Cohen-Mansfield Agitation Inventory (CMAI)

Why do we use the CMAI?

The CMAI is used to assess the frequency of manifestations of agitated behaviour in older persons ranging from vocal disruption to overt physical aggression. It has been selected for this Provincial Initiative because it was developed for use in the nursing home, and because it can track the occurrence of a behaviour of interest (target behaviour) as frequently as "several times an hour".

Similar standardized tools that measure behavioural agitation are limited because they track target behaviours to a "ceiling" of "once a day or greater". In other words, most other behavioural tools do not have the sensitivity to identify frequencies of behaviour beyond "daily" occurrences. This limits their usefulness as measures to track improvements in the behavioural profile.

The CMAI is a useful tool because it provides descriptive data so that clinical decisions are based on evidence, not impressions alone (Cohen-Mansfield, 1991; Finkel, Lyons, & Anderson, 1992; Rabinowitz, et al, 2005; Koss, et al, 1997; Miller, Snowdon, & Vaughan, 1995). It replaces opinion with measurable data by:

- Establishing the occurrence of distinct behavioural entities
- Establishing the frequency of the target behaviours
- Categorizing behavioural events so the team is clear about those behaviours that represent RISK and those behaviours that should be accommodated
- Serving as a baseline measure to track change

Psychometric Properties

The CMAI is considered a reliable and valid measurement tool. It is widely reported in the literature as a behavioural indicator to track the outcome of interventions in a variety of studies.

- Reliability -- inter-rater agreement rates reported in the literature ranging from .80 to .92.
- Validity -- Factor analysis revealed the following factors of agitation of aggressive behaviour, physical non-aggressive behaviour, and verbally agitated behaviour. The relationship of agitation to cognitive functioning, depression, and other psychosocial and demographic variables are described in the references.

General information

- The CMAI is a caregivers' rating questionnaire consisting of 29 agitated behaviours each rated on a 7-point scale of frequency; ratings pertain to the two weeks preceding administration.

- Each behaviour represents a group of similar target behaviours that are common in the behavioural profiles of elderly persons living in nursing homes. It is important to

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recognize that it is impossible to include every example of agitation, but each line is intended to capture a group of closely-related behaviours. One should not try to judge if the behaviour can be explained or not, but just rate the frequency at which it actually occurs.

Versions of the CMAI

- Long form (29 behaviours)
- Long form with expanded definitions -- this can be helpful for staff members who are having trouble with understanding the behavioural categories since it gives examples of each grouping of behaviours
- Disruptiveness form -- in this version the disruptiveness of each behaviour is rated along with the frequency

When do we use the CMAI?

- Whenever there is a change of concern in the person's typical behaviour profile
- When attempting to evaluate the impact of a specific intervention on the behaviour profile
- When the clinical team needs an outcome measure to determine if the target behaviour has changed in frequency.

How do we administer the CMAI?

1. Complete the CMAI by summarizing data that is available in the behavioural monitoring records in the person's chart.
2. Education is required to be able to collect the data using information from direct care providers by interviewing them. The best clinical application is to have a discussion with a group of direct care providers using the tool as a focus.
3. If the data is to be used as an outcome measure it must truly reflect where the person is "at" behaviourally. Therefore, co-ordinate the completion of the CMAI using the following process:
4. Read the progress notes.
5. Analyze the person observation record or ABC documentation. (Antecedent -- What happened just before behavioural problem?; Behaviour -- What did person do?; Consequence -- What happened immediately after the behaviour?)
6. Fill out the form as a "draft".

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7. Discuss the frequency/disruptiveness categories with staff familiar with the person, coming to consensus about the responses.

8. Direct evening and night shift staff to complete the CMAI for their shift, using the steps outlined above.

9. Complete the 30th item (other) if there is a distinct behavioural entity that the direct care providers agree is a challenge for them and that they need to monitor more closely.

Principles to keep in mind:

- When interviewing direct care providers or families remember that they know more about the person than you do.

- Explain that completing the CMAI together will ensure that the data is the most accurate reflection of the person's behavioural profile as possible.

- Reassure staff that assigning a "high" frequency score is not a personal criticism of the person, and explain that you are just trying to find out what exactly is going on

- Reassure staff that you are just trying to get them to focus on a very specific time period, and that you want the most recent behavioural events, not what was happening six weeks ago

- If the caregiver is unsure about a certain behaviour, encourage him/her to consult with other informants -- remember, the goal is to achieve the most accurate reflection of the frequency at which these behaviours occurred

How do we interpret the results?

- CAN assist the team to estimate risk that a particular set of behaviours represents, as well as the resources needed to assist with management -- SEVERITY or RISK associated with the behavioural profile can be based on how many of the 29 behaviours are present (ie. the person who displays "hitting, kicking, biting, pushing, throwing" at a level of "several times a day" represents a greater risk than the person who displays only "hitting" at a level of "less than once a week")

- CAN assist with the identification of criteria for transfer/discharge

- CAN assist with evaluating the impact of titrating psychopharmacological interventions up or down

- Should NEVER be considered in isolation of other data; use as a supportive piece to clinical observations

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- Method of quantifying behavioural data -- tells us something about the frequency
- Helps us to focus on those behaviours that represent a RISK and those behaviours that can be ACCOMMODATED.

Those interested in obtaining information on the Cohen-Mansfield Agitation Inventory or ordering such materials should contact: Jiska Cohen-Mansfield, The Research Institute on Aging, Hebrew Home of Greater Washington. 6111 Montrose Rd., Rockville, Maryland 20852. Tel: 301-770-8453 .

