AMHOCN

Australian Mental Health Outcomes & Classification Network

'Sharing Information to Improve Outcomes'

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Health of the Nation Outcome Scales: Clinical Significance Survey

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What is Australian Mental Health Outcomes and Classification Network?

The Australian Mental Health Outcomes and Classification Network (AMHOCN) was established by the Australian Government in December 2003 to provide leadership to the mental health sector to support the sustainable implementation of the outcomes and casemix collection as part of routine clinical practice. It aims to support states and territories and to work collaboratively with the mental health sector to achieve the vision of the introduction of outcomes and casemix measures. AMHOCN consists of three components: a data bureau responsible for receiving and processing information; an analysis and reporting component providing analysis and reports of submitted data; and a training and service development component supporting training in the measures and their use for clinical practice, service management and development purposes. Currently, the Australian Government has contracted the following organisations to undertake these roles: Strategic Data Pty Ltd, (data bureau); The University of Queensland (analysis and reporting); The NSW Institute of Psychiatry (training and service development). In February 2005, an AMHOCN State Liaison Manager role was established to coordinate activities between the state and territory health authorities and the AMHOCN components. The Australian Government has contracted Allen Morris-Yates to undertake that role. Further information regarding AMHOCN can be found at http://www.mhnocc.org.

Acknowledgments

This report has been prepared by Philip Burgess, Tom Trauer. Tim Coombs, Rod McKay & Jane Pirkis.

This report is based on the extensive work undertaken by many people working in Australia's public mental health services, including consumers, carers, clinicians, service managers, who are implementing an outcomes focus within their local services. Our acknowledgment is extended to all these individuals. Acknowledgement is also made of the efforts by staff within the various mental health branches in each state and territory health department who have coordinated the data collections and reporting arrangements.

Feedback

Comments on the document are welcomed. Readers are encouraged to submit comments via the on-line NOCC forum at http://www.mhnocc.org/ Alternatively, comments can be forwarded to:

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Section 1: Background and context

There has been some discussion among clinicians as well as other stakeholders (e.g., consumers, carers, managers and policy makers) regarding the definition of 'clinical significance' as it applies to the Health of the Nation Outcomes Scales.

The concept of clinical significance was introduced as a training aid to help clinicians arrive at an appropriate rating when it could not be readily derived from the HoNOS glossaries. For example AMHOCN training materials advise clinicians:

> *When rating the HoNOS clinicians are encouraged to read the glossary to inform their rating decisions however as a rule of thumb a rating of a 0 or 1 is not seen as clinically significant, that does not require active monitoring or intervention. A rating of a 2, 3 or 4 however does indicate a clinically significant problem that the clinician believes requires active monitoring and intervention.*

There is, however, little information in the available research literature that helps us determine the validity of 'clinically significant' ratings.

Following various discussions with the National Mental Health Performance Sub-Committee (NMHPSC) and the Child & Adolescent, Adult and Older Persons Mental Health Outcomes Experts Groups, the Australian Mental Health Outcomes and Classification Network (AMHOCN) undertook to investigate these matters,

To get a better understanding of 'clinical significance', AMHOCN surveyed members of the Adult, Older Persons and Child & Adolescent Mental Health Expert Groups as well as members of the National Mental Health Benchmarking Forums.

The HoNOS Clinical Significance Survey (HoNOS – CSS) was designed by AMHOCN partners, specifically Professor Philip Burgess and A/Professor Jane Pirkis (AMHOCN Analysis & Reporting), Mr Tim Coombs (AMHOCN Training & Service Development) and Dr Rod McKay, Chair of the Older Persons Mental Health Outcomes Expert Group. A web-based survey was implemented and managed by the AMHOCN Data Bureau.

Professor Tom Trauer, an internationally recognised expert on the HoNOS measures, was subsequently contracted by AMHOCN to prepare this report summarising the key findings of the HoNOS-CSS.

Comments regarding this report can be directed to AMHOCN at amhocn@mhnocc.org .

