

## Attitudes of mental health staff to routine outcome measurement

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### Abstract

**Background:** Routine outcome measurement is mandated in public mental health services in Australia, but uptake and compliance are variable. This may be because of uncertainties and resistances among clinicians.

**Aims:** To survey attitudes and practices to routine outcome measurement among staff in adult area mental health services and to elucidate their correlates.

**Method:** As part of a larger study, a specifically designed questionnaire was distributed to all staff.

**Results:** A high return rate was achieved. A wide range of opinion was found. Staff who had attended training reported the measures as easier to use than those who had not. Staff who had recently seen feedback rated outcome measures as more valuable but less easy to use than those who had not seen feedback. Compared to other disciplines, medical staff and psychologists tended to rate outcome measures as less useful.

**Conclusions:** The results have implications for the implementation and sustainability of routine outcome measurement. They highlight the need for staff to receive targeted training and usable reports, and to have access to resources to extract meaning and value from outcome measures.

**Keywords:** Routine outcome measurement, clinician attitudes, public mental health services

### Introduction

Gradually from about 2000 onward, Australian states and territories have implemented routine outcome measurement (OM) in at least some of their services, and full implementation in all public mental health services from 2003. It has been noted that to be useful OM must be integrated into the ongoing process of care (Callaly & Hallebone, 2001) but early indications are that the rates at which measures are collected vary greatly between agencies and over time (Trauer, 2004).

A number of publications have noted a range of sentiment relating to OM, ranging from enthusiasm through ambivalence to scepticism and resistance. Walter et al. (1998) noted that the attitudes of staff towards OM were important since they may influence ratings themselves, improve the design of measures, and indicate how outcome assessment should be introduced into services. They surveyed staff in an Australian area mental health service

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The study was conducted at St Vincent's Mental Health Service, St Vincent's Hospital, Melbourne, Victoria and Barwon Mental Health Service, Victoria.

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which had taken part in a Commonwealth-funded project that had required them to rate patient outcome. The major concern expressed by respondents was that rating outcome was too time-consuming, and over half were not in favour of measuring outcome routinely even if it meant providing a better service to patients. In another Australian study, Aoun et al. (2002) concluded that their assessment of staff attitudes towards routine OM revealed a need to provide staff with reasons and incentives for incorporating outcome measurement into routine practice, in addition to providing thorough and on-going training and support in time and resources from management.

Crocker and Rissel (1998) sent questionnaires assessing knowledge of, attitudes to, and expected impact of, the health outcomes approach to community mental health clinicians. Their results identified some pessimism about what focusing on health outcomes would achieve for the clinicians or their clients. The strongest and most consistent predictor of positive expectations of an increased focus on health outcomes was the extent to which staff thought they would be able to influence the way this approach would be applied to their workplace.

Stein (1999) in an editorial to a special issue of the *British Journal of Psychiatry* on a leading outcome measure, the Health of the Nation Outcome Scales (HoNOS), was dismissive of the instrument, feeling that it was unlikely to enter routine use in the NHS, although it could play a major role in research. Gilbody et al. (2002), in an article entitled "Psychiatrists in the UK do not use outcome measures" published three years later in the same journal, noted a variety of potential problems, but only a few benefits, of routine OM.

Garland et al. (2003) assessed the views of clinicians in a large children's public mental health service system. They found great variability between clinicians in attitudes about empirical methods of treatment evaluation. Although all participants had received scored assessment profiles for their clients, the vast majority (92%) reported that they did not use the scores in treatment planning or monitoring, perceiving little clinical utility of OM. Many felt that the feedback received was not "user friendly". Even most of those who reported that they understood the feedback indicated that they didn't find the scores helpful in practice. Half requested simpler graphic and narrative interpretations of the data.

