Enothe Congress 2014

Examining the wider context of **Evidence Based Occupational Therapy**

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Evidence Based Occupational Therapy (EBOT)

Context:

- "Evidence-based Practice" appeared in OT literature from 1990s.
- Debate:
  - Art vs. Science
  - Client centred practice vs. research evidence.
- OTs initially slow on uptake, but since 2000s it has become an integral part OT education programmes.
- UK Drivers to demonstrate clinical and cost effectiveness plus pressure for more information to informed clients promoted EBOT

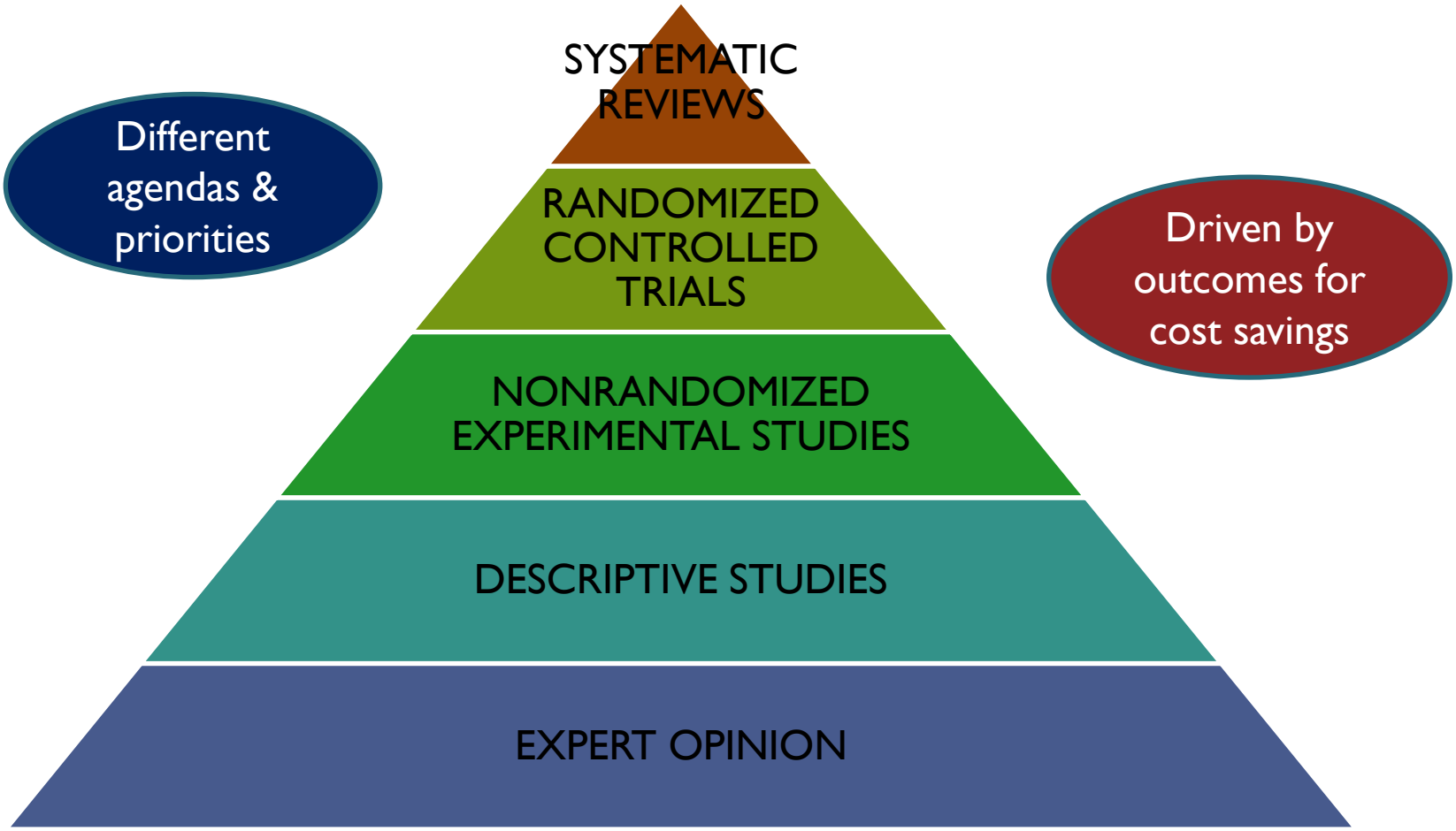
(Clare Taylor, 2007)

EBOT seeks to answer the question:

"Am I doing the right thing in the right way with the right person at the right time in the right place and am I the right person to be doing it?"

