

# An evaluation study of clinical case management using clinical case management standards

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## Abstract

The practice of case management, together with the priorities of case managers and consumers of case management services, has not been fully evaluated. This paper describes a methodology, based on quality assurance standards, used for the evaluation of clinical case management in a remote mental health service in Australia. A randomly selected group of 25 consumers with schizophrenia or major affective disorder and their six case managers completed questionnaires about the outcome and priorities of 13 components of clinical case management. There was general agreement between consumers and case managers about which components of clinical case management had been delivered. Engagement, Assessment and Planning were seen by both groups as the most important components. Consumers rated Psycho-education more importantly than their case managers. Case management components have previously been identified and can be utilised as a form of clinical outcome measure. This methodology appears valid and merits further attention as a means of studying clinical case management and consumer priorities.

## Case Management

A central theme of case management is that one nominated worker provides an array of services to an individual consumer which are individually tailored to meet the consumers needs (Onyett, 1992). In mental health models of best practice the concept of case management has moved beyond the early brokerage model to a model of clinical case management, a process requiring direct consumer contact and clinical skills.

The brokerage model of case management has an emphasis on connecting consumers

with services, and monitoring whether those services are provided. The model includes assessment, planning, linking and monitoring as core tasks (Anthony *et al.*, 1988; Solomon, 1992). A sharp criticism of the brokerage model is that it assumes that needed services in fact exist and that consumers will be willing and able to use them (Chamberlain & Rapp, 1991). Consumers can also see brokerage as an attempt by the case manager to shift the responsibility of care to another agency (Huxley & Warner, 1992).

Within the clinical case management model is the recognition that case managers use the

bio-psycho-social model of mental illness, and that the relationship between case manager and consumer is of central importance to achieving positive clinical outcomes. Although the components of the brokerage model have been retained, the model has been expanded to include problem solving and clinical elements (Kanter, 1989; Harris & Bergman, 1987; Bebout & Harris, 1990; Dietzen & Bond, 1993).

Clinical case management, as described by Kanter (1989), and later by Onyett (1992), includes 13 components of practice across four phases of ongoing intervention: the Initial Phase includes Engagement, Assessment and Planning. The Environmental Phase includes Linkage with Other Resources, Consultation with Family and other Care Givers, Maintenance and Expansion of Social Networks, Collaboration with Physicians and Hospitals, and Advocacy. The Patient Interventions Phase consists of Psychotherapy, Training in Independent Living Skills and Psycho-education. The final Patient Environment Phase includes Crisis Intervention and Monitoring.

The clinical case management model is often synonymous with the assertive case management component of model community-based mental health services, such as those described by Stein (1993) and Houlst (1993). These services have in common an assertive outreach programme that offers continuity of treatment in the community to consumers with serious mental illness, with clinical case management being practised within the service structure. Bachrach (1993) has suggested that if case management is a function for attaining continuity of care, it seems unlikely to be realised without an organised service behind it. Rosen (1994), speaking in the context of these services, described case management as 'the clinical cornerstone of comprehensive mental health care'.

Rubin (1992), in a review of the literature, has argued that the efficacy of case management has not been empirically demonstrated, although there are reasonable grounds to postulate that it is effective. In the research he reviewed, there were methodological or contextual problems with the studies that found against case management. When case management has been effective it is because it was not separated from an entire model programme that delivered a full range of services. A good example of this approach is in the work of Hambridge & Rosen (1994). In this study, 64 consumers with a previous history of repeated hospital admissions were individually allocated to a team of clinical case managers providing assertive community treatment. The team was part of an integrated and comprehensive mental health service structure that provided co-ordinated continuity of care through all components of the mental health service. The components of the mental health service include 24-hour crisis support, community treatment teams, supported accommodation, psycho-social rehabilitation and inpatient facilities. The number of consumers admitted to hospital decreased, consumer functioning improved and the severity of symptoms decreased to a significant degree. The number of psychiatric hospital bed days occupied by consumers decreased by 62%.

While the efficacy of these services has been demonstrated there is a need to gather further evidence relating to the direct impact that the individual practitioners of case management, working within these service structures, have on consumers.

The Sainsbury Centre for Mental Health Case Management Project in London funded a service user study of case management (Beeforth, Conlan & Graley, 1994). The survey of 23 case-managed consumers found that consumers were generally positive about

their experience of case management. Accessibility of the case manager was valued, as was involvement in decision making and the friendliness of case managers. Common themes emerged, such as the central importance of the relationship between case manager and consumer, the empowerment of the consumer and the availability of practical help.

