehabilitation period.



Graph to show overall average improvement in participation in sample of 25 older adults with dementia in rehabilitation setting



Results

- Results showed that using the APOM, on average there was improvement in all areas of participation
- Although initial findings were thought to show clients progressed through phases of each level however on average through a sample of 25 clients progression was between levels
- On average results show clients progressed through from Self-Differentiation (Transitional) to Self –Presentation (Patient Directed)
- Clients experienced the largest improvement in the areas of motivation, affect and process skills; This could be because of the 'Just Right Challenge' in terms of activities, environment conducive to rehabilitation, peer motivation, social stimulation, repetition of activity

Limitations

- Results are all subjective and transcribed into quantifiable data; however only one therapist carrying out all outcome measures increases reliability
- Client population (Older adults with dementia) often means other physical co-morbidities impact on the clients ability to participate in a task irrespective of motivation which the model does not recognise. E.g/Life Skills – ‘Person is reliant on others for personal hygiene’ often through physical dysfunction rather than impaired motivation.
- This particular data cannot be used to measure effectiveness solely of Occupational Therapy in this setting due to other rehabilitation being carried out e.g. Physiotherapy

Conclusion

- Ever growing need to create innovative ways of caring for people with Dementia as the prevalence grows.
- APOM as an outcome measure was effective in showing the progress through the levels and phases of the Model of Creative Ability within client group of older adults with mild/ moderate dementia.
- Some limitations in terms of the APOM and this client group are that doesn't reflect physical co-morbidity and is subjective.
- Further study could be done to formalise this piece of work and build on the work of Casteleijn to validate the use of APOM in Mental Health as well as furthering the validation to Older People's Services

Any Questions?

Thank You for Listening

Local Services, Local Solutions



References

- Improving care for people with dementia (2013) Department of Health,
- Prime Minister's Challenge on Dementia – Delivering major improvements in Dementia care and research by 2015 (2012) Department of Health,
- Dementia in the Acute Hospital; Prospective Cohort Study of Prevalence and Mortality, (2009), *British Journal of Psychiatry*, 195:61-66.
- Counting the Cost; Caring for people with dementia on Hospital wards (2009) Alzheimer's Society
- Casteleijn, JMF (2010) Development of an outcome measure for Occupational Therapists in Mental Health settings, Phd Thesis, University of Pretoria, South Africa
- Crouch, R and Alers, V (2005) Occupational Therapy in Psychiatry and Mental Health *Fourth Edition*, Whurr Publications, London