Section 2: Invitations & respondent characteristics

Invitations

Personal invitations were made by email to 144 persons who were members of one or more of the following bodies:

- Child & Adolescent Mental Health Outcomes Expert Group
- Adult Mental Health Outcomes Expert Group
- Older Persons Mental Health Outcomes Expert Group
- Child & Adolescent Mental Health Service Benchmarking Forum
- Adult Mental Health Service Benchmarking Forum
- Older Persons Mental Health Service Benchmarking Forum
- Forensic Mental Health Service Benchmarking Forum

These are the three Mental Health Expert Groups, the corresponding three Mental Health Service Benchmarking Forums, plus the Forensic Mental Health Benchmarking Forum.

130 invitees were associated with only one of the above bodies, 11 with two, and 3 with three. In most cases where an invitee belonged to two bodies, they were of the same age group (e.g. Child & Adolescent MHOEG and Child & Adolescent MHSBF). Therefore most invitees could be associated with a single age group. The following Table shows the age groups that invitees were associated with.

Age Group	N	%
Child & Adolescent	30	20.8
Adult	52	36.1
Older Persons	25	17.4
Forensic	32	22.2
More than one of the above	5	3.5
	144	100.0

Responses

In response to the 144 invitations, 126 responses were received. Of these, 5 were identified as 'test' cases, 13 respondents did not specify their target population, and 14 had unacceptably high numbers of missing responses, leaving 94.

The 94 usable responses represent an overall effective response rate of 65.3%. The first question of the survey asked respondents to indicate which age group they mainly worked with clinically. 15 responded Child & Adolescent, 54 Adult, and 25 Older Persons. Assuming that Forensic equates with Adult, and ignoring the 5 invitees who were associated with more than one age group, this gives response rates of 15/30 (50%) in Child & Adolescent, 54/84 (64%) in Adult/Forensic, and 25/25 (100%) in Older Persons.

Respondent characteristics

The first section of the survey asked some questions about the respondent. This allows us to characterize the sample.

Group membership

Respondents were asked which Expert Groups or Benchmarking Forums they belonged to. Multiple responses were allowed. Eight belonged to the Child & Adolescent Expert Group or Forum (2 to both), 28 belonged to the Adult Expert Group or Forum (1 to both), 13 belonged to the Older Person Expert Group or Forum (1 to both), and 7 belonged to the Forensic Forum. Strangely, 41 did not indicate membership of any of the seven groups. These numbers sum to more than 94 because there were a few respondents who indicated cross-age-group memberships.

Ongoing clinical responsibilities

67 (71.3%) said they had ongoing clinical responsibilities, 27 (28.7%) said they hadn't.

Proportion of working week in clinical work

Of the 67 who said they had ongoing clinical responsibilities on the previous question, 18 (27.9%) said clinical work was less than 20% of their time, 9 (13.4%) said 20% to 40%, 14 (20.9%) said 41% to 60%, 17 (25.4%) said 61% to 80%, and 9 (13.4%) said more than 80%. Inconsistently, two respondents who had indicated on the previous question that they did not have clinical responsibilities said on this question that they spent 20% to 40% of their week on clinical work.

Main clinical work setting

20 (21.3%) inpatient, 10 (10.6%) community residential, 50 (53.2%) ambulatory, and 14 (14.9%) other/not applicable.

Main professional background

49 (52.1%) nurses, 14 (14.9%) psychologists, 11 (11.7%) psychiatrists, 10 (10.6%) social workers, 7 (7.4%) occupational therapists, and 3 others.

Years worked in mental health sector

10 (10.6%) five years or less, 10 (10.6%) six to ten years, 21 (22.3%) eleven to fifteen years, and 53 (56.4%) more than fifteen years.

Ever received training in how to rate the HoNOSCA/HoNOS/HoNOS65+

The overwhelming majority of respondents (88, 93.6%) had received training.

Provide training in HoNOSCA/HoNOS/HoNOS65+ to other clinicians

48 (51.1%) said yes, 45 (47.9%) no, and one did not specify.

