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VERSION 1
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CCI-6D User Guide

Basic information on how to use the CCI-6D instrument

Consumer Choice Index - 6 Dimension:

A new instrument for measuring the quality of care in aged care service provision from the perspective of consumers.

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Request to notify us of use:

The authors would be interested in hearing how the instrument is being applied for care quality evaluation in research and industry settings. Please let us know the details: rachel.milte@flinders.edu.au



Introduction

This guide has been developed to provide users with background information and basic guidance for using the Consumer Choice Index - 6 Dimension instrument (CCI-6D). It provides information relevant to the administration of the instrument, general principals, definitions and background reading on the CCI-6D instrument and information about how to present the results.

The CCI-6D is a new instrument, designed specifically to evaluate the quality of care in long-term aged care facilities from a consumer perspective.

The CCI-6D instrument is comprised of six questions based on the following five themes for consumers:

1. choice, freedom and self-determination
2. meaningful activities
3. feeling useful and valued
4. individualised care
5. home-like spaces.

Each question has three levels moving from a low level of performance for that theme to a high level of performance.

The respondent is asked to indicate his/her perception of the quality of care in their residential aged care facility by ticking in the box against the most appropriate statement in each of the six questions to describe their current care situation. This information can then be used as a quantitative measure of quality of care in the facility as judged by the individual respondents.

Background

In 2015 and 2016, Flinders University researchers undertook a survey of residents living in long-term aged care facilities in Australia, which included data collected face-to-face from individual residents, their family members, and staff members and records of the facility (Milte et al. 2017b). Traditionally, there has been limited choice and flexibility in long-term care in aged care homes, despite the fact that there is growing evidence that it can be provided sustainably, and can result in positive outcomes for residents.

Efforts to measure quality of care in aged care homes have previously focussed heavily on measures of clinical outcomes or processes of care and have been measured using the perspectives of staff or independent assessors, not the consumers themselves. However, it is increasingly important to evaluate aged care services from the perspective of the consumers themselves.

To identify characteristics of good quality care to include in the CCI-6D, the researchers were informed by a review of the literature, interviews with people with dementia and their family members, consultation with researchers, industry and consumer representatives (Milte et al. 2016). This resulted in the identification of six key characteristics reflective of good care, which were assembled into an instrument. The characteristics were the extent to which:

- (i) formal caregivers were able to spend enough time attending to individual needs (Care Time),
- (ii) the shared spaces of the facility were home-like and non-institutional (Shared Spaces),
- (iii) the individual rooms of the facility were home-like and non-institutional (Own Room),
- (iv) there was choice for residents in their access to outside and gardens (Outside and Gardens),
- (v) there was access to meaningful activities individualised for the resident (Meaningful Activities), and
- (vi) there was flexibility in the time that care activities and routines were undertaken (Care Flexibility).

For a newly developed instrument such as this, it was important to evaluate whether the instrument measures what was originally intended – in this case: quality of care. Researchers used the CCI-6D to ask residents (or their family members) living in aged care homes about the level of choice, flexibility and quality of care, and compared the results with existing related instruments and measures of care to show that the CCI-6D is accurate and could be used in residential care settings to determine quality with respect to care time, homelikeness of shared spaces and own room, access to outside and gardens, meaningful activities and flexibility in care routines (Milte et al. 2017a and b).

Use of the CCI-6D

Scope

The CCI-6D is a new instrument designed specifically to capture information and evaluate the performance of long-term residential care institutions (such as nursing homes or aged care homes) across six key dimensions of quality of care that are important to consumers. The instrument is designed to be administered with residents themselves and can be used with residents who have no or mild cognitive impairment. Alternatively, it can be used with an informal carer who knows the resident well (such as a family member who visits regularly) where the resident is unable to answer on their own behalf. Ideally the informal carer should answer based on their knowledge of the resident and the care provided to them.

Use of the CCI-6D

Use of the CCI-6D for non-commercial purposes is free. By using the CCI-6D you are agreeing not to alter the tools without permission from the development team and will ensure that any use of the CCI-6D tools in your research is acknowledged by referencing this document or the research publication in the following way:

Milte, R, Ratcliffe, J, Bradley, C, Shulver, W, Bilton, R and Crotty, M. (2017) CCI-6D User Guide: Basic information on how to use the CCI-6D instrument. Flinders University and the NHMRC Cognitive Decline Partnership Centre, Adelaide, South Australia.

Instructions for administration of the CCI-6D instrument

Pre-Interview:

You will need:

- A copy of the CCI-6D instrument for each interviewee and cards with each question and responses listed in large font.
- Blue or black pen.
- A quiet space, without distractions to conduct the interview. Check with the participant that they are comfortable and are happy to participate prior to commencing.
- Formal consent should be sought from the participant prior to commencing the interview if required.