We decided to examine the various components of case management that were delivered individually to a group of seriously mentally ill consumers by their multi-disciplinary case managers. We hypothesised that case managers and consumers would put differing levels of importance on the various case management components. To do this a methodology was developed which allowed us to compare the importance attached to the components of case management by both consumers and their case managers. Case management was delivered within an assertive community mental health service structure.

### The study site

The Far West Mental Health Service is based in Broken Hill, a remote town of 24,000 people in the far west of New South Wales. The Far West Mental Health Service covers a geographical area of 147,000 square kilometres. Broken Hill is a mining town, although has high rates of unemployment, and like many parts of rural Australia is suffering the effects of the rural recession. This semi-arid area is 500 kilometres from Adelaide and 1300 kilometres from Sydney. The nearest NSW psychiatric hospital is 900 kilometres away. The service is community-based, with a 24-hour crisis component, a small two-bedded in-patient unit, rehabilitation service and an outreach service, in partnership with the Royal Flying Doctor Service, to isolated

communities. The majority of consumers are treated in the community. The service had, at the time of the study, a multi-disciplinary team of 10 staff, comprising psychiatric nurses, social workers and psychologists, who all practice case management. Within the service, as with many other mental health services in Australia, is a recognition that the components of clinical case management represent the core tasks of all mental health clinicians. Discipline specific skills are used in addition to these core skills.

The Far West Mental Health Service has received national recognition as a model rural mental health service. Various aspects of the Far West Mental Health Service have been described elsewhere in the literature (Yellowlees, 1992; Yellowlees & Hemming, 1992; Yellowlees & Kaushik, 1992; Yellowlees & Muchamore, 1994).

### Methods

Six multi-disciplinary staff members of the Far West Mental Health Service were included in this study. All were experienced clinicians with more than 1 year, and several with many years, of experience in community mental health service delivery. They comprised three psychiatric nurses, two psychologists and a social worker and all had experience in case management, crisis intervention and psychosocial rehabilitation. Staff excluded from the study were those who had less than 1 year's experience working in the service. This was because the evidence presented by Franklin *et al.* (1987) suggests that case management services may not be effective for consumers, unless delivered for 1 year or more. Twenty-five consumers, all of whom had been case managed by one of the six case managers for at least 1 year, were selected using a stratified random sample procedure, and consent for the study was

obtained. Eleven were male and 14 female, all were aged between 20 and 40, and were non-aboriginal Australians. Most consumers were relatively well, and all had a diagnosis of schizophrenia or major affective disorder (DSM-III-R). Those who were selected and happened to be unwell at the time of the study were not excluded.

## **The questionnaire**

A questionnaire was developed from the case management standards contained in the Area Integrated Mental Health Service Standards Project (AIMHS) developed by Rosen, Miller & Parker (1993). The AIMHS Standards were developed as a quality assurance project to apply to both in-patient and community settings. They can be used by all mental health professional groups, consumers and carers, and are based on practices known to be linked to desirable outcomes (Rosen, Miller & Parker, 1989). These standards include standards relating to the clinical components of case management and serve as a description of comprehensive clinical case management practice.

In designing the questionnaire, the authors identified the standards that applied to the 13 components of clinical case management of Kanter (1989) and Onyett (1992). The selected standards were rephrased in statement form, and consisted of 30 statements. A satisfaction question was also included. A five-point Likert Scale was employed using the following ratings to the 30 statements: strongly agree, agree, undecided, disagree, strongly disagree.

The statements sought staff responses about their delivery of the components of case management to specific consumers and asked for consumer responses about case management services received from their case manager. The second part of the questionnaire

asked both case managers and consumers to rate the 13 components of case management in order of priority. The questionnaires are available from Mark Hemming.

The questionnaire was initially piloted with a small group of six staff and consumers of another mental health service with test–retest reliability being examined using Spearman's Rank Order Correlation Coefficient. The observed correlation's for staff ( $r=0.88$ ) and for consumers ( $r=0.94$ ) suggested that the questionnaire had an acceptable test–retest reliability. The Spearman's Rank Order Correlation Coefficient was used as useful results are achieved with small samples, with excellent results for samples as large as 30.

The main study of 25 consumers and their case managers followed and results were again summarised and analysed using Spearman's Rank Order Correlation Coefficient to examine the agreement between case managers and consumers as a whole and between individual case managers and the consumers that they case-managed. Themes that emerged from the questionnaire were also reported. Subjects were interviewed and responses recorded on the questionnaire by the author (MH).

## **Results**

The correlation between case managers and consumers as a whole was found to be  $r=0.51$  suggesting strong agreement about services delivered and received.