How many HoNOSCA/HoNOS/HoNOS65+ratings completed in last month

39 (41.5%) said none, 28 (29.8%) said one to five, 12 (12.8%) said six to ten, 8 (8.5%) said eleven to fifteen, 6 (6.4%) said over fifteen, and one did not specify.

Section 3: Survey design & analysis strategy

Survey design

After the respondent characteristics section, the survey proper begins. Questions presented are according to an early question asking which consumer age group the respondent mainly works with. Those who answered Adult were then only asked questions relating to the HoNOS, those answering Child & Adolescent were only asked questions about the HoNOSCA, and those answering Older Person were only asked questions about the HoNOS65+.

Within each of these instrument streams, respondents were asked several sets of questions:

What rating on each item represented a clinically significant problem?
What is the relative importance of each item in determining overall clinical severity?
Which items would not be expected to improve between?
> Admission and Review
> Admission and Discharge
> Review and Review
> Review and Discharge,
What additional factors, not captured by the HoNOS/CA/65+ are important?

All of the above questions are presented twice, first for Acute inpatient care, and second for Ambulatory care.

Strategy for analysis

There are several ways to analyse the survey responses. At the highest level, we treated the three instruments separately. Anticipating that there will be a degree of concordance between responses between acute inpatient and ambulatory, we analysed these side-by-side within each of the question sets. Results across instruments, settings, and response sets are compared and contrasted impressionistically in a final section.

Section 4: Findings regarding the HoNOSCA

Clinical significance

HoNOSCA	Acute inpatient (n = 12)			Ambulatory (n = 12)		
item	Mode	Median	Mean	Mode	Median	Mean
1	2	2	2.3	2	2	2.1
2	3	3	2.5	3	2.5	2.3
3	2	2	1.9	2	2	1.6
4	2	2	2.0	2	2	1.8
5	2/3	2.5	2.5	2	2	2.3
6	2	2	2.3	2	2	2.2
7	2	2	2.2	2	2	1.8
8	2	2	2.4	2	2	2.1
9	2	2.5	2.7	2/3	2	2.3
10	2	2.5	2.6	2	2	2.3
11	2	2	2.6	2	2	2.4
12	2	2	2.4	2	2	2.1
13	1/2/3	3	2.6	1/2/3	2	2.0
14	2	2	2.3	2	2	2.1
15	2	2	2.3	2	2	2.2

The results of the "clinical significance" questions for the HoNOSCA cluster around the level 2 (mild problem). There were 12 non-missing responses for the acute inpatient questions, and 12 for the ambulatory questions. Generally higher ratings were made for item 2 (overactive/attention/concentration) (mode 3 (moderate) and medians of 2.5 and 3). The mean clinical thresholds were consistently, but only slightly, higher in the acute inpatient setting than in ambulatory.

Importance

HoNOSCA	% saying important or very important	
item	Acute inpatient (n=13-14)	Ambulatory (n = 10-11)
1	92.9	100
2	57.1	81.8
3	92.3	100
4	92.3	100
5	46.2	72.7
6	76.9	72.7
7	100	100
8	92.3	91.9
9	100	100
10	84.6	91.9
11	76.9	81.8
12	100	100
13	66.7	100
14	84.6	90.0
15	76.9	91.9

The results of the "importance" questions for the HoNOSCA are fairly consistent. There were 13 to 14 non-missing responses for the acute inpatient questions, and 10 to 11 for the ambulatory questions. In acute inpatient settings most items were considered important to very important, but there were a few exceptions. Item 2 (overactivity/attention/concentration), item 5 (scholastic and language) and item 13 (school attendance) were considered of lesser importance. In ambulatory settings, all items were considered important to very important by 73% to 100% of respondents.