Anne Cusick Australian OT (2001, p.203)

What is the "best available" evidence?



Traditional hierarchy based on Sackett et al's (2000)

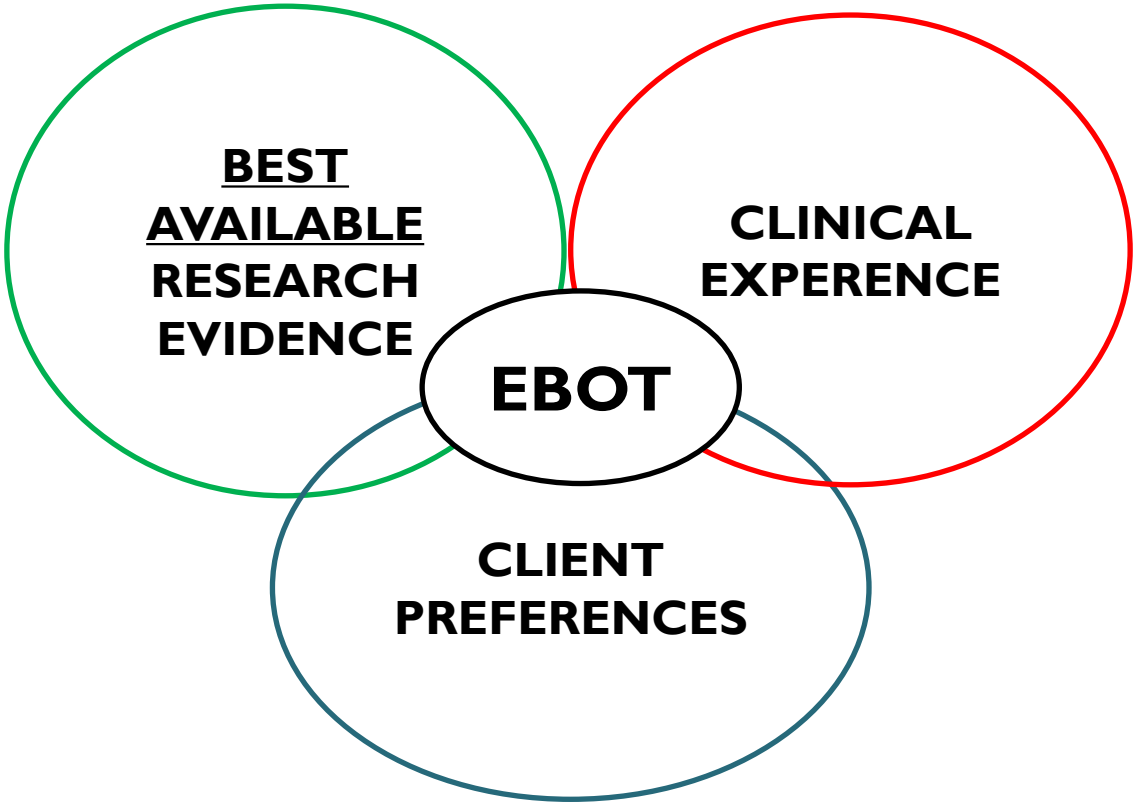
Not a "Cookbook" approach!

David Sackett
– EBM pioneer

"Evidence based medicine is not "cookbook" medicine. Because it requires a bottom up approach that integrates the **best external evidence with individual clinical expertise and patients' choice**, it cannot result in slavish, cookbook approaches to individual patient care."

(Sackett et al, 1996)

Evidence Based Occupational Therapy



Study Block Objectives

- Understand the framework for evidence. based occupational therapy
- Explore different types of research evidence.
- Consider what is meant by the "best evidence."
- How to integrate research evidence with clinical reasoning and client preferences

Focus of EBOT Assessment

- To ascertain the ability of students to gather and assimilate a wide range of relevant evidence.
- Students to consider the client and select the most effective and relevant assessments, interventions and evaluations based upon the best available evidence.
- The students will be assessed on how they visually present and verbally communicate their knowledge, understanding and reasoning.