Huffman et al. (2004) studied practitioners' attitudes toward child mental health services data collection and OM. They concluded that "Overall, the practitioners... had positive attitudes toward outcomes monitoring and its importance in general; however, the respondents assessed the significance of outcomes monitoring for their own treatment practices as 'little to moderate.' More specifically, practitioners reported that outcomes measurement was important for assessment purposes but less important in influencing their selections of treatment methods and their overall practice. Practitioners also reported the importance of outcomes monitoring for research, as well as program improvement and funding, as much higher than for treatment" (p. 180). They also found that, compared with psychologists and other child mental health specialists, psychiatrists held less favourable attitudes toward outcomes evaluation.

The reviewed literature demonstrates that there is considerable variability in the views concerning OM held by mental health practitioners. In this paper we report the results of a survey of attitudes and practices in relation to OM among staff in adult area mental health services. We were particularly interested to discover any consistent correlates of these attitudes.

## Setting

The study was conducted in two public adult area mental health agencies in Victoria: Barwon, a regional/rural service based in Geelong, and St Vincent's, a metropolitan service

based in inner Melbourne. Within each agency, ambulatory services are delivered by teams organized by geographical catchment, and there are acute inpatient wards and rehabilitation residential units. These teams and units have multidisciplinary staffing, comprising medical, nursing, and allied health professionals. Both agencies have had significant prior exposure to service research in general and OM in particular, making them especially suited to a study of this type. Barwon participated in a national case-mix study (MH-CASC; Buckingham et al., 1998) and the Victorian HoNOS field trial (Trauer et al., 1999), and clinical staff in both services received training and began routine OM in mid-2000 (Trauer et al., 2002).

## Method

The attitudes data presented here were collected as part of a wider study, funded by the National Health and Medical Research Council (NHMRC), whose objective was to evaluate adult mental health services using routine OM. A questionnaire (available from the first author on request) based on the work of Stedman et al. (1997), Callaly & Hallebone (2001) and Coombs et al. (2002) was devised; it covered basic professional information, nine general items concerning attitudes to OM, recent exposure to and desire for feedback, and eight items relating to the usefulness of the Health of the Nation Outcome Scales (HoNOS; Wing et al., 1998), a short form of the Life Skills Profile (Rosen et al., 1989), and the Behaviour and Symptom Identification Scale (BASIS; Eisen & Dickey, 1996). Apart from some informal piloting, no prior technical work was undertaken to assess the questionnaire's psychometric properties.

Over a 12-month period, all clinical and supervisory staff in both agencies were offered the questionnaire by research assistants on three occasions: June/August 2003, November 2003/February 2004, and June/August 2004. Initial non-return was followed by reminders by mail and/or in person. During the 12 months after the first round of questionnaires was circulated, staff who had conducted OM assessments with their consumers were provided with graphical feedback of those assessments. This was additional to any feedback they had may have been receiving previously or concurrently. Although respondents were asked at each time point whether they had attended OM training, no additional OM training was offered as part of the study. The second and third rounds of questionnaires were intended to detect any changes produced by the study-related provision of graphical feedback. Thus, only responses to the first round of questionnaires were uncontaminated by the subsequent experimental intervention, so it is only the first round results that are presented here.

No power analysis was undertaken because no formal hypotheses were to be tested, and the intention was not to sample but to include all staff. The number of staff across the two agencies was known to be nearly 300, and previous research projects in both indicated that we could anticipate return rates of around 75%, which would result in sufficient numbers for most statistical analyses. The study received research ethics approval from the relevant committee at each agency. Respondents were free to detach their names from the questionnaire before returning it, although unique study numbers enabled the sending of reminders and the alignment of responses from the same staff member over the three rounds.

## Results

### (a) Return rates

At the first round, a total of 283 questionnaires were distributed (175 St Vincent's; 108 at Barwon) and 216 were returned (134 St Vincent's; 82 Barwon), giving an overall return rate

of 76% (77% St Vincent's; 76% Barwon). The return rates of the 170 nursing staff, 65 medical staff, 19 social workers, 14 occupational therapists, 10 psychologists and 5 others were 76%, 70%, 79%, 93%, 90% and 80% respectively. The differences in return rate between the five profession groups are not statistically significant. Staff were allocated to one of five high-level service settings: inpatient (72 staff), community (138), residential (39), administration (13) and other (21). Staff designated as "administration" were mainly senior staff who did not have a primary attachment to either inpatient, community or residential settings, while "other" comprised psychiatric trainees, visiting psychiatrists, and staff in specialist services exempt from OM. The return rates were 75%, 80%, 77%, 85% and 52% respectively. These differences are not significant.

