Neurocognitive Impairments

Psychological management: practical approaches to intervention and support

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Nothing to declare

Neurocognitive Screening Service

Neurocognitive Screening Service for patients reporting mild to moderate cognitive difficulties incl.

- Concentration and attention
- Memory
- Slowed thinking
- Difficulties with complex tasks
- Co-ordination and balance issues
- Movement difficulties
- Personality change, irritability and emotional changes

* Inpatient – neurocognitive abilities can fluctuate during acute stages of illness, we advise for the condition to stabilise prior to testing

Neurocognitive Screening Service

The Neurocognitive screening (approx. 2 hours) consists of a:

a) Psychosocial interview - complaints, health concerns, medications, social situation, mood, educational level, employment, HIV factors, alcohol & drug use
b) Patient Health Questionnaire (PHQ9) depression
c) Generalised Anxiety Disorder (GAD7) anxiety
d) FAST Alcohol Screening
e) Mini Mental State Examination
f) Trailmaking Task (measuring executive function)
g) RBANS - brief neurocognitive battery useful for detecting mild to moderate cognitive deficits. It measures immediate and delayed memory, attention, language, and visuospatial skills

Interpretation and Challenges

- Assessment of neurocognitive impairments is not like a blood test!
- It is NOT directly observable AND we infer existence of impairments from scores on tests and observable behaviours
- No perfect screening tool, many brief tests available with varying 'norms' / inconsistent prevalence / diagnostic issues
- Interpretation affected by person's contexts incl. age, mood, health, drug/alcohol, fatigue/pain, culture, education, language etc… English tests and norms may not be relevant to our client group!
- Anxiety and stress during test can affect performance

Recommendations

- Retesting in a year to chart cognitive performance over time (longer in some cases)
- Referral to Neurology for interventions / neuro-rehabilitation if significant deficits are identified
- A referral to drug and alcohol services
- Medication Review - if ARVs thought to be contributing, request immediate medication review with consultant
- Offer Psychological intervention to treat mood problems and/or symptom management

Audit of screening completed in 2012

16 patients screened, 13 male, 3 females, mean age 47/48

Majority HIV + for long time, undetectable viral load, high CD4

Screening outcome

As most showed no cognitive concerns,

- Reassurance was an important intervention
- Discussion of memory strategies
- Referral for therapy

Outcome	No.
Reassurance	5
Memory strategies	4
Referral to HIV psychology Adherence Confidence/Self esteem Depression/Anxiety	3 1 1 1
Refer to Psychiatry	1
Refer to Memory Clinic via GP	1
No further action required	2

Psychological Management of Neurocognitive Impairments

1) Ensure that patients are on ARVs / adherent
2) Address drug / alcohol issues
3) Offer psychological therapy for depression, anxiety (if contributing)
4) Suggestions of lifestyle changes
5) Offer Mindfulness and Meditation for symptom management
6) Teach compensatory strategies / memory improvement techniques

Psychological Therapy

Treating depression /anxiety can improve cognitive functioning

- Unmanaged depression & anxiety can decrease adherence to ART (1) and increase substance abuse… both effect cognitive function
- Symptoms of low motivation, hopelessness, negative beliefs, lethargy, sleep, concentration and attention effects on functioning

Psychological interventions incl. cognitive behaviour therapy (CBT) and mindfulness CBT effective in managing depression and anxiety (2)

Therapy targets two levels

1) Increasing activity and making positive lifestyle changes
2) Challenging / reducing negative thoughts / beliefs

Increasing Activity & Lifestyle Changes

Increasing activity & lifestyle changes can increase attention, motivation, elevate mood and improve cognitive function

- Do more enjoyable activities - e.g., learning something new could increase motivation, attention, enhance mood and cognitive function
- Increasing social interactions - to combat loneliness and boredom
- Exercise – evidence - reduces depression (3) positive results on neurocognitive performance in healthy older adults (4)
- Diet, sleep and rest – sensible way to decreases fatigue
- Reduce substance use (drug, alcohol, smoking)
- Keeping a journal and daily diary
- Cognitive stimulation / computer training could increase attention, focus and elevate mood

Challenging Negative Thoughts / Beliefs

- Reassure and normalise symptoms: we all have some symptoms once in a while / go away on their own
- Psychoeducation: link between cognitive functioning & mood problems
- Management of rumination / worry about cognitive impairments
  e.g., worrying about impairments can cause further impairments!
- Challenge negative thoughts: weighing its truthfulness / evidence for & against, more balanced perspective about situation/others/themselves
- Address HIV related issues, NATs / beliefs …

Psychological issues for HIV+ people

HIV+ individuals experience significantly higher rates of MH problems than gen pop (5). Potential difficulties during various transitions points..