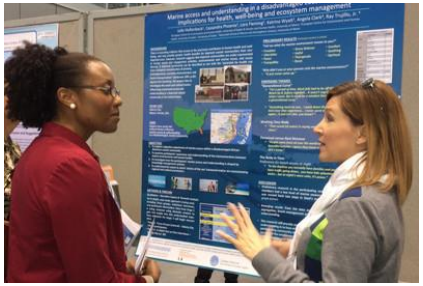
Assessment

- Poster Presentation (60%) & Viva voce (40%)
- Students to select their own case study and present case information within a poster.
- Students to design and create an A1 size poster which is professionally printed.
- Poster assessment criteria:
  - Poster Design, Layout and Presentation (20%)
  - Poster Content (30%)
  - Poster Abstract [300 words] (5%)
  - Poster Handout (5%)

Poster Content and Layout

- Summary of case study and profile
- Presenting condition
- Occupational Performance
- Identified needs
- Focus/Aims
- Assessment
- Intervention
- Evaluation
- Conclusion
- References (10 Max)

Viva Voce

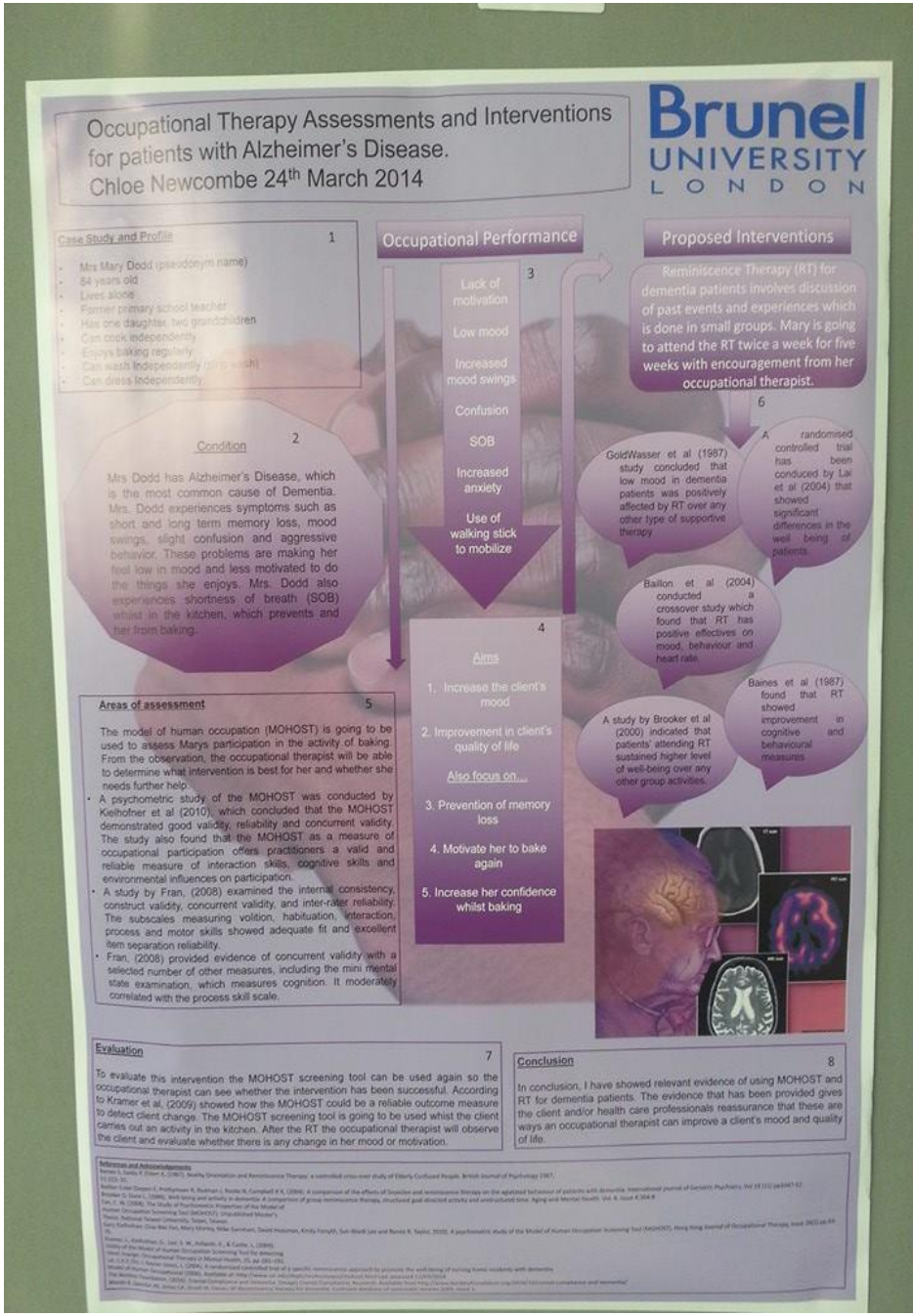


- Each student will verbally present their poster to the examiners (5 mins).
- Each student will participate in a 15-20 minutes viva.
- Based upon the information presented within their poster:

  - Students will be asked to explain and justify their clinical decisions in selecting the appropriate assessments, intervention and evaluation.
  - Explained how they have used available evidence to support their choice of assessment, intervention and evaluations.
  - Demonstrate how they will communicate the evidence to the client/service user/carer or family member.

Category	Please examine the poster according to each of the categories below and indicate an appropriate grade.	Marks	Percentage
