Assessment of mental capacity

Professor Matthew Hotopf
Psychological Medicine
Institute of Psychiatry
Summary

• Clinical assessments ≠ research assessments
• Mental capacity can be reliably assessed when it’s easy
• Which factors make capacity more or less likely?
• Three things which make assessment difficult
Amputation or death?

• A 64 year old man with type II diabetes has an infected foot ulcer in context of severe micro- and macro-vascular disease.
• He has been in hospital for 5 weeks.
• The infection is spreading despite 2 courses of iv antibiotics, and the clinical team think a below knee amputation is warranted.
• He is divorced from first wife but has a partner. He has little contact with his two adult daughters.
• The patient does not consent to surgery.
• Patient and partner join together to say that they are angry about the admission. Often contradictory information.
Amputation or death?

- The patient is obviously frail. He speaks with an indistinct voice which is at times hard to understand.
- His partner keeps interjecting and answering on his behalf.
- Cognitive assessment is difficult – he answers “I don’t know” frequently – can’t recall day and date, but otherwise orientated in time and place. Digit span of 5 (after several attempts). Recalled 1/3 items in MMSE.
- He is low in mood, fed up with life, appears withdrawn.

What would you do before determining capacity?
- In what ways is the clinical situation different from research?
MCA definition of incapacity

• Relates to a specific decision
• “Due to an impairment of, or disturbance in, the functioning of brain or mind individual is:
  a) Unable to understand information relevant to the decision
  b) Unable to retain the information relevant to the decision
  c) Unable to use or weigh the information relevant to the decision as part of the process of making the decision
  OR
  d) Unable to communicate the decision”
MacArthur Competence Assessment Tool – Treatment
Grisso and Appelbaum, 1998

Semi structured interview
Determine treatment decision to be assessed
If necessary impart information
Rate: Understanding

   Appreciation

Reasoning
Expressing a choice
Appreciation

• “Let’s review the choices that you have. First... second... etc. Which of these seems best for you? Which do you think you are most likely to want?”

• “you think that [state patient’s choice] might be best. Tell me what makes that seem better than the others?”
Logical consistency

• “I told you some of the possible benefits and risks or discomforts of [name patient’s preferred treatment option]. What are some ways these might influence your everyday activities at home or at work?”

• “Now let’s consider [name of any other treatment or no treatment option] what are some other ways that the outcomes of that option might influence your everyday activities at home or work?”
Inter-rater reliability for “binary” assessments


• Two independent raters $\rightarrow$ 91% agreement (kappa = 0.82)

• Panel of experts rating transcripts with clinical information $\rightarrow$ kappa 0.84

Conclusion: capacity can be reliably assessed
Mammogram
(2 radiologists)
kappa=0.67

Exercise ECG
(2 cardiologists)
kappa=0.30

Peripheral blood film
(2 haematologists)
kappa=0.39

Sackett, et al 1991 Clinical Epidemiology 2nd Ed
Which factors impact capacity?

• Little evidence that socio-demographic or socio-economic status impact
Demographic variables are usually not associated with incapacity

- Gender (0/12)
- Socio-economic status (2/4)
- Educational status (1/7)
- Ethnic group (1/7)

Okai et al, BJPych 2007
Which factors impact capacity?

- Little evidence that socio-demographic or socio-economic status impact
- Strong evidence that clinical diagnosis impacts
Table 2 | Estimates of prevalence of mental incapacity by diagnosis* and legal status

<table>
<thead>
<tr>
<th>Sample</th>
<th>No</th>
<th>Prevalence (%) of incapacity (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>338</td>
<td>60 (55 to 65)</td>
</tr>
<tr>
<td>Psychotic illness</td>
<td>175</td>
<td>75 (68 to 81)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>80</td>
<td>81 (71 to 89)</td>
</tr>
<tr>
<td>Bipolar affective disorder—mania</td>
<td>36</td>
<td>97 (86 to 100)</td>
</tr>
<tr>
<td>Bipolar affective disorder—depression</td>
<td>8</td>
<td>25 (3 to 65)</td>
</tr>
<tr>
<td>Depression</td>
<td>67</td>
<td>31 (20 to 44)</td>
</tr>
<tr>
<td>Personality disorder</td>
<td>24</td>
<td>4 (0 to 21)</td>
</tr>
<tr>
<td>Informal admission</td>
<td>188</td>
<td>39 (32 to 46)</td>
</tr>
<tr>
<td>Detained</td>
<td>150</td>
<td>86 (79 to 91)</td>
</tr>
</tbody>
</table>

*International classification of diseases, 10th revision.
Which factors impact capacity?

• Socio-demographic or socio-economic status?
• Clinical diagnosis?
• Assessor’s background?
A 32-year-old woman took an overdose of paracetamol after she found out her husband was having an affair. She was well before hearing the news. She became very angry about what had happened, and could not imagine living without her husband. She was in liver failure due to the effects of paracetamol. She was not cognitively impaired. Although she was accepting conservative management, she expressed a firm view that she did not want a liver transplant, and a psychiatric opinion was sought by the medical team. The liver team thought that she had a 90% chance of dying unless she had the liver transplant.
% rating patient as “probably” or “definitely” lacking mental capacity

Olumoroti et al, J Mental Health (2007) 16: 521-8

<table>
<thead>
<tr>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old age</td>
<td>36.1</td>
</tr>
<tr>
<td>Child and adolescent</td>
<td>39.5</td>
</tr>
<tr>
<td>General adult</td>
<td>46.9</td>
</tr>
<tr>
<td>Substance misuse</td>
<td>50.0</td>
</tr>
<tr>
<td>Learning disability</td>
<td>54.5</td>
</tr>
<tr>
<td>Forensic</td>
<td>58.8</td>
</tr>
<tr>
<td>Liaison</td>
<td>63.4</td>
</tr>
<tr>
<td>Psychotherapy</td>
<td>80.0</td>
</tr>
</tbody>
</table>

$\chi^2=13.6, \text{ 7df, } p=0.06$
Why are some capacity decisions difficult?