Expectation of improvement

In the following table, A, R and D stand for Admission, Review and Discharge respectively.

| | % not expecting improvement on HoNOSCA item | | | | | | | | |
| | Acute inpatient | | | | Ambulatory | | | | |
	A-R	A-D	R-R	R-D	A-R	A-D	R-R	R-D	Mean
1	20.0	6.7	6.7	6.7	20.0	0	0	6.7	8.4
2	20.0	13.3	6.7	0	6.7	0	0	0	5.8
3	0	0	6.7	0	6.7	0	0	0	1.7
4	20.0	0	0	6.7	20.0	0	0	0	5.8
5	40.0	26.7	20.0	13.3	40.0	20.0	20.0	6.7	23.3
6	40.0	40.0	26.7	33.3	33.3	20.0	13.3	13.3	27.5
7	20.0	0	0	6.7	13.3	0	6.7	0	5.8
8	20.0	0	6.7	0	20.0	0	0	0	5.8
9	33.3	0	0	0	13.3	0	0	0	5.8
10	33.3	40.0	20.0	26.7	20.0	13.3	0	6.7	20.0
11	20.0	0	6.7	13.3	6.7	0	6.7	6.7	7.5
12	33.3	13.3	13.3	6.7	20.0	6.7	0	0	11.7
13	26.7	6.7	20.0	6.7	20.0	0	6.7	0	10.8
14	13.3	13.3	20.0	13.3	6.7	6.7	0	6.7	10.0
15	20.0	13.3	20.0	13.3	6.7	6.7	0	6.7	10.8
Mean	24.0	11.6	11.6	9.8	16.9	4.9	3.6	3.6	10.7

15 respondents answered these questions. Across all pairs of collection occasions and both settings, a minority of respondents did not expect improvement. Across all pairs of collection occasions, the items on which there is least expectation of improvement were the Impairment items (5 and 6) and item 10 (Problems with peer relationships). On average and across both settings and all pairs of collection occasions, less than 9% did not expect improvement on the Behaviour items, and 6% did not expect improvement on the Symptom items. In both acute inpatient and ambulatory settings, the least improvement was expected between Admission and Review, with much greater improvement expected between all other pairs of collection occasions.

Additional factors

Respondents were asked to nominate up to ten factors not captured by the HoNOS that needed to be considered in an episode of mental illness. Each nomination was to be rated in importance. Among the child and adolescent respondents, a total of 9 factors were nominated for acute inpatient care and 9 for ambulatory care. Most factors were mentioned only once. Several factors were nominated identically under both acute inpatient and ambulatory care. Given the small number of respondents and limited number of nominations, there were few repeated themes. The factors that were mentioned were: developmental history, medication regime, accommodation issues, insight and motivation, psychosocial issues, duration of symptoms, problems with significant other, determinants of health, stressors, willingness of client to seek support, educational supports, involvement of other agencies, and family attitudes. It was not judged worthwhile to analyse the associated importance ratings.

Section 5: Findings regarding the HoNOS

Clinical significance

HoNOS	Acute inpatient (n = 44)			Ambulatory (n = 35)		
item	Mode	Median	Mean	Mode	Median	Mean
1	3	2	2.3	2	2	2.1
2	2	2	2.3	2	2	2.3
3	2	2	2.4	2	2	2.3
4	2	2	2.4	2	2	2.1
5	2	2	2.1	2	2	2.2
6	2	2	2.3	2	2	2.3
7	2	2	2.4	2	2	2.3
8	2	2	2.3	2	2	2.2
9	2	2	2.4	2	2	2.2
10	2	2	2.3	2	2	2.2
11	2	2	2.2	2	2	2.1
12	2	2	2.2	2	2	2.2

The results of the "clinical significance" questions for the HoNOS are very consistent. There were 45 non-missing responses for the acute inpatient questions, and 35 for the ambulatory questions. The mean and the mode for all 12 questions in both settings were 2, except for item 1 (aggressive, etc behaviour) in inpatient settings, where the mode (by a margin of 1) was 3. The means are all very consistently between 2.1 and 2.4.

Importance

HoNOS	% saying important or very important	
item	Acute inpatient (n = 44)	Ambulatory (n = 35)
1	100	100
2	100	100
3	97.7	100
4	90.9	97.1
5	90.9	77.1
6	81.4	100
7	97.7	100
8	93.2	97.1
9	88.6	91.4
10	84.1	91.4
11	79.1	88.6
12	74.1	80.0

The results of the "importance" questions for the HoNOS are fairly consistent. There were 44 non-missing responses for the acute inpatient questions, and 35 for the ambulatory questions. All HoNOS items were considered important to very important in acute inpatient and ambulatory settings by three-quarters to all of the respondents.