Poster Design & Organisation	• Title & authors identification and affiliation (Brunel student) • Logical flow to poster • Innovation and creativity • Appropriate amount and size of text on poster • Colour, contrast and background choice • Design consistency • Professional appearance of poster • Spelling/grammar • Appropriate use of graphs, tables and images • Graphs, tables and images clearly explained, presented, labelled and titled • Copyright issues addressed if relevant		20%
Poster Content	• Originality • Relevant content included • Case study details • Occupational performance and needs • Focus and aims • Justification of assessment • Justification of intervention • Justification of evaluation • Relevant research evidence cited • Content is clear and concise • Good organisation of content • References indicated (Harvard) • Ethical issues e.g. confidentiality maintained throughout		30%
Viva Presentation Style	• Eye contact and body language while presenting • Refrain from reading poster directly • Clarity of communication • Demonstrates ability to address questions • Answers questions in a calm and professional manner • Ethical tone and confidentiality maintained throughout		10%
Viva Content	• Questions answered • Clarity of answers • Demonstrates sound clinical reasoning • Justification of decisions indicated • Consideration of client's context, culture and preferences in selection and application of evidence • Critique and selection of relevant literature explained • Claims supported by relevant evidence and/or theory from the literature • Communication of evidence demonstrated at an appropriate level for client		30%
Poster Abstract	• Provides a clear description of the poster presented		5%
Poster Handout	• Has been submitted on time		5%

The Therapeutic Use of Activities in Acute Mental Health
Adult Elective Orthopaedics
Total Hip Replacement