Interview Technique:

- If a family member or informal carer attends or undertakes the interview on behalf of the resident, explain that you are interested in the care provided for their family member in their current residential facility.
- Explain that you will ask some questions about how they feel about things that happen each day in their residential aged care home. For example, how at home they feel in shared spaces or whether they feel outside and garden areas are easily accessible.
- For family members or carers answering the questionnaire, explain we are interested in their perception of the care being provided to their family member in the facility recently (i.e. the past few weeks). Explain to participants that we are interested in their opinion and there are no right or wrong answers. Remind them that all responses will be kept confidential, and give the opportunity to ask any final questions.
- To administer the CCI-6D, show the participant the large font question and response card (as appropriate, considering language and visual impairments).

- Instruct participants to “Please answer these questions on how you feel about the care you (or your family member) are receiving in this facility over the past few weeks. Please tick only one option for each of the six questions below”.
- Read each question as listed on the card in full. All questions should be presented to each person in a similar manner, as paraphrasing the questions could introduce bias. Ask the participant which options they would choose out of those listed, indicating them on the large font card.
- Give participants time to think and respond. If they do not respond, read the question again and ask for their response.
- Mark participant responses on the questionnaire sheet (one response per question only). If participants become stuck on a question, go to the next question. Return to any missed questions once the other questions are completed, to give the participant another chance to answer them.
- If participants have difficulty answering questions, employ one of the techniques below:
 - If participants answer ‘yes’ or ‘no’, or respond using their own phrase of words, repeat the question verbatim including all potential responses and ask them to choose one of those three responses. It may be helpful to point out the potential responses in turn on the large front card. Give them time to consider their response, and explain again if needed. If they are unable, record the response as missing.
 - If participants give two responses, encourage them to choose only one if able. If they are unable to choose, record the response as missing.
 - If participants are unable or refuse to answer a question for any reason, mark the response as missing and move to the next question.
- It is important to respect the participants’ right not to answer, and cease the interview at any time if they no longer wish to participate.

Ending the interview

- Thank the participant for their time, and explain that all the questions have now been answered.
- Ask the participant if they have any final questions, and answer these.

Participants may want to know how they went on the questionnaire, or what their answers mean. Reiterate that we are grateful for their participation, and that their answers have been very helpful, as we are interested in their opinion. Highlight that you use this questionnaire with the same questions to talk to many people, and that you combine everyone’s responses together to get a picture of what they think the aged care home is like overall.

Scoring of the CCI-6D

The CCI-6D should be scored as follows:

ASSESSOR ID <input type="text"/> <input type="text"/> <input type="text"/>	DATE OF SURVEY <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>	STUDY ID <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
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Consumer Choice Index - 6 Dimension Instrument

Please answer these questions on how you feel about the care you (or your family member) are receiving in this facility over the past few weeks. (Please tick one option from the 6 questions below)

1. How much time are caregiving staff able to spend with me (or my family member)?

Care staff are always able to spend enough time attending to my individual needs
 Care staff are sometimes able to spend enough time attending to my individual needs
 Care staff are rarely able to spend enough time attending to my individual needs

2. Do the shared spaces of the aged care home as a whole make you (or your family member) feel 'at home'?

I feel very at home here
 I feel at home here sometimes
 I feel at home here rarely

3. Does your own room here make you (or your family member) feel 'at home'?

I feel very at home in my room
 I feel at home in my room sometimes
 I feel at home in my room rarely

4. Is there access to outside and gardens in this aged care home?

I can outside whenever I want
 I can get outside sometimes
 I cannot get outside easily

5. How often does the facility offer me (or my family member) things to do that make me feel valued?

I can do things that make me feel valued often
 I can sometimes do things that make me feel valued
 I can only rarely or occasionally do things that make me feel valued

6. How flexible is the aged care home with the care routines (e.g. when you or your family member gets out of bed, shower, eat your meals)

Care routines are very flexible. The aged care home is very happy to change the times they provide help if I require it
 There is a little flexibility in the care routines. The aged care home sometimes changes the times they provide care if I ask for it
 There is not much flexibility in the care routines. Care and assistance seems to occur when it most suits the aged care home

Perceived quality of care levels are coded as follows:

- Qn 1 is coded as '3'

 Qn 2 is coded as '2'

 Qn 3 is coded as '1'

NB: There should be only one response for each question.

Ambiguous or missing values

Ambiguous responses (e.g. 2 boxes are ticked for a single dimension) should be treated as missing values. Where less than 50% of values missing, these can be coded as the average for the other responses. Otherwise, code missing values as 9.

Data collected using the CCI-6D can be entered into a database according to the following schema:

Variable name	ID	Time with person	Shared spaces	Personal room	Garden/ outside accessibility	Feeling valued	Routine flexibility
Variable description	Person ID number	3 = always able to 2 = some-times able to 1 = rarely able to 9 = missing value	3 = very 2 = some times 1 = rarely 9 = missing value	3 = very 2 = some-times 1 = rarely 9 = missing value	3 = always easily able to 2 = some-times able to 1 = unable to easily 9 = missing value	3 = often able to 2 = some-times able to 1 = rarely or occasionally able to 9 = missing value	3 = very flexible 2 = some-times flexible 1 = not much flexibility 9 = missing value
Respondent 1	1001	1	2	1	3	2	3
Respondent 2	1002	2	1	3	9	1	1

These data can be presented as frequencies of responses across each item.