Table 1 displays the results of the questionnaire and details consumer and case management responses to the 13 components of case management. Each item represents a statement asked of the subjects. The figures represent the mean scores for each item by case manager, consumer, and their combined scores. Figures over three represent the level of agreement that components of case man-

**Table 1:** Mean scores for all case management components for both consumers and case managers

Case management component	Client score	Staff score	Combined score
Engagement	4.52	4.36	4.44
	4.04	4.24	4.44
Assessment	4.24	4.28	4.26
	4.00	3.92	3.95
Planning	3.24	3.88	3.56
	4.08	3.60	3.84
Linkage with community resources	3.88	3.68	3.78
	3.96	4.16	4.06
Consultation	3.44	3.76	3.60
	3.36	4.52	3.95
	2.88	3.88	3.38
Maintenance of social networks	3.36	3.44	3.40
	3.32	3.40	3.36
Collaboration with doctors and hospitals	4.08	4.08	4.08
	4.24	4.32	4.28
Advocacy	4.12	4.20	4.16
	2.44	3.52	2.98
Psychotherapy	2.44	3.48	2.96
	3.24	3.16	3.20
	3.84	4.24	4.04
Psycho-education	3.68	3.80	3.74
	4.44	4.20	4.32
Crisis intervention	4.28	4.28	4.28
	4.36	4.24	4.30
Monitoring	4.20	4.04	4.12
	3.92	4.28	4.10
	4.08	4.44	4.26
	4.12	4.44	4.28
	4.24	3.88	4.06
Satisfaction	4.36	3.28	3.82

agement were delivered, with figures below three indicating disagreement about the delivery of case management components.

There was strong agreement between the two groups about the level of engagement and trust (mean score 4.44) between case manager and consumer, with further agreement about thorough assessments being undertaken (mean score 4.26). While all case

managers thought it necessary for their consumers to see a psychiatrist, six consumers felt that this was not appropriate and, expressing strong satisfaction with their case managers, thought they were best managed by their case manager and General Practitioner.

There was also strong agreement from consumers that their case managers would speak

up to make sure that they received the clinical and community resources that they needed. Case managers agreed that they had advocated to maximise the consumer's access to clinical and community resources (mean scores 4.08 and 4.28)

In terms of crisis intervention 23 consumers knew how to contact the mental health service after hours, with 22 saying that their case manager was available to them in a crisis. There were 20 staff responses in agreement that their consumers knew how to contact the service after hours, with 23 individual responses saying that they had made themselves available to their consumer during a crisis (mean scores 4.32 and 4.28).

There were six statements covering the case management component of Monitoring. There was a theme of agreement throughout this component with strong agreement that continuity of care had been provided. There was also agreement between both groups when asked about the identification of psychiatric symptoms. Two consumers, both of whom were paranoid, reported that they had no psychiatric symptoms. They did, however, agree that their case manager had tried to improve their co-operation with treatment.

Consumers and staff were asked about the identification and attention given to physical health problems. Although there was some agreement between the two groups that physical problems had been attended to, eight staff responses disagreed that they had identified physical problems, with eight disagreeing that they had attempted to improve the physical health of consumers. The data were inspected to see if staff from any specific discipline were less likely to attend to physical health problems than others. This was found not to be the case, with the responses being evenly spread through all staff disciplines.

The responses for the component of Psychotherapy indicate that counselling appears

to be provided as required. One client disagreed and one other strongly disagreed that counselling was provided on a regular basis. The consumers who disagreed were also clients who expressed dissatisfaction with their case manager later in the questionnaire.

The final question asked consumers about their level of satisfaction with their case manager. Case managers were asked whether they believed their consumers were satisfied with them. There were generally positive responses to this item.

### **Rating the priorities of case management**

All staff involved in this study and 21 of the 25 consumers completed the ordinal scale ranking case management components in order of priority. The responses were examined to find the mean score for both consumers and staff and were ranked in order of priority. The rank order of priority of case management components for case managers and consumers appears in Table 2.

A Spearman's Rank Order Correlation Coefficient was used to examine the level of agreement between the two groups. The correlation between staff and consumers was found to be statistically significant,  $r = 0.85$ , indicating strong agreement between staff and consumers of the priority of case management components.

Consumers and case managers rate Engagement, Assessment and Planning as the three most important case management components. Engagement is identified as the most important component of case management by both staff and consumers. This finding confirms the view that the relationship is central to case management.

Both groups agreed that Linkage with Community Resources, Maintenance of Social Networks and Training in Independent Liv-

**Table 2:** Rank order of importance of case management components by consumers and case managers.

Component	Case managers	Consumers
Engagement	1	1
Assessment	2	2
Planning	3	3
Crisis intervention	4	6
Individual psychotherapy	5	7
Consultation with family & other care givers	6	5
Monitoring	7	10
Collaboration with physicians & hospitals	8	7
Advocacy	9	9
Psychoeducation	10	4
Linkage with community resources	11	11
Maintenance & expansion of social networks	12	12
Training in independent living skills	13	13

ing Skills are the least important. An area of importance is the priority that consumers place on Psycho-education, ranked fourth by consumers yet tenth by staff. Individual Psychotherapy was ranked slightly higher by staff (ranked 5) than consumers (ranked 7), and may be due to the emphasis placed on counselling in professional training.