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Day Shift ☐
Evening Shift ☐
Night Shift ☐

Cohen-Mansfield Agitation Inventory – Disruptive

Please read each of the 29 agitated behaviours and circle the frequency and disruptiveness of each during the past two weeks.
(definition of disruptiveness: How disturbing it is to staff, other persons, or family members. If disruptive to anyone, rate the highest it is for those for which it disrupts.

FREQUENCY
1 = never
2 = less than once a week
3 = once or twice a week
4 = several times a week
5 = once or twice a day
6 = several times a day
7 = several times an hour
9 = don't know

DISRUPTIVENESS
1 = not at all
2 = a little
3 = moderately
4 = very much
5 = extremely
9 = don't know

	EXPANDED DESCRIPTION	FREQUENCY	DISRUPTIVENESS
1. pacing, aimless wandering	• constantly walking back and forth, does not indicate normal purposeful walk, include wandering when done in a wheelchair	1 2 3 4 5 6 7 9	1 2 3 4 5 9
2. inappropriate dress or disrobing	• putting on too many clothes, putting clothing on in an inappropriate manner, taking off clothing when it is inappropriate (if only genitals are exposed, do not rate; see item #28)	1 2 3 4 5 6 7 9	1 2 3 4 5 9
3. spitting (include at meals)	• do not include salivating of which person has no control	1 2 3 4 5 6 7 9	1 2 3 4 5 9
4. cursing or verbal aggression	• only when using words; swearing, use of obscenity, profanity, verbal anger. Nonverbal will be marked under screaming.	1 2 3 4 5 6 7 9	1 2 3 4 5 9
5. constant unwarranted request for attention or help	• verbal or nonverbal unreasonable nagging, pleading, demanding (indicate also for oriented people)	1 2 3 4 5 6 7 9	1 2 3 4 5 9
6. repetitive sentences or questions	• repeating the same sentence or question one right after the other (do not include complaining – see item #18; even if oriented and even if possibly warranted)	1 2 3 4 5 6 7 9	1 2 3 4 5 9
7. hitting (including self)	• physical abuse, striking others	1 2 3 4 5 6 7 9	1 2 3 4 5 9
8. kicking	• strike forcefully with feet at people or objects	1 2 3 4 5 6 7 9	1 2 3 4 5 9
9. grabbing onto people	• snatching, seizing roughly, taking firmly	1 2 3 4 5 6 7 9	1 2 3 4 5 9
10. pushing	• forcefully thrusting, shoving, moving, putting pressure against	1 2 3 4 5 6 7 9	1 2 3 4 5 9
11. throwing things	• hurl, violently tossing up in air, tipping off surfaces, flinging	1 2 3 4 5 6 7 9	1 2 3 4 5 9
12. making strange noises	• including inappropriate, unwarranted crying, weeping, moaning, weird laughter	1 2 3 4 5 6 7 9	1 2 3 4 5 9
13. screaming	• loud shrill, shouting, piercing howl	1 2 3 4 5 6 7 9	1 2 3 4 5 9

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	EXPANDED DESCRIPTION	FREQUENCY	DISRUPTIVENESS
14. biting	• chomp, gnash, gnaw (people or self)	1 2 3 4 5 6 7 9	1 2 3 4 5 9
15. scratching	• clawing, scraping with fingernails (people or self)	1 2 3 4 5 6 7 9	1 2 3 4 5 9
16. trying to get to a different place	• e.g. out of the building, off the property, sneaking out of room, leaving inappropriately, trying to get out of locked area	1 2 3 4 5 6 7 9	1 2 3 4 5 9
17. intentional falling	• purposefully falling onto floor, include from wheelchair, chair, or bed	1 2 3 4 5 6 7 9	1 2 3 4 5 9
18. complaining	• whining	1 2 3 4 5 6 7 9	1 2 3 4 5 9
19. negativism	• bad attitude, doesn't like anything, nothing is right	1 2 3 4 5 6 7 9	1 2 3 4 5 9
20. eating/drinking inappropriate substances	• putting into mouth and trying to swallow items that are inappropriate	1 2 3 4 5 6 7 9	1 2 3 4 5 9
21. hurt self or other	• burning self or other, cutting self or other, touching self or other with harmful objects etc.	1 2 3 4 5 6 7 9	1 2 3 4 5 9
22. handling things inappropriately	• picking up things that don't belong to them, rummaging, moving furniture, playing with food	1 2 3 4 5 6 7 9	1 2 3 4 5 9
23. hiding things	• putting objects under or behind something	1 2 3 4 5 6 7 9	1 2 3 4 5 9
24. hoarding things	• putting many or inappropriate objects in purse or pockets, keeping too many of an item	1 2 3 4 5 6 7 9	1 2 3 4 5 9
25. tearing things or destroying property	• shredding, ripping, breaking, stomping on something	1 2 3 4 5 6 7 9	1 2 3 4 5 9
26. performing repetitious mannerisms	• tapping, rocking, rubbing, fiddling with something, twiddling with something	1 2 3 4 5 6 7 9	1 2 3 4 5 9
27. making verbal sexual advances	• sexual propositioning, sexual innuendo or "dirty talk"	1 2 3 4 5 6 7 9	1 2 3 4 5 9
28. making physical sexual advances or exposing genitals	• touching a person in an inappropriate sexual way, rubbing genital area	1 2 3 4 5 6 7 9	1 2 3 4 5 9
29. general restlessness	• fidgeting, always moving around in seat, getting up and sitting down, inability to sit still	1 2 3 4 5 6 7 9	1 2 3 4 5 9
30. other :	• other inappropriate behaviour: describe	1 2 3 4 5 6 7 9	1 2 3 4 5 9
	Is the person agitated in your opinion?	1 – yes, 2 – no	

Signature_____ Date:_____

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