(b) *Development of summary attitude scores*

Scores on the nine general attitudinal items showed a high degree of intercorrelation, as reflected in a Cronbach's alpha of .75. We therefore reduced them to a smaller number of dimensions that would still adequately represent the variation in ratings. The first two principal components accounted for 53% of the overall variance. Following varimax rotation, all nine items loaded  $\geq \pm 0.40$  on one or other of the first two components. Seven of the nine items loaded on the first component, four (The emphasis on outcome measurement is a passing fad and will diminish in time; Collecting outcome measurement data involves more effort than it is worth; I prefer to rely on my own clinical judgment in the management of my patients; Outcome measurement data is too superficial to use in the treatment of patients with mental illness) negatively and three (Outcome measures are helpful in engaging with individual patients; Outcome measures are helpful in understanding individual patients; Outcome measures are helpful to managers in this mental health service) positively. The common theme of these items appears to be *general value*. The remaining two items (I think I need further training in outcome measurement; I would be more likely to use outcomes data if it was presented in a way that is easier to understand) loaded on the second component. The common theme for these appears to be *ease of use*. Observing the directionality of the items, summary mean scores of valid responses were computed, such that higher scores on the first summary scale represented greater value, and higher scores on the second represented greater ease of use. The correlation between them was  $-.12$  ( $p = .07$ ), indicating a slight tendency for higher perceptions of value to be related to lower ease of use.

(c) *Associations of summary attitude scores*

The mean value scores of staff in acute inpatient, community, residential and administration settings were 3.4, 3.1, 3.5 and 3.7 respectively; these differences are statistically significant ( $F_{(3,199)} = 5.5$ ,  $p = .001$ ). This shows that staff in administration settings made the highest ratings of value and staff in community settings the lowest. The corresponding ease of use scores were 2.7, 3.0, 3.2 and 3.3 respectively and not significantly different.

Of the respondents who answered the question that asked whether they had attended an OM training session, 144 (75%) indicated that they had and 49 (25%) that they hadn't. There was no difference between these groups in their mean value score (3.3 for both), but the difference in mean ease of use scores was significant (trained: 3.2; untrained: 2.4;  $t_{(192)} = 5.6$ ,  $p < .001$ ), showing that on average those who had attended training found outcome measures easier to use than those who hadn't.

In response to the question regarding having seen outcome measures feedback in the last three months, 82 respondents indicated that they had seen some and 120 indicated that they

had seen none (of the 14 who did not answer this question several did not have direct care responsibilities). The mean value score of the former group (3.4) was significantly higher than that of the latter (3.1) ( $t_{(200)} = 3.0, p = .003$ ). By contrast, the ease of use scores of the former group (2.8) was lower than that of the latter (3.1); this difference is marginally statistically significant ( $t_{(200)} = 1.9, p = .058$ ). Most (85%) of the 196 respondents who answered the question indicated that they would have liked to have seen feedback in the same period; the other 15% indicated that they would have liked to have seen feedback on none of their clients. The mean value score of the former group (3.4) was significantly higher than that of the latter (2.6) ( $t_{(194)} = 6.4, p < .001$ ). However, as with the previous question, the positions were reversed for ease of use, with the mean score of those wishing to have seen feedback (2.9) being lower than those who did not wish to see it (3.5) ( $t_{(194)} = 2.9, p = .003$ ).

There were non-significant differences between the two agencies in value and ease of use scores, and the correlations with years worked as a mental health profession were very small ( $r \leq .05$ ). Neither were the differences between the five main professions in mean value and ease of use scores significant ( $F_{(4,206)} = 1.1, p = .36$  and  $1.9, p = .12$  respectively).