Occupational Therapy Assessments and Interventions for patients with Alzheimer's Disease.
Chloe Newcombe 24th March 2014
Brunel UNIVERSITY LONDON
Case Study and Profile 1
Mrs Mary Dodd (pseudonym name)
84 years old
Lives alone
Former primary school teacher
Has one daughter, two grandchildren
Can cook independently
Enjoys baking regularly
Can wash independently (girls wash)
Can dress independently
Occupational Performance 3
Lack of motivation
Low mood
Increased mood swings
Confusion
SOB
Increased anxiety
Use of walking stick to mobilize
Proposed Interventions
Reminiscence Therapy (RT) for dementia patients involves discussion of past events and experiences which is done in small groups. Mary is going to attend the RT twice a week for five weeks with encouragement from her occupational therapist.
6
Condition 2
Mrs Dodd has Alzheimer's Disease, which is the most common cause of Dementia. Mrs. Dodd experiences symptoms such as short and long term memory loss, mood swings, slight confusion and aggressive behavior. These problems are making her feel low in mood and less motivated to do the things she enjoys. Mrs. Dodd also experiences shortness of breath (SOB) whilst in the kitchen, which prevents and her from baking.
GoldWasser et al (1987) study concluded that low mood in dementia patients was positively affected by RT over any other type of supportive therapy
A randomised controlled trial has been conduced by Lai et al (2004) that showed significant differences in the well being of patients.
Baillon et al (2004) conducted a crossover study which found that RT has positive effectives on mood, behaviour and heart rate.
Baines et al (1987) found that RT showed improvement in cognitive and behavioural measures
A study by Brooker et al (2000) indicated that patients' attending RT sustained higher level of well-being over any other group activities.
4
Aims
1. Increase the client's mood
2. Improvement in client's quality of life
Also focus on...
3. Prevention of memory loss
4. Motivate her to bake again
5. Increase her confidence whilst baking
Areas of assessment 5
The model of human occupation (MOHOST) is going to be used to assess Marys participation in the activity of baking. From the observation, the occupational therapist will be able to determine what intervention is best for her and whether she needs further help.
• A psychometric study of the MOHOST was conducted by Kielhofner et al (2010), which concluded that the MOHOST demonstrated good validity, reliability and concurrent validity. The study also found that the MOHOST as a measure of occupational participation offers practitioners a valid and reliable measure of interaction skills, cognitive skills and environmental influences on participation.
• A study by Fran, (2008) examined the internal consistency, construct validity, concurrent validity, and inter-rater reliability. The subscales measuring volition, habituation, interaction, process and motor skills showed adequate fit and excellent item separation reliability.
• Fran, (2008) provided evidence of concurrent validity with a selected number of other measures, including the mini mental state examination, which measures cognition. It moderately correlated with the process skill scale.
Evaluation 7
To evaluate this intervention the MOHOST screening tool can be used again so the occupational therapist can see whether the intervention has been successful. According to Kramer et al, (2009) showed how the MOHOST could be a reliable outcome measure to detect client change. The MOHOST screening tool is going to be used whist the client carries out an activity in the kitchen. After the RT the occupational therapist will observe the client and evaluate whether there is any change in her mood or motivation.
Conclusion 8
In conclusion, I have showed relevant evidence of using MOHOST and RT for dementia patients. The evidence that has been provided gives the client and/or health care professionals reassurance that these are ways an occupational therapist can improve a client's mood and quality of life.
References and Acknowledgements

Sensory Integration Therapy for Sensory Processing Disorder

1. Case study Profile

- Timothy Smith
- 5 year old boy
- Presenting condition-Sensory Processing Disorder (SPD)
- Lives with Mother and 18 year old brother
- Home schooled by mother since last year
- Enjoys social interaction with adults primarily
- Likes to play & watch trains and dislikes physical activities.

(KidSpeak Therapy Services, 2013)

2. Occupational Performance

- Previous delayed Gross Motor Skills: sitting/standing/walking
- Vestibular hypersensivity
- Low muscle tone-leading to poor proprioceptive feedback
- Weak postural control
- Motor Planning difficulties
- Motor co-ordination difficulties
- Poor balance control-independent transitions are difficult & effortful
- Tactile system imbalance

3. Identified Needs

Muscle Strengthening

Sensory Integration (SI)

Postural Control

Motor Planning

4. Focus/Aims

- Develop vestibular & proprioceptive systems balance to improve his hypersensivity, generate muscle tone and improve balance control
- Work on motor planning skills
- Increase Timothy's core, upper and lower limb muscle strength to improve postural control and muscle tone
- Improve Timothy's tactile system imbalance
- Build Timothy's confidence in independent transitions.

(Autism Mind, 2013)

5. Assessments

Sensory Profile (SP)

To Assess current responses to sensory events in everyday life. The SP's validity is reported at 63% and construct validity is rated as Moderate (Dunn, 1999).

Goal Attainment Scale (GAS)

Set goals in collaboration with Timothy's mother focusing on identified needs from the SP and SIPT and scale accordingly.

Sensory Integration and Praxis Tests (SIPT)

A standardised assessment with a gold standard for assessing SI and praxis in children 4-8 years old.