Expectation of improvement

	% not expecting improvement on HoNOS item								
	Acute inpatient				Ambulatory				
	A-R	A-D	R-R	R-D	A-R	A-D	R-R	R-D	Mean
1	5.6	1.9	1.9	3.7	9.3	0	0	3.7	3.3
2	3.7	3.7	13.0	5.6	3.7	1.9	7.4	3.7	5.3
3	9.3	11.1	13.0	5.6	14.8	3.7	7.4	3.7	8.6
4	14.8	22.2	13.0	13.0	20.4	13.0	18.5	11.1	15.8
5	20.4	20.4	14.8	11.1	20.4	20.4	13.0	14.8	16.9
6	1.8	1.9	3.7	3.7	3.7	1.9	1.9	5.6	3.0
7	3.7	1.9	3.7	1.9	9.3	0	3.7	3.7	3.5
8	7.4	5.6	3.7	2.7	5.6	5.6	3.7	1.8	4.5
9	24.1	29.6	22.2	18.5	25.9	14.8	16.7	11.1	20.4
10	24.1	16.7	11.1	9.3	18.5	7.4	14.8	7.4	13.7
11	31.5	31.5	27.8	18.5	16.7	13.0	18.5	7.4	20.6
12	27.8	42.6	25.9	22.2	24.1	16.7	14.8	11.1	23.2
Mean	14.5	15.8	12.8	9.6	14.4	8.2	10.0	7.1	11.6

54 respondents answered these questions. Across all pairs of collection occasions and both settings, a minority of respondents did not expect improvement. Across all pairs of collection occasions, the items on which there is least expectation of improvement were the Impairment items (4 and 5) and the Social items (9 to 12). On average and across both settings and all pairs of collection occasions, less than 9% did not expect improvement on the Behaviour items, and less than 5% did not expect improvement on the Symptom items. In acute inpatient settings, the least improvement was expected between Admission and Discharge, with somewhat greater improvement expected between the other pairs of collection occasions. In ambulatory settings, however, the least improvement was between Admission and Review, with much greater improvement expected between the other pairs of collection occasions.

Additional factors

Among the adult respondents, total of 41 factors were nominated for acute inpatient care and 46 for ambulatory care. Many factors were mentioned only once, and some were unclear. Many factors were nominated identically under both acute inpatient and ambulatory care. Allowing for variations in wording, and grouping common themes, the most frequently mentioned factors were insight, accommodation, finances, medication and general compliance, and family factors and supports. As with the corresponding HoNOSCA data, was not judged worthwhile to analyse the associated importance ratings.

Section 6: Findings regarding the HoNOS65+

Clinical significance

HoNOS65+	Acute inpatient (n = 17)			Ambulatory (n = 16)		
item	Mode	Median	Mean	Mode	Median	Mean
1	2	2	2.0	2	2	1.9
2	2	2	1.7	2	2	1.6
3	2	2	2.2	2	2	1.9
4	2	2	2.1	2	2	2.1
5	2	2	2.3	2	2	2.2
6	2	2	2.0	2	2	1.9
7	2	2	2.1	2	2	1.9
8	2	2	2.3	2	2	2.0
9	2	2	2.3	2	2	2.0
10	2	2	2.0	2	2	2.3
11	2	2	2.0	2	2	2.1
12	2	2	2.0	2	2	2.1

The results of the "clinical significance" questions for the HoNOS65+ cluster around the level 2 (mild problem). There were 17 non-missing responses for most of the acute inpatient questions, and 16 for most of the ambulatory questions. All medians and modes were 2, and the mean ratings clustered around 2, ranging from 1.6 to 2.3.