Use of the algorithm

To score the CCI-6D, a set of weighted scores, based on the preferences of people living in residential aged care and their family member carers, has been developed (Milte et al. 2017b).

Table 1 shows the scoring weights for each of the six items. Two scoring algorithms are available: one based on the responses of a sample of people living in residential aged care, and a sample of family member carers.

These weighted scores have been developed such that higher scores are indicative of better quality of care, and lower scores indicate lower quality care. The scores have been developed on a scale of 0 to 1, such that a score of 1 for the 6 items indicates the best quality aged care home, and a score of 0 across the 6 items represents the poorest quality aged care home.

Table 1: Preference weighted scoring based on resident or family member preferences for items of the CCI-6D

	RESIDENT	FAMILY
How much time are care staff able to spend with me (or my family member)		
Always	0.149	0.219
Sometimes	0.106	0.121
Rarely	0.002	-0.081
Do your (or your family member) feel 'at home' in the shared spaces in this place?		
Always	0.146	0.166
Sometimes	0.085	0.078
Rarely	0.025	0.015
Is your own room here set up to make you (or your family member) feel 'at home'?		
Always	0.228	0.214
Sometimes	0.077	0.089
Rarely	-0.048	-0.043
Is there access to outside and gardens in this aged care home?		
Whenever they want	0.186	0.094
Sometimes	0.114	0.132
Cannot	-0.043	0.033
How often does the aged care home offer me (or my family member) things to do that make me feel valued?		
Often	0.120	0.116
Sometimes	0.103	0.106
Rarely	0.034	0.037
How flexible are staff with the care routines?		
Very	0.172	0.153
A little	0.056	0.069
Not much	0.029	0.038

The scoring is summative, i.e. as an example based on the resident weighted scores, an aged care home rated as shown in Table 2 would have a total sum score of 0.650

Table 2: Example of CCI-6D scoring using resident weighted scoring algorithm

Item	Coefficient
Care staff are rarely able to spend enough time with residents	0.002
Feel at home in shared spaces sometimes	0.085
Feel at home in their own room always	0.228
Have access to outside whenever they want	0.186
Able to do activities that make them feel valued often	0.120
Not much flexibility in the care routines	0.029
Total sum score	0.650

Either the resident or family member preference weighted scores are able to be used in this way. Regarding which set of weighted scores to use, we recommend use of the resident algorithm in most cases, as the service users. However, we encourage potential users to use both or to select the algorithm which they consider best meets the aims of their evaluation.

For example, in some situations the perspective of family members of residents with more severe cognitive impairment may be considered as particularly important, and thus the algorithm based on the family member preferences may be used preferentially.



References

- Milte, R, Shulver, W, Killington, M, Bradley, C, Ratcliffe, J and Crotty, M. (2016) Quality in residential care from the perspective of people living with dementia: The importance of personhood. *Archives of Gerontology and Geriatrics* 63: 9–17
- Milte, R, Ratcliffe, J, Bradley, C, Shulver, W, and Crotty, M. (2017a) Evaluating the quality of care received in long-term care facilities from a consumer perspective: development and construct validity of the Consumer Choice Index – Six Dimension instrument. *Ageing & Society*. 1-23. doi:10.1017/S0144686X17000861
- Milte R, Ratcliffe J, Chen G, & Crotty M. 'What characteristics of nursing homes are most valued by consumers? (2017b) A discrete choice experiment with residents and family members', *Value in Health*. Accepted.

Appendix: CCI-6D Instrument

ASSESSOR ID

DATE OF SURVEY

 / /

STUDY ID

Consumer Choice Index - 6 Dimension Instrument

Please answer these questions on how you feel about the care you (or your family member) are receiving in this facility over the past few weeks. (Please tick one option from the 6 questions below)

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2. Do the shared spaces of the aged care home as a whole make you (or your family member) feel 'at home'?

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3. Does your own room here make you (or your family member) feel 'at home'?

- I feel very at home in my room
- I feel at home in my room sometimes
- I feel at home in my room rarely

4. Is there access to outside and gardens in this aged care home?

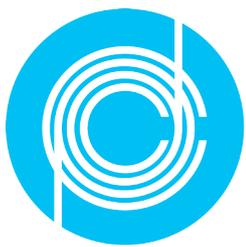
- I can outside whenever I want
- I can get outside sometimes
- I cannot get outside easily

5. How often does the facility offer me (or my family member) things to do that make me feel valued?

- I can do things that make me feel valued often
- I can sometimes do things that make me feel valued
- I can only rarely or occasionally do things that make me feel valued

6. How flexible is the aged care home with the care routines (e.g. when you or your family member gets out of bed, shower, eat your meals)

- Care routines are very flexible. The aged care home is very happy to change the times they provide help if I require it
- There is a little flexibility in the care routines. The aged care home sometimes changes the times they provide care if I ask for it
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