To measure Timothy's ability to integrate sensory input and to provide standard scores. Inter-rater reliability 94-99 (Ayres, 1989; Mulligan, 1998).

6. Intervention

Focusing on a SI approach using the SI frame of reference. SI based occupational therapy using child-directed, sensory-rich activities to address Timothy's sensory needs by creating 'just-right' challenges to enhance independence and participation in daily life activities (Shaaf & Miller, 2005). Administer in a blocks of 10 weeks (1 session a week) in relation to the GAS.

(ESpecialNeeds, 2014)

7. Outcome Measures/Evaluation

GAS-Throughout the block of therapy the GAS will be used to document, quantify, and compare progress on each goal. Evidence suggests GAS captures individualised progress that is client-centred and meaningful to the family and good for measuring change during and after SI occupational therapy (Mailloux et al, 2007; Miller et al, 2007).

SIPT-Retest the SIPT post therapy block to compare results to see if improvements have been made.

Parent Interview- Conduct at end of intervention to gain Timothy's mother's perception on progression.

8. Conclusion

Timothy has a presenting condition of SPD which has an effect on his occupational profile showing underlying Motor coordination difficulties as well previous delayed gross motor skills. Timothy also has sensory integration issues where he is hypersensitive to vestibular input, leading to poor proprioceptive awareness, low muscle tone, poor postural control and motor planning skills. To Assess Timothy's current needs a SP, SIPT and GAS will be conducted. The intervention chosen is SI therapy in 10 week blocks. The standardised and non-standardised measures used for outcome are GAS, SIPT retest and a parent interview to record progress.

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9

VOCATIONAL REHABILITATION & SCHIZOPHRENIA; A CASE STUDY

John Cole- School of Health Sciences & Social Care, Brunel University

1 Case Study & Profile

- Rebecca Chambers*
- Female, 19 years old, Jamaican/Sudanese
- Mother of two children (15 mths & 2 yrs old) both in the care of social services.
- Expelled from school, due to knife incident
- Went to prison for Actual Bodily Harm (ABH)
- Wants to live independently with children
- Keen to complete health & beauty course.
- Interest: reading, shopping & arts & craft

2 Presenting Condition

- Poor insight to condition
- Poor compliance with medication
- Hallucination – voices instigating violence, thought disordered (fears of being controlled)
- Aggressive outbursts due to separation anxiety from her children
- Hopelessness in job pursuit and recovery
- Self isolation; feels lonely & unwanted
- Poor sleep patterns due to hallucinations
- Obese –(2st7 55kg BMI 30)

Pseudonyms used for confidentiality.

3 Occupational Performance & Needs

- Poor activity participation due to the belief of having no eyes and poor insight to see the benefit
- Poor social relationship with peers due to acts of violence and aggression
- Lack of strength and energy (easily fatigued) due to weight and poor sleeping patterns
- Experiences back aches with prolonged standing due to weight
- Poor motivation of recovery and job pursuit
- Low self-esteem and confidence

Focus & Aims

- To develop relationship and interaction skills through activity participation
- To stimulate interests and promote motivation
- To develop skills necessary for employment
- To promote self-esteem and confidence
- To improve quality of life

4 Assessment

Model of Human Occupation Screening Tool (MOHOST)

To assess Rebecca's competency in art therapy. Rebecca's weakest areas were pattern of occupation & communication with a mean score '1' (Rathbone et al, 2005)

Quality of Life Scale (QOL)

Assess Rebecca's QOL in 4 domains: physical, environmental & social, psychological. Lowest were Rebecca's weakest area (Stevington 2004)

Gym Assessment

Non-standardised, assessing the safe use of the gym & the environment safety (Skrzypinski & Faulkner, 2005)

Occupational Therapy Initial Assessment

To form Rebecca's occupational profile, identifying her goals, interests, background history.

Social Occupational Functional Scale (SOFS)

Access areas of communication, interpersonal, work & living skills on a 5-point Likert scale. Rebecca scored '3' = moderate impairment (Baravati 2005)

5 Intervention

Art Therapy

2x weekly – to promote Rebecca's creative expression, enabling her to experience herself differently & to develop new ways of relating to others (NICE, 2014)

Gym Sessions

4x weekly - To improve Rebecca's quality of life as she is obese and sedentary (Faulkner 2005), alleviates symptoms of depression, low self-esteem & social withdrawal (Faulkner 2005)

Motivational Interview

2x weekly – centres on motivational processes that facilitate change. To encourage Rebecca's motivation for participation.