Importance

HoNOS65+	% saying important or very important	
item	Acute inpatient (n = 20)	Ambulatory (n = 18)
1	100	100
2	100	100
3	90.0	94.4
4	94.7	83.3
5	85.0	88.9
6	100	100
7	100	100
8	100	100
9	85.0	100
10	95.0	82.4
11	95.0	88.9
12	79.0	94.4

The results of the "importance" questions for the HoNOS are fairly consistent. There were up to 20 non-missing responses for the acute inpatient questions, and up to 18 for the ambulatory questions. In both settings, all items were considered important to very important by 79% to all of the respondents.

Expectation of improvement

	% not expecting improvement on HoNOS65+ item								
	Acute inpatient				Ambulatory				
	A-R	A-D	R-R	R-D	A-R	A-D	R-R	R-D	Mean
1	16	4	8	12	28	28	8	12	14.5
2	12	4	16	12	24	24	16	8	14.5
3	16	12	16	12	28	28	16	8	17.0
4	32	40	32	36	32	32	40	32	34.5
5	24	36	28	28	20	20	32	24	26.5
6	16	4	12	8	20	20	8	16	13.0
7	16	12	16	8	16	16	8	12	13.0
8	16	8	12	12	12	12	8	12	11.5
9	36	24	28	20	28	28	28	16	26.0
10	20	24	36	24	24	24	28	16	24.5
11	16	20	24	16	12	12	12	12	15.5
12	16	16	28	24	16	16	24	16	19.5
Mean	19.7	17.0	21.3	17.7	21.7	21.7	19.0	15.3	19.2

25 respondents answered these questions. Across all pairs of collection occasions and both settings, a minority of respondents did not expect improvement. Across all pairs of collection occasions, the items on which there is least expectation of improvement were the Impairment items (4 and 5) and items 9 (problems with relationships) and 10 (activities of daily living). On average and across both settings and all pairs of collection occasions, up to 17% did not expect improvement on the Behaviour items, and up to 13% did not expect improvement on the Symptom items. In both acute inpatient and ambulatory settings, there was little difference in the amount of expected improvement between the four pairs of collection occasions.

Additional factors

Among the Older Person respondents, total of 25 factors were nominated for acute inpatient care and 23 for ambulatory care. Most factors were mentioned only once. Several factors were nominated identically under both acute inpatient and ambulatory care. There were few repeated themes. The factors that were mentioned were: medication adherence, grief and loss, anxiety, carer burden, falls, role satisfaction, mania, insight, supports, self-management, eating and diet, residing alone, isolation, and finances. As with the corresponding HoNOS and HoNOSCA data, it was not judged worthwhile to analyse the associated importance ratings.

Section 7: Interpretation & commentary

While 121, or 84%, of invitees responded to the questionnaire, thirteen did not specify their target group and fourteen omitted many questions, leaving 94 usable responses, and lowering the effective response rate to 65%. Given that the respondents were voluntary members of high-level outcomes-related committees, the response rate is disappointing. It is mildly interesting that the response rate was 100% for Older Person people, 64% for adult (including forensic), and 50% for child and adolescent. It appears that the Older Person people took the task more seriously than the others. It has been noted that there were different levels of support for the survey between groups, and this may have accounted to some degree for the different response rates.

The length, design and complexity of the on-line survey may have contributed to the smallish number of respondents with full response sets. Many of the questions were repetitive, and some of the respondents found some of the questions hard to answer in the abstract. In hindsight, there was perhaps little value in asking people for additional factors, and then asking then to rate these for importance; if they hadn't been at least minimally important they wouldn't have mentioned them. If this exercise is treated as a pilot, then there is scope for improving the survey.

As to the respondents themselves, even though they were all members of expert groups or benchmarking forums, they were nevertheless quite varied. In particular, about 70% had ongoing clinical responsibilities and 30% did not, and about half provided outcomes training to other staff and half did not. To some extent, therefore, many of the respondents may have been 'arm chair' experts, in the sense of holding primarily academic, advisory or management positions, with relatively little or even no direct clinical contact work and consequent personal use of outcome measures. Naturally, there is some interest in whether responses vary according to these distinctions, but when one factors in the age group stratification, the numbers in the cells will be too small to allow conclusions to be drawn confidently.

