The Admiral, the Psychologist and the Museum; a clinical case study of using rehabilitation in Frontotemporal Dementia

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Rationale

- Environmental pressures in the workplace make it harder to do much more than a neuropsychological assessment when someone is referred to an older adults service.

- However, there are things beyond assessment that neuropsychology can offer which add value, that might be forgotten or lost due to these environmental pressures.

- In this talk I am aiming to present a case study where neuropsychology added value beyond the assessment.
Overview

- Referral
- Background
- Neuropsychological testing
- Formulation
- Rehabilitation
Question:

What have I, Barack Obama, Margaret Thatcher, David Cameron, Prince William, Napoleon Bonaparte, Winston Churchill and Leonardo DaVinci got in common?
Referral

- GP referral, Kingsley had developed an obsession to “a gambling organisation”
- Some personality change
- Seen by Consultant Psychiatrist
- Possible Frontotemporal dementia
- Requested further neuropsychological assessment
Background

- Male
- 73 years old
- Born and spent early childhood years in Kenya, moving to England about the age of six
- Family financially successful, emphasis on achievement
- Went to boarding school
- Attended Cambridge University
- In the Navy for five years
- Managing director of a company employing 15,000 people
- Involved with other ventures
Current Difficulties

- Gambling addiction turned out to be repeated investment in internet scams, costing over £50,000
- Forgetting dates and names that he would not have done premorbidly
- Losing and misplacing things
- Forgotten how to work complex computer programmes
- Withdrawn at social events

- Sleep pattern unaffected
- Appetite normal
- No falls
- Gait normal, no bradykinesia
My Experience of Him

- Felt like he was part of “the old boys’ club”
- Particularly formal
- Smartly dressed
- Spoke in a confident, knowledgeable tone
- Bright and articulate
- Felt conscious as I was reading the tests
- Quizzing me at times
- Warmed up to me as session progressed
- Unusual mannerisms
Testing

Battery of assessments:

- ACE-III
- Delis Kaplan Executive Functioning System
- Doors and People Test
- Repeatable Battery for Assessment of Neuropsychological Status
- Test of Premorbid Functioning
- Wechsler Abbreviated Scale of Intelligence
- Subtests from MEAMS, BADS, Proverbs
- Hospital Anxiety and Depression Scale
ACE-III and HADS

Cognitive screening measure assessing five cognitive domains:

• Attention and Orientation 18/18
• Memory 24/26
• Fluency 11/14
• Language 26/26
• Visuospatial 16/16
• Total ACE-III Score 95/100

HADS:

• Depression subscale 3
• Anxiety subscale 3
Premorbid IQ and Various Frontal Tests

- **Test of Premorbid Functioning (TOPF):**
  - 67/70 calculating an estimated FSIQ of 121

- **Behavioural Assessment of Dysexecutive Syndrome (BADS):**
  - Key Search test: fine
  - Temporal Judgement: all in acceptable parameters, but “odd” response to length of dogs life

- **Middlesex Elderly Assessment of Mental State (MEAMS):**
  - Motor perseveration: fine, no errors

- **Proverbs Test:**
  - ‘Too many cooks spoil the broth’; ‘A rolling stone gathers no moss’; ‘Still waters run deep’; ‘To kill two birds with one stone’. Provided four accurate abstract interpretations
The Doors and People Test

Specialist Memory Test:
- People Test (Verbal recall) 50th percentile
- Doors Test (Visual recognition) 50th percentile
- Shapes (Visual recall) 25th percentile
- Names (Verbal recognition) 75th percentile
- Overall age-scaled score 50th percentile

Visual and Verbal Memory:
- Visual memory 25-50th percentile
- Verbal memory 75th percentile
- Visual-verbal discrepancy 25th percentile

Recall and Recognition:
- Recall memory 25-50th percentile
- Recognition memory 50-75th percentile
- Recall-recognition discrepancy 25-50th percentile

Forgetting Scores:
- Verbal 75th percentile
- Visual 75th percentile
- Overall 75-90th percentile
Repeatable Battery for Neuropsychological Status

First designed to be a screening measure for dementia which examined four domains of cognition. However, is often used clinically as more than just a screen.

- Immediate memory: 114 (82\textsuperscript{nd} percentile)
- Visuospatial/constructional: 100 (50\textsuperscript{th} percentile)
- Language: 96 (39\textsuperscript{th} percentile)
- Attention: 103 (58\textsuperscript{th} percentile)
- Delayed memory: 110 (75\textsuperscript{th} percentile)
- Total scale: 103 (58\textsuperscript{th} percentile)
Delis Kaplan Executive Functioning Systems

Test of executive functioning made up of nine subtests. Kingsley completed five subtests:

- Colour-word interference. Inhibition 10: Inhibition/switching 6
- Twenty questions. Initial abstraction score 11
- Word context. Total consecutively correct 11
- Tower test. Total achievement score 6
- Proverbs test. Total achievement score 9
Wechsler Abbreviated Scale of Intelligence

- Four item subtest that assesses general cognitive abilities.
- Produces a performance IQ, a verbal IQ and a full scale IQ

- Performance IQ = 119 (90\textsuperscript{th} percentile)
- Verbal IQ = 130 (98\textsuperscript{th} percentile)
- Full scale IQ = 128 (97\textsuperscript{th} percentile)
Interpretation

- Not surprisingly, ceiling effects on a number of tests.
- This made interpretation, in relation to diagnosis, more complicated.
- Due to persevered memory across all tests and observations between sessions, felt memory based dementia was unlikely.
- Due to intact visuospatial functioning, stable (non fluctuating presentation), no falls/bradykinesia/subcortical features, dementia with Lewy bodies considered doubtful.
- No focal neurological signs, memory consistently good, clear CT scan with minimal ischemic changes suggested vascular dementia was unlikely.
- Absence of any subcortical features, age suggested rarer dementias unlikely (PSP, CBD).
- Scores on depression/anxiety inventory normal. No biological symptoms of functional illness. Good affect in session meant depression/anxiety was improbable.
- Pronounced deficits in functional activities related to executive functioning and patchy performance (although not clinically significant) on executive functioning tests, suggested behavioural variant Frontotemporal dementia was most likely.
Recommendations and Discharge?