Life Skills Programme

4x weekly – assesses skills associated with independent functioning. For Rebecca to develop interpersonal and communication skills, organisation and planning skills, anxiety management (Mars & Bradshaw, 2004)

All programmes are continuously over a 12 week period & then evaluated

6 Evaluation

All evaluations done after the 12 week programme to identify change
WHO-QOL – improvement on all areas with scores of 3 mainly. A 5-point likert scale: 1= poor QOL, 5=good QOL
MOHOST – Rebecca has improved from '1' to 'A' in occupational pattern, and though communication skills improved to '1' it still inhibits her participation.
SOFS – Rebecca improved to a score of 2: mild impairment.
Rebecca reports she particularly enjoyed the art therapy because it provided a calming escape for her when she's feeling angry and felt the life skills programme was beneficial. She reported the motivational interviewing has helped re-affirmed her goals and now has more belief in herself to work harder towards her recovery. She now attends more therapy groups such as pampering to develop her beauty skills and healthy living and walking groups to improve her physical health instead of the gym.

Conclusion

The areas of occupation targeted with vocational rehabilitation is work, productivity and social participation and the intervention approach is health promotion focusing on occupation-based interventions to match Rebecca's goals and enhance her occupational engagement (AOTA, 2008).
Many studies have shown the advantages of employment to people with schizophrenia (Bevan et al, 2003) such as learning new skills, development of friendships, financial rewards, stabilisation of condition and increased self-esteem. These advantages could be of benefit and motivation to Rebecca especially as in forensic settings, clients' engagement in occupations is greatly impeded due to environmental restraints & policies. This can lead to hopelessness and poor mental health which Rebecca has been affected by. With client-feedback and research evidence outlined, Rebecca can develop skills to enable her to possibly work in the future. With better support and increased understanding of schizophrenia and the importance of work for recovery, affected people could gain access to and remain in employment (Bevan et al, 2003).

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Brunel UNIVERSITY LONDON

Effective End of Life Care

Sophia Harvey, Brunel University.

Case Study

- 85 year old Male
- **Advanced Metastatic Prostate Cancer**
- Palliative Programme

Occupational Profile

- Retired
- Spending time with wife
- Married
- Gardening
- Two Supportive Children
- Bird Watching

Presenting Condition.

- Assistance required in ADL's
- Inhibited participation in leisure activities
- *Prostate Cancer* - Abnormal overgrowth of cells in the prostate gland.
- *Metastasis* - Growth has spread, invading other areas of the body – Incurable.

Identified Needs.

- Facilitate Mobility
- Manage Fatigue and Strength
- Facilitate Occupational Engagement

Affected Areas Of Occupational Performance.

- Restricted Engagement in leisure activities
- Inhibited Mobilisation indoors and outdoors
- Limited Endurance
- Reduced Strength

Assessment – COPM Canadian Occupational Performance Measure.

- **Client-Centred and Holistic**
- **Self-rated Occupational Performance and Satisfaction**
- **Identifies Problem Areas and Meaningful Occupations**
- **Appropriate for Variety of Client Groups and Settings**
- **Reliable, Valid, Responsive to change over time and Feasible.**

(Carswell et al, 2004; COT, 2011; Gitlow et al,2006)

Focus/Aim.

To Improve Occupational Performance, Enabling Engagement in Meaningful Occupation.

Goal.

To be able to spend time with his wife in the garden bird watching at least once a day, with the use of assistive technology.

Intervention

- **Enable Participation in Meaningful Occupation – of sitting in the garden watching the birds with his wife.**
- **Promote Meaningful Social Interaction with Wife**
- **Reduce Fatigue, Conserve Energy and Manage Mobility via Assistive Technology**

(Bental and Holmes, 2011; COT, 2011,Gitlow et al, 2006; Kealeyand Mcintyre, 2005)

Evaluation Outcome Measure – COPM

- **Evaluates Clients' Occupational Performance and Satisfaction, *Post Intervention*.**
- **Measures Changes over Time**
- **Identifies Achievement of Goal(s) Selected from Assessment.**

(Carswell et al, 2004; COT, 2011; Gitlow et al,2006)

If Deceased: Observation and discussion with wife can be carried out.