- HIV+ test result: grief reaction / adjustment issues
- Being HIV+: identity issues
- Co-morbid: pre-existing mental / physical health problems
- Disclosure: in relationships and managing sexual relations
- Medication: starting, changing , adhering, side-effects
- Major life decisions: work, marriage, pregnancy, housing, benefits, immigration, criminilisation etc complicated by HIV illness?
- Long-term issues: pain, fatigue, illness, hospitalisation, HIV-related cognitive impairments, palliative care

Mindfulness and Meditation

Definition Mindfulness: controlling our focus of attention by paying attention on purpose, in the present moment, and non-judgementally

Practical way to focus on anything in the present (not past or future) and be more engaged in daily life e.g., washing up

Growing evidence indicate that mindfulness & meditation is associated with improvements in the following areas (6, 7):

- Attention and control
- Enhancing cognition and cognitive flexibility
- Enhancing memory
- Emotional regulation
- Self-awareness

Compensatory Strategies

- Compensatory strategies aims to help patients to improve impairment (e.g., reminders to compensate for forgetfulness)

- Restorative approaches rely on correcting cognitive deficits through learning (8) via computerized and manual cognitive exercises (9).
  We recommend this to patients but do not offer this in our service

- Evidence for compensatory approaches
- Small-to-medium effects on lab-based neurocognitive tests (10)
- Greater benefits on measures of daily/psychosocial functioning (11)

Compensatory Strategies

General advice to patients to help improve memory, attention, concentration and executive problems incl.

- Paying attention to materials/tasks and concentrating long enough without distractions i.e., turning off mobile phones, TV
- Minimise distractions: work in quiet environment, reduce interruptions, and visual clutter
- Getting enough rest, sleep and eating well
- Carrying out day to day activities / a little at a time / slow pace
- Look after yourself: managing anxiety, stress and depression and the triggers. Get support from family and friends

Note: general advice can be offered by most professionals

Improving Attention and Concentration

Pace yourself

- Take frequent breaks, extra time
- Break down large tasks into smaller parts / one thing at a time
- Do more demanding work when more alert (AM/PM?)

Be organised

- Have a set place for things, such as keys, wallet, diary, etc
- Be organised at home/work e.g. keep papers in labelled folders

Stay focused

- Saying out loud what you are doing can help to attend and remember e.g., saying “that’s the light off” as you turn off the light
- Use reminders to help you focus e.g., message card “stay focused”
- Practice habit of telling yourself “pay attention!” (12)

Coping with executive problems

Help with problem solving, planning and organising

Plan ahead

- Set up a strategy / instructions for tasks/meetings
- Practice social interactions that might be difficult
- Write down points/questions you need to ask before an event

Use prompts

- Use reminder, alarm etc to help organise e.g., mobile or written list

Organise your environment

- Have a set place for things around the house / work
- Have prompts and reminders in prominent places

Coping with executive problems

Paying attention

- As you do things, just saying out loud what you are doing can help you remember for later e.g., “that’s the light off”

Stay Focused

- Use reminders from your environment to help you focus

Self-Questions: writing down a series of questions can help solve tasks:

- What is the overall task or goal?
- What are the steps?
- What order do I need to do them in?
- Do I know how to do each step?
- Am I doing what I planned to do?

External strategies to improve memory

- Diary, calendars, notebooks, mobile -appointments, planning, reminders
- Dosette boxes for medications
- Stick lists/notes in prominent places / 'dry-wipe' message boards
- Leave reminders or anything you need to take by the door
- Write instructions of tasks, keep the instructions in an obvious place
- Keep a journal - what you have been doing and who you have seen
- Carry a tape recorder or Dictaphone
- Get a memory phone to help you dial frequently used numbers

Remembering words

- Association - link a thing to be remembered to something else e.g., link with colour, smell, shape, or feeling
- Location / journey - linking a memory to a place or journeys to hang information together. To remember a list of items, for example, associate these things with the landmarks or stops on your journey
- The link and story methods - Remembering a simple list with a memorable story featuring them. Can use acronyms, rhymes or imagined stories to remember certain words etc.
- Learning New Information – first understand what you are learning, try to remember the most important pieces of information and learn them in small chunks. Ask questions about what this material means. The more you actively think about and elaborate on new material the easier it will be to remember it

Remembering people's names

- Face association: examine a person's face discreetly, try to find an unusual feature (ears, hairline etc). Create an association between that characteristic, the face, and the name in your mind i.e., a rhyme or word with the same letter (e.g. Hairy Harry)
- Repetition: when you are introduced, ask the person to repeat their name and use it in your conversation, and if unusual, ask for the spelling / origin. Keep in mind that the more you hear and see the name, the more likely it is to sink in
- Review the name in your mind afterwards i.e., write it down and make notes

Summary

Refer for a neurocognitive screen if difficulties in:

Concentration, attention, memory, slowed thinking, co-ordination / movement difficulties, with personality change and emotional changes

Psychological Management include the following

1. Medical – on ARVs & adherent
2. Address drug / alcohol issues
3. Psychological therapy for mood problems
4. Mindfulness & meditation for symptom management
5. Lifestyle changes
6. Compensatory strategies / memory improvement techniques

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RBANS Repeatable Battery for the Assessment of Neuropsychological Status Christopher Randolp 1998

Any Questions?