There was no difference between the responses of consumers by diagnosis or by case managers by individual disciplines.

## Discussion

Case management can be delivered effectively to consumers with schizophrenia and major affective disorders using the same components of case management for both groups. What is more, consumers from both diagnostic groups can rate the importance of various case management components. Variations in consumer responses and needs are likely to be individually rather than diagnostically based.

There was no difference in services delivered by any of the professions sampled in this study. The issue of discipline specific clinical practice versus clinical case management practice is a contentious issue in the community mental health arena. Case management has been defined as a system to overcome the rigidity of systems of care (Anthony, Cohen & Cohen, 1988) and is seen by Onyett (1992) as a modality for avoiding 'block treatments'. One of the tasks of the community mental health movement is to avoid discipline specific 'block treatments' and to integrate the core skills of clinical case management into each disciplines clinical practice. Bachrach (1993) supports this view by arguing that case management must be defined according to its functions rather than according to the disciplines of its practitioners.

Although the sample of staff in this study is small it may demonstrate that given adequate training and supervision, together with a commitment to practice case management as part of their core skills, staff are able to effectively

provide services that are viewed by consumers as being of similar quality. Furthermore, staff who embrace this model of case management may also be more open to learn from colleagues of another discipline.

The findings of this study were both clinically and organisationally important. From a clinical viewpoint it demonstrated that case managers of the Far West Mental Health Service were delivering case management services effectively. Most aspects of case management were delivered with very high consumer satisfaction. The gaps in service delivery were also easily identified. From an organisational view the evidence suggests that consumers may not want to receive all the components of case management. Staff, conversely, tend to assume that consumers need all case management components. There are few examples in the literature where consumers have been asked about the services they receive, the quality of the service they receive and whether in fact they want the services. All components of case management may be optimal for some individual consumers, and if case management is truly to be a tailor-made treatment option consumers need to be informed more about the case management approach and what it seeks to achieve. Case managers and consumers agreed that Engagement, Assessment and Planning are the first three priority components of case management. A frequent comment made by both consumers and case managers was that without a mutually trusting relationship other components of case management could not follow. An important finding is that consumers can also be engaged on other levels than their illness and this can in fact keep them in treatment. Two consumers, while psychotic at the time of the interview and denying illness, agreed they were engaged with their case manager, that their case manager was helpful and encouraged their treatment compliance.

Both consumers and staff agreed that the least important components were Linkage with Community Resources, Maintenance and Expansion of Social Networks and Training in Independent Living Skills. One hypothesis for this finding may be that in this small rural community there are good family and social networks for consumers, who are therefore less reliant on this type of service component. These priorities may in fact be different for urban dwellers. Case management priorities may also be different for people from different ethnic or cultural backgrounds.

The findings of this study demonstrate that case managers do not always involve the family and care givers in planning. Disagreement occurred between the two groups with the component of Psycho-education with consumers ranking this fourth and case managers tenth. McFarlane (1992) has discussed how the assertive community mental health approach has not adequately addressed family participation in treatment and has documented the efficacy of providing psycho-education within this type of treatment approach. This is a potential area of improvement that needs to be addressed by the Far West Mental Health Service.

There are several methodological criticisms of this study. First, it was a cross-sectional study involving small numbers of consumers and case managers. Secondly, the questionnaire developed requires more examination of its reliability and validity. Future studies involving this type of methodology should have a longitudinal component, to test reliability of the data, as well as the stability of the questionnaire over time. There is also a need for a larger study sample of consumers and case managers.

This small study raises the need to examine in further studies the importance of individual case management components, and

the impact each case management component has. If studies are able to identify the components that the consumers find most useful, services may be able to increase the numbers of consumers staying in treatment. Huxley & Warner (1992) have already hypothesised that those with serious mental illness may respond differently to separate components of case management.

The evidence presented here reinforces their view. It may also be that there are indeed more case management components than described in this and other studies. Given the high consumer satisfaction and the evidence that case management components are delivered, multi-disciplinary case managers are in a position to make an impact on the treatment of those with serious mental illness.

It has been demonstrated that case management is effective when it is part of a comprehensive system of care. Further study is now required to build on this work and examine the interactions between individual case managers and their consumers to identify the approaches and individual styles that are most clinically effective.

## Acknowledgement

The authors would like to thank Associate Professor Ross Harris of the University of Wollongong for his contribution to this work.

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