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Conclusion.

The COPM allows for a client-centred approach, collaboratively establishing a meaningful intervention specific to the client, and measures change over time. Assistive technology compensates for decline in function and facilitates occupational engagement.

Occupational Therapy, Making Wishes Come True

http://www.technologyreview.com/news/428025/pill-could-reverse-effects-of-a-stroke-long-after-it-hits/

Ischaemic stroke : Occupational Therapy intervention

Tiffany Ollivierre – Harris ,Occupational Therapy student, Brunel University

Case study

- Joan*, 60
- Lives with her husband in London.
- Joan had a mild Ischaemic stroke 2 weeks ago.
- Noted to have a left side weakness
- Is now medically stable.
- Previously fully independent with all self care and activities of daily living (ADL)

http://ischemicstroke.org/tag/ischemic-stroke/

Occupational performance : identified needs and aims

Mobilising with a frame independently

Difficulty with dressing assistance is required

Washing with minimal assistance

Transferring independently

Assessment: identified focus and aim

Canadian Occupational Performance Measure (COPM) was used to enable Joan to identify her preferred occupational performance area to work on. (Chan CCH; Lee TMC, 1997)

COPM can be administered before and after intervention and is a client centred way of assessing Joan's needs.

Joan identified dressing as an area she was unsatisfied with and wanted to improve her performance on.

This lead to the decision to use The Nottingham Stroke Dressing Assessment (NSDA) along with the accompanying dressing error analysis form specifically focused on dressing difficulties.

This allowed the therapist to identify her current level of performance in dressing and break down the task to individual components that she find most difficult which then could be worked on with the occupational therapist. Fletcher-Smith J et al ,2010)

The extend Barthel index was administered at the assessment stage to gain an understanding of her current functional level and re-administered at the end of her intervention. Joan's aim is to be able to dress herself with independently by the end of this intervention.

Conclusion

- COPM will gave a client centred assessment while the NSDA an accurate assessment of Joan's performance in dressing as did the extended Barthel index.
- The functional upper extremity training program enabled Joan to improve function in her weak side through a functional and meaningful tasks. There is strong (Level 1a) evidence that repetitive task specific training techniques improve measures of upper extremity function. (Foley et al, 2013)
- COPM re-assessed Joan's satisfaction while the extended Barthel index showed any improvements or change since intervention was implemented.

Evaluation

Another measure used is the COPM, which was given at the start and can now be used to re-assess satisfaction and performance levels since the intervention.

Outcome measures can be used to determine significance of intervention. The ease of performing the task and the degree of independence from any form of help were evaluated by the Extended Barthel Index upon admission and before discharge. This is more sensitive to changes over time than the Barthel index (Chanubol et al, 2012)

Intervention

The best intervention based on evidence chosen for Joan was a functional upper extremity training Program. This intervention is task specific and uses task-oriented functional training to facilitate real-world activities . (Davis JZ, 2006) In Joan's case the activity of putting on and off and buttoning her cardigan is her specific task, selected after the NSDA assessment highlighted her difficulty in this area. According to Classen et al. (1998) focal transcranial magnetic stimulation and functional magnetic resonance imaging now show task-specific training, compared to traditional stroke rehabilitation, has long-lasting cortical reorganization specific to the corresponding areas being used in training. 'This intervention is based on the framework of the ICF. The use of environmental factors and personal factors in task selection can influence disability by reducing impairments related to body functions and structures and improve function by facilitating activity and participation.' (Davis JZ, 2006)

(Davis JZ, 2006)

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* pseudonym used

Student Comments

"I found it quite difficult at first as I was given so much choice with what I could do, but by the end I really enjoyed the opportunity to demonstrate my creativity and knowledge through my poster." (Anna)

"I learn so much, searching, selecting and critiquing the evidence, thinking about whether the best evidence for assessments and treatments are always the most appropriate choice."

(Katie)

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