- Recommendations in the report related to structure, routine, predictability, advising wife how to manage some of these symptoms.

- Service for FTD patients is poor compared to Alzheimer’s disease.

- Therefore, typically discharge.

- At this point, I planned to discharge Kingsley.

- However, wife had different ideas.

- I agreed to see for four sessions to help work on some of the concerns.
Based on Peter Kinderman’s model, although a lot of these factors also overlap with Ian James’s Newcastle Challenging Behaviour model.
CAT diagram

In Control
Respected
Powerful
Competent

Out of control
Worthless
Powerless
Incompetent

Due to Neurodegenerative Illness, unable to reach standards most of the time

Strives to get away From these

Makes a bad decision and gets it wrong

Gives up
Working with the Family

- Caregiver burden is greater in FTD than other dementias (Mioshi et al., 2009). Evidence of efficacy for these reducing caregiver distress (Diehl, Mayer, Forstl & Kurz, 2003).

- Therefore first part of rehabilitation was to support the family. As Kingsley’s wife was present at feedback session, it felt appropriate to do it then. There is evidence that this can reduce caregiver stress (Letts et al., 2011).

- Family were struggling. It felt there was a degree of personalisation, especially in social situations, which seemed to be driven by shame/embarrassment.

- Initially tried to do some education linking presentation to brain function. However, focus then shifted to another behaviour they found distressing. This did not feel uncomfortable more that they were offloading.

- After I had listened, they were more receptive to the psychoeducation - and the more I went over it with each example, the clearer it became for them.

- From this, we were then able to have a helpful conversation about how things at home could be best supported, i.e. appropriately prompting, management of confrontation. These were based on the principles of Robinson’s (2001) paper on supporting FTD. They also came up with some creative ideas which I was able to work with in my sessions.

- Whilst I felt the family probably had a better understanding of Kingsley’s FTD - and were then able to use this at home- I think deep down, they still struggled with fear and embarrassment in social situations. I did signpost to support groups but they were not interested in this.
Rehabilitation

- Using the formulation, we could understand some of the psychological factors and how they impacted upon Kingsley’s FTD.

- Plan was to use behavioural activation to increase activities he did premorbidly that previously provided purpose, meaning and structure. Had to think about using compensation strategies to support this (Kortte & Rogalski, 2013).

- My own prejudices were that due to his FTD and how high functioning he was premorbidly, he would not have the motivation to do the behavioural activation work.

- Straight away he was on board with me. On reflection, this came from his hierarchical status – he insisted on calling me Doctor and if the Doctor suggested it, he would do it.

- Initially slightly uncomfortable, as I wanted to create a collaborative environment not a didactic one. I was also aware of the hypothesised reciprocal role of “in control/respected/powerful versus “out of control/ worthless/powerless” - and that I was potentially being put in the top one.

- If I was doing pure CAT, I would have named this dynamic and how it might have been unhelpful. However, I felt that this was almost another piece of work in itself so rightly or wrongly, I avoided it.
Rehabilitation

- Identified things Kingsley wanted to do as well as his interests and hobbies.

- Kingsley wanted to work, preferably doing accounts as he had enjoyed this.

- Explored further and it was not the paid aspect he missed but the doing and meeting new people aspect.

- He frequently talked about his time in the Navy. There was a navy museum based locally 15 minutes from him; he had first hand experience of many things contained in the museum.

- I suggested that maybe he could approach the museum as they often needed volunteers (something his wife had mentioned).

- Kingsley agreed and did it without a hesitation.
Implementing change

- When he returned for our next session, he had become a volunteer and was working there a day a week.

- Due to his knowledge and experience, he was given a more prominent role as an expert guide as he could talk through things in great detail.

- By the next session, he had been asked to increase his hours and was there three days a week.

- Kingsley’s wife fed back to me that initially there had been concerns about his “direct way with the visitors”. The direct way was partly due to the FTD, but also that he was acting like he was still in the navy.

- However, the visitors really enjoyed this and felt they were getting the authentic experience.

- By the final visit, he had been asked to help organise their accounts.

- The most encouraging aspect was then, without prompting, he pursued some working with the twinning society. He was fluent in a number of languages and this was helpful for the annual celebrations where a small team of delegates would visit twinned towns. This resulted in him spending a week in Germany.

- At this point our work came to an end and he scored 0 on the anxiety subscale of the HADS and 1 on the depression subscale.
Summary

Sometimes service demand to see and assess people for dementia is so great that the role of Clinical Psychologists in older adults services can feel more akin to working on a production line.

Consequently, there is a danger that a lot of the other things that we can do well – and which add value following diagnosis – do not happen.

In this case, there was clear benefit from having just four extra sessions.

This is a shame as it can make a real difference. Although this cannot be substantiated, using this proactive approach could be cost effective, i.e. if we did not offer this and he continued to be bored, struggle for a sense of purpose it could have escalated to more severe behaviours that challenge requiring a greater intervention.
References