#### (d) Usefulness

Respondents were asked to rate the usefulness of each of the three outcome instruments for eight potential uses. There were high levels of consistency across the eight purposes for each instrument (Cronbach's alphas  $\geq .91$ ), and across the three instruments for each purpose (Cronbach's alphas  $\geq .84$ ).

The mean (across the three instruments) rating of five purposes (reflection on cases, review of treatment, decision-making about progress, reviews with clients, and decision making about closure) were on the useful side of the midpoint, and three (peer reviews, supervision, reflect on own strengths) were on the not useful side. The ratings of all five of the former group were significantly different from all three of the latter group. The former group all relate to dealing with consumers, while the latter group may be described as professional development.

In addition to the consistency across instruments and across purposes, there was also consistency across all 24 (3 instruments  $\times$  8 purposes) ratings (Cronbach's alpha = .96). For this reason, a global usefulness score, being the mean of all ratings, was calculated. The distribution of scores is displayed in Figure 1.

Figure 1 shows that the global usefulness scores were distributed across the whole range. Whereas there was a preponderance of ratings toward the useful side of the midpoint, approximately 10% of respondents rated all instruments as mostly not useful for any of the eight purposes, and a similar proportion rated all three instruments as mostly very useful for all eight purposes.

#### (e) Associations of usefulness

The difference between the two agencies in global usefulness ratings was very small and non-significant.

The mean usefulness scores of nurses, social workers, occupational therapists, medical staff, and psychologists were 2.23, 2.08, 1.94, 1.93 and 1.81 respectively; these difference are significant ( $F_{(4,199)} = 3.7, p = .007$ ). While none of the pair-wise comparisons were significant, it is apparent that on average the highest ratings of usefulness were made by the nurses and the lowest by the psychologists. The mean usefulness scores of staff in acute inpatient, community, residential and administration settings were 2.19, 2.04, 2.33 and 2.42 respectively ( $F_{(3,191)} = 3.0, p = .03$ ). Thus, similar to the findings with value and ease of use,

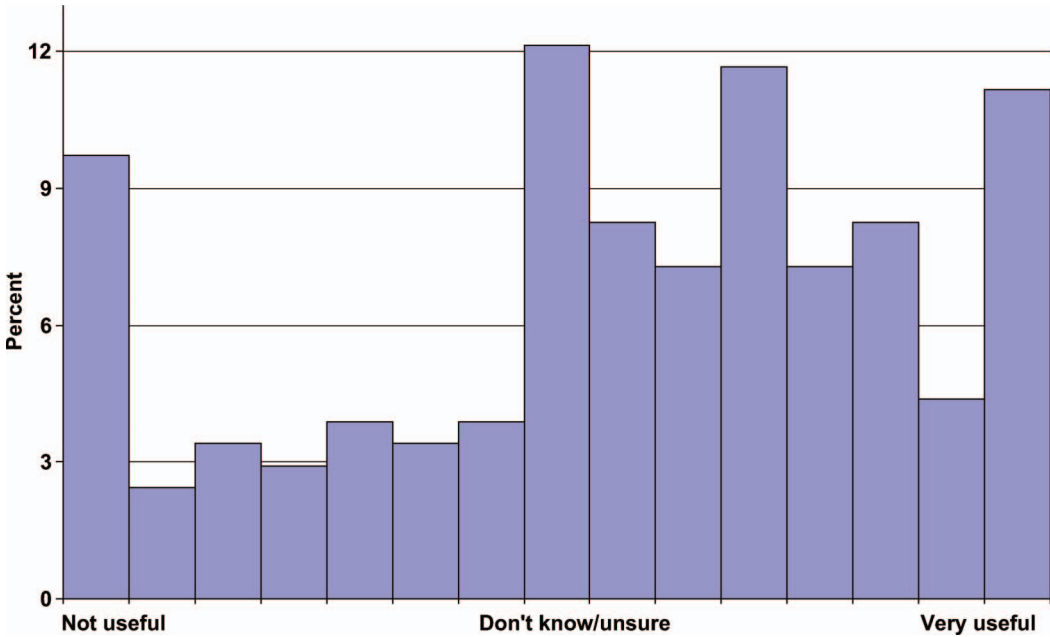


Figure 1. Distribution of global usefulness ratings.

staff in administration settings made the highest ratings of usefulness and staff in community settings the lowest. There was only a negligible and non-significant difference in mean usefulness ratings between those respondents who had attended outcomes measurement training and those who had not ( $t_{(183)} = 0.2, p = .86$ ).