1. Nature of decision
2. Nature of disorder of or disturbance in the functioning of brain or mind
3. How #2 impacts on abilities
Nature of decision (Clinical)

• Unclear about risk benefit ratio regarding treatments.
• How much risk is acceptable?
• How clearly understood are the outcomes?
• Urgent decisions may reduce possibility of supporting decision making.
• Long term decisions – e.g. placement – may involve a process where capacity fluctuates and preferences change over time.
• How cognitively demanding is the decision?
Capacity is a function of cognitive demand

Likelihood of lacking capacity

What to eat  What treatment  Where to live  Whether to participate in a trial

Cognitive demand
Capacity is a function of cognitive demand

Likelihood of lacking capacity

What to eat | What treatment | Where to live | Whether to participate in a trial

Cognitive demand
Implications for research

• Many individuals with capacity do not understand fundamental principles of research – e.g. randomisation.
• Research participation often places stringent cognitive demands on patients.
• How much information is enough to make an informed choice?
• In most research benefits directly arising from the study are unpredictable.
• Are “soft” benefits of taking part in research part of decision making?
Due to an impairment of, or disturbance in, the functioning of brain or mind ...

- Wide definition – many potential factors which may be allowed
- BUT much of mental capacity framework has been written with the rights of people with stable cognitive impairments in mind – i.e. dementia or learning difficulties.
- In palliative care, dementia is common.
- Many more have softer cognitive impairments which cause confusion but which may be transitory – including delirium, but also cognitive impairment caused by medication (drowsy on opiates), hypoxia and general frailty.
- Pain and distress may cause sufficient distraction to make it difficult to engage in the process of consent.
- Psychiatric disorders, particularly depression.

- Many of these are “silent” – and go under-recognised.
KCH study

Raymont et al, Lancet 2004 364: 1421-7

- Consecutive acute medical in-patients
- Age > 17 years.
- Seen 2-7 days following admission.
- If unconscious or too distressed retry after 24 hours.
- Received MacCAT-T, MMSE and review of clinical records.
KCH Study: Results I
Raymont et al, Lancet 2004 364: 1421-7

• 303 patients recruited
• 76 not interviewed (unconscious / severe cognitive impairment)
• 17 unable to speak English.
• 51 refused
• 159 interviewed
KCH study: results
Raymont et al, Lancet 2004 364: 1421-7

- Mean age 65 years
- 48% male
- 84% white European
- 67% >1 medical diagnosis

Prevalence of incapacity: 42%
Clinical team rating of capacity

*Raymont et al, Lancet 2004 364: 1421-7*

<table>
<thead>
<tr>
<th>Clinical team thought patient had capacity</th>
<th>We thought patient had capacity</th>
<th>We did not think the patient had capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical team thought patient had capacity</td>
<td>107 (100%)</td>
<td>38 (76%)</td>
</tr>
<tr>
<td>Clinical team did not think patient had capacity</td>
<td>0</td>
<td>12 (24%)</td>
</tr>
</tbody>
</table>
Implications for research

• The *presumption of capacity* is a leading principle in MCA. This is particularly relevant in upholding the rights of patients to refuse treatments.

• There are situations where patients with doubtful mental capacity may just “go along” with what health care professionals suggest. This is defensible if they simply assumed mental capacity.

• To what extent is the balance altered in research?

• What duties rests on the researcher to determine that an apparently willing, if frail, patient does, genuinely, have capacity?
Impact of disorders on abilities

<table>
<thead>
<tr>
<th>Four Abilities Model</th>
<th>Mental Capacity Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Understand</td>
<td>• Understand</td>
</tr>
<tr>
<td>• Appreciate</td>
<td>• Retain</td>
</tr>
<tr>
<td>• Reason</td>
<td>• Use and way</td>
</tr>
<tr>
<td>• Express a choice</td>
<td>• Express a choice</td>
</tr>
</tbody>
</table>
Understanding (and retention)

- Appreciation, reasoning, use and weigh
  - yes
  - no → Lacks capacity

- Has capacity
“Bioethicists [and] psychiatrists have assumed that those who are deluded lack capacities required for autonomous choice, and hence that delusion can be assimilated to cases such as dementia and unconsciousness. Yet it is far from clear what capacities are disturbed in the case of delusions.”

Dickenson, D and Fulford, KWM

*In Two Minds: A Casebook of Psychiatric Ethics.* OUP 2000
Dementia

Impaired:
- Memory
- Concentration
- Executive function

Impaired understanding and retention
Schizophrenia

Delusions

Impaired understanding or appreciation?
Depression

Distorted beliefs about self worth

Impaired appreciation?