Turning to the substantive results, on the clinical significance items, there is considerable consistency between the three age groups. Almost everyone indicated that the threshold for clinical significance is 2 (mild problem) for almost every item. That is, although given the opportunity to nominate different item thresholds of clinical significance, respondents were comfortable with the status quo. This may reflect conformance to the HoNOS training materials; at least it does show that there is a consistent view among the experts. A survey like this, however, does not inform whether clinicians are rating accordingly in actual practice.

There has been some concern that HoNOS scores are generally too low. (Of the form: How can X% of HoNOS total scores at admission to acute inpatient be below Y?). The survey was designed to allow expert views regarding alternative thresholds for 'clinical significance'. The findings, however, the results do not support that idea.

The questions asking about the importance of the constituent items also produced quite consistent results. Almost everyone thinks that all items are important or very important. In a sense, this vindicates the original development of the HoNOS family

of measures; the items, while not covering all possible problems that a person with a mental illness might have, at least includes problems that are commonly present in such people, and, when present, are important. Although the questions were posed as ones of relative importance, no relative judgements were sought. Each item was evaluated independently. While the survey allowed for experts to identify areas of relatively greater importance, which in turn could be reflected with differential weightings in overall severity assessments, the survey findings do not support this. However, given the relatively small numbers of respondents from individual clinical areas, and the global nature of the question, the survey does not exclude individual items being considered of greater importance for specific purposes.

The expectation of improvement results showed some consistent and plausible results. In each age group, the two Impairment items attracted the least expectation of improvement, while the Behaviour and Symptom items generally showed the greatest expectation of improvement. The overall expectations of no improvement (the percentages in the bottom right hand cell in each of the three tables) were 11.6%, 10.7% and 19.2% for Adult, Child & Adolescent, and Older Person respectively, suggesting a generally lower expectation of improvement on the HoNOS65+ than on the HoNOS or HoNOSCA.

Interpretation of these findings needs to be considered in the context of actual episode transitions observed in the MH-NOCC data. The following table, taken from the DST, shows the numbers of pairs of episode transitions in the national data set.

		A-R	A-D	R-R	R-D
Inpatient	Inpatient	1,747	54,933	2,260	1,041
	Child & A	111	2,756	11	41
	Older Person	507	6,432	270	285
Ambulatory	Inpatient	15,377	24,384	26,635	9,466
	Child & A	5,196	9,560	2,365	2,367
	Older Person	2,028	8,333	3,064	2,125

It shows that there are very small numbers relatively, and in some cases absolutely, of episode transition pairs of assessments involving Reviews in acute inpatient settings in all three age groups. The proportion of data episode transitions in acute inpatient settings that are Admission to Discharge are 92%, 94% and 86% for Adult, Child & Adolescent, and Older Person respectively. Considering that reviews are only required after 91 days, and that most episodes in acute settings are much shorter than this (around 11 days in Adult), any inpatient episode in which a Review became due would be of very unusually long duration, and hence highly atypical. In view of this it may be best to only consider ratings regarding Admission to Discharge transitions. The average expectation of non-improvement per item in Adult, Child & Adolescent, and Older Person between Admission and Discharge was 15.8%, 11.6% and 17.0% respectively.

The above table shows a much more even distribution of episode transition data in Ambulatory settings, and reasonable absolute numbers (never less than 2,000) as well. Generally, there were more pessimistic expectations on the HonOS65+ among the Older Person respondents. Also of interest is that, in Adult and Child &

Adolescent there was much higher expectation of non-improvement between Admission and Review (14.4% and 16.9% respectively) than in any other pair of collection occasions (all in the range 3.6% to 10%); in Older Person the expectations between the four pairs of collection occasions was much more even. It is not immediately apparent why this might have been.