The mean rating of usefulness by those who had seen feedback on at least a few of their clients (2.25) was significantly higher than that of those who had seen feedback on none (2.02) ( $t_{(195)} = 2.9, p = .004$ ). Similarly, the mean rating of usefulness of those who would have liked to have seen feedback on at least a few of their clients (2.20) was significantly higher than that of those who would have liked to have seen feedback on none (1.63) ( $t_{(189)} = 5.1, p < .001$ ).

Since many of the variables analyzed in this section were inter-correlated, they were considered simultaneously using multiple regression. Discipline and setting were represented by indicator variables. This analysis produced a significant result ( $F_{(10, 156)} = 2.6, p = .006$ ) and was able to explain 9% of the variance of usefulness scores (adjusted  $R^2$ ). Three variables had individually significant contributions: having seen feedback (positively), psychology discipline, and medical discipline (both negatively).

## Discussion

A particular strength of this study was its high return rate, giving confidence in the representativeness of the findings. This is important since there is a danger that questionnaire returners are more concerned about the issue than non-returners, who may be more apathetic or antagonistic. We found that our questionnaire could assess respondents' view of the general value and ease of use of outcome measures. Average scores on both tended to be mid-range, but with a high degree of spread. This lends support to anecdotal reports of a wide range of opinion, but not to any suggestion that opinion is polarized.

One useful approach to understanding the wide range of opinion is the transtheoretical model which has been applied to the modification of problem behaviours (Prochaska & DiClemente, 1992). Broadly, the model postulates sequential stages of change: pre-contemplative, contemplative, preparation, action and maintenance, and that different strategies are required for people at different stages. We may speculate that a “one size fits all” approach to OM training is inefficient, and that targeted methods are required for people at different positions on the spectrum. This is already occurring at the action and maintenance end of the spectrum, with advanced training, refresher training, and train-the-trainer models (Australian Mental Health Outcomes and Classification Network, 2006), but there is little at the pre-contemplative end apart from general information dissemination.

The identification of two relatively independent attitudinal components, value and ease of use, suggests alternative focuses for the promotion of OM among mental health staff. Standard training packages used in Australia have emphasized the history and rationale of OM, as well as the technicalities of when and how to complete the measures. Maybe as much effort needs to be spent in making OM easy to use, perhaps by familiarizing users with getting data into and out of their information systems, understanding the standard reports, and helping them use OM information in communicating with colleagues and consumers.

We found that administration staff, who have the least requirement to actually complete measures, perceived the highest value in OM, and community staff, who had the greatest requirement, perceived the least value. If busy clinicians perceive low value in OM they may be tempted to complete them in a perfunctory fashion, leading to low quality data. If administration staff and others then place high reliance on these data for “higher order” purposes like case-mix classification (Buckingham et al., 1998; Gaines et al., 2003) and benchmarking (Lefkowitz, 2004) the resulting models may lack robustness and credibility on account of doubts over the underlying data quality. Typically, little provision is made for the time overhead for completion of OMs. To the extent that OM information is deemed to be important at both individual and aggregate levels, service leaders and managers should consider making better allowance for its careful collection.

It was encouraging to find that ease of use was significantly higher in staff who had been trained, compared to those who had not, especially since Rock and Preston (2001) found no difference in reliability in rating the HoNOS between pre- and post-training. Given that OM is now mandatory in public mental health services throughout Australia, the increased confidence that training may confer should assist with staff compliance.

We also found that staff who had been recently exposed to OM feedback rated OM as more valuable but less easy to use than those who had not been exposed. The former finding may be understandable in terms of exposure alone: the theory of “mere exposure” (Zajonc, 1968) suggests that repeated exposure to something can alone enhance attitudes towards it. The latter finding highlights the fact that the meaning and significance of OM results are not immediately apparent to all staff. Generally positive attitudes to OM but uncertainty as to how to use the results were found by Meadows et al. (1998) in relation to diabetes care. In a mental health setting, Close-Goedjen and Saunders (2002) found that provision of technical support improved clinicians’ attitudes. Worryingly, however, attitudes remained high but behaviour returned to initial levels after support was withdrawn, leading them to conclude that “. . . clinicians are not opposed to OA [Outcomes Assessment] per se, but rather were opposed and resistant to the potential additional paperwork and administrative requirements that OA protocols often represent” (p. 107).

Assessment of the usefulness of the three specific instruments showed some clear results. First, the instruments collectively were seen as far more useful for clinical than for professional development purposes. Since the primary purpose of OM is to assess consumers’ mental

health status and progress, this is no bad thing. Second, there was very wide variation in a summary measure of usefulness, ranging from maximally positive to maximally negative. Callaly et al. (2006), studying staff attitudes in one of the present two agencies (Barwon) some months earlier obtained equal numbers of positive and negative observations from clinicians about the clinical value of the clinician-rated outcome measures, but more positive observations about the value of the consumer-rated outcome measure.

This study has replicated the common finding of medical staff being less favourably disposed to OM than other staff. Not previously described was that psychologists were also less favourable. The former result, being based on 65 doctors, seems robust, but the latter, based on only ten psychologists, needs to be treated with caution. We may only surmise as to the basis of the discipline-based differences. Recall of remarks made in training and other settings suggests that some medical staff perceive OM as a threat to their clinical judgement, and therefore autonomy, while some psychologists are concerned about the psychometric purity of OM instruments. This may be understood, in turn, as an under-reliance and over-reliance on objective, “evidence-based”, methods. It is also possible that medical staff and psychologists may, through their training, be more familiar than other staff with the psychometric properties of standardized measures and their limitations.

We found some evidence of an inverse relationship between liking of OM and their ease of use. Relatedly, liking and ease of use were higher among those who had attended training. To the extent that standard training includes material on the rationale of OM, it is encouraging to find this difference, albeit indirect, between the trained and the untrained. The finding is compatible with the view that clinicians would use OM more effectively if they found them easier to use. Trauer et al. (2006) noted that whereas early implementation of OM in Australia was mainly devoted to training in the completion of the measures, latterly there has been increasing recognition of the need for tools to assist staff to understand what the scores mean. They also noted that such tools are now beginning to emerge (e.g., Australian Mental Health Outcomes and Classification Network, 2005; 2006).

The present study was highly reliant on a locally designed questionnaire. There is as yet no consensus on how the views and attitudes of stakeholders should be elicited – different studies have developed instruments tailored to their own circumstances. Given the spread of OM into several countries in North America, Australasia and Europe, it may be that this area of research is sufficiently advanced to warrant some standardization of approach to allow for comparisons to be made. Studies of attitudes and self-reported behaviour are comparatively easy, requiring little more than questionnaire data. Establishing the link between attitudes and actual behaviour is much more difficult, in that information on OM-relevant behaviour is less readily available. In Australia, the information systems in several jurisdictions are now able to report the compliance and timeliness of assessments at the level of individual clinicians and teams. The emerging opportunity to examine the relationship between attitudes and actual behaviour will elucidate how important staff attitudes are in routine OM.

Finally, we acknowledge certain limitations of this study. First, staff in only two services were studied, and we cannot say whether our findings are typical of other services. Our impression is that, just as we found wide differences among staff within our study sites, there are similar differences between services. Second, we only studied adult services; there is some (unpublished) evidence that things may not be the same in child and adolescent, and older persons services.

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