The additional factors questions showed some interesting effects, but we have not analysed the corresponding importance ratings on the basis that the very fact of nominating an additional factor presumes some minimal level of importance. First, in each of the age groups, there were no factors that were mentioned by more than one or two people, suggesting that there is no consensus as to what important areas are currently omitted. Second, some respondents nominated as additional factors things that are already included in the HoNOS/CA/65+, like accommodation, physical health, and social problems. Third, some of the things that people identified as missing from the HoNOS/CA/65+ are in fact captured by other instruments within the outcomes suite(s), e.g. the LSP-16 assesses medication compliance and diet. This is perhaps a limitation of studying the HoNOS in isolation from other instruments in the suite.

Section 8: Summary & conclusions

Summary

The key findings from the survey can be summarised as follows:

- The response rate was somewhat less than expected given the targeted nature of the survey invitations. To that end, it is difficult to be certain about the representativeness of these expert opinions;

- On all three measures, most respondents identified a clinical rating of '2' as the threshold for clinical significance

- This is in line with current training of the HoNOS family of measures

- Most respondents regard all items as important and this upholds the original design of the instruments;

- In inpatient settings, it is only Admission to Discharge paired data that occurs frequently enough to be warrant any consideration regarding differential weighting of the HoNOS items with respect to overall clinical severity;

- There was little to no consensus on what additional factors should be included when assessing severity of mental illness.

- While it had been hoped that the exercise would shed light on questions of validity, an opinion survey of itself cannot establish such properties in any formal sense. Nevertheless, the results do support the content validity of the measures to some degree

Conclusions

The survey was designed to elicit expert opinion regarding the threshold for clinical significance on the HoNOS suite and whether all of its component items were equally important in determining overall clinical severity.

Respondents essentially confirmed the ideas used in the course of training that the threshold for clinical significance is a rating of at least '2'. Moreover, expert opinion did not indicate that any particular HoNOS item, or subset of items, was relatively more important in relation to overall clinical severity, nor was there any consensus as to important areas that are not currently covered.

Further exploration of the question of clinical significance as reflected in the HoNOS family of measures could take a number of forms.

One would be repeating the survey with a larger and more representative sample; however it is quite likely that such an exercise would essentially echo the current findings.

Another would be to progress plans for a revision of the HoNOS, but this might be a long and costly process. As to concern over the instruments, it may be worth pointing out that certain limitations of the HoNOS (not so much the HoNOSCA and HoNOS65+) have been recognized, and that there has been some thought given to revising it (Trauer & Buckingham, 2006)[1].

A third, non-exclusive, possibility would be to undertake some empirical work to explore the capacity of individual items of the HoNOS family to predict service utilisation. This is in fact the standard approach used in 'casemix' classification. Hitherto, AMHOCN has not undertaken casemix classification research and development work given the fact that the clinical materials (i.e., the NOCC suite) cannot be linked to the National Minimum Datasets (NMDS) for Mental Health Care. One possible line of enquiry could be to use available NOCC Collection Occasion data as proxies for service utilisation. Certainly this could be done with the Admission and Discharge Collection Occasion dates to derive an approximate length of stay. This kind of work would be of greater utility if like with like services were in scope for analysis (e.g., exclude Forensic services and 'non-acute' services).

A further option would be to explore the question of clinical significance and clinical importance within more specific clinical or service contexts, and test expert opinion in these contexts empirically. This is essentially what is being done in the DST Clinical Prompts workshops where selected, active clinicians have emphasised that the question of threshold for clinical significance is must be considered in context (e.g., whether the consumer is in inpatient or ambulatory care). They have further emphasised that clinical significance thresholds are probably better understood as relating to the urgency of need for supervision and short term risk. These clinicians have clearly identified different thresholds for different items.

At this stage, AMHOCN will seek comment and advice from each of the three Mental Health Outcomes Expert groups to each of the four National Mental Health Benchmarking Forums and the National Mental Health Performance Sub-Committee.

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[1] Trauer, T. & Buckingham, B. (2006). The Health of the Nation Outcomes Scales (HoNOS), General Adult Version: Towards an agenda for future development. Version 1.0. Unpublished document produced on behalf of the Australian Adult Mental Health Outcomes Expert Group.