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**TWO YEAR FOLLOW-UP OF LONG-STAY CHRONICALLY MENTALLY
ILL INPATIENTS TRANSFERRED TO THE COMMUNITY.**

A thesis presented in partial fulfilment of the requirements
for the degree of Master of Arts in Psychology,
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ABSTRACT

The present study was undertaken to evaluate the affect of transferring long-stay chronically mentally ill clients from Lake Alice Hospital to community placements. Thirty chronically mentally ill clients were followed over two years in the community. Follow-up assessments were completed at 12, 18, and 24 months to assess clients' community adjustment. Community adjustment was conceptualised to include measures of general adaptive functioning, maladaptive behaviour, inpatient readmission, client satisfaction, subjective well-being, and levels of distress. The results showed that clients' general adaptive functioning and deviant behaviour remained stable from the hospital baseline assessment into the community follow-up phases. With respect to client characteristics, clients who exhibited more maladaptive behaviour were found to be significantly more likely to be readmitted to a psychiatric unit or hospital, and older clients were more likely to be socially isolated and exhibit poorer levels of adaptive functioning. Many clients remained socially isolated from family and friends, suggesting that if community support were withdrawn neglect may occur. Clients were significantly more satisfied with community than hospital services at 12 months follow-up and clients were found to be globally satisfied with community services. Nevertheless, up to 10% of client's showed poor community adjustment, with frequent readmissions to a psychiatric hospital, poor adaptive functioning, and high levels of maladaptive behaviour and distress. The implications of the findings for chronically mentally ill clients and service providers are discussed, with several recommendations for future research.

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PREFACE

Deinstitutionalisation has been carried out in New Zealand since the 1950's, with community care coming into prominence several years later in the 1970's (Haines & Abbott, 1986; Mason, Ryan & Bennett, 1988). Deinstitutionalisation is generally defined as a movement aimed at minimizing the amount of care provided in traditional institutional settings whilst concurrently maximising community care provided by outpatient agencies (Shadish, Lurigio & Lewis, 1989; Thornicroft & Bebbington, 1989). In addition, other authors describe deinstitutionalisation as the process of providing integrated and continuous assistance for people who are mentally ill within the community whilst avoiding future psychiatric hospital admissions (Aviram, 1990; Bachrach & Lamb, 1989).

The term 'community care' requires careful specification. It can imply a change in methods of service delivery, or may merely imply an alternative to hospital care such as a shift in location of care (Thornicroft & Bebbington, 1989). Community care is defined by the House of Commons Select Committee as appropriate care "provided for individuals in such a way as to enable them to lead as normal an existence as possible given their particular disabilities and to minimise disruption of life within their community" (1985; cited in Malin, 1987, p.33).

A distinction is also often made between acute and chronic mental illness for clients who are transferred from psychiatric hospitals. Although this distinction is made, the criteria used to identify chronically mentally ill samples has not always been clear in previous research. Bachrach (1988) reports three common criteria used to define chronic mental illness; diagnosis, duration, and disability. According to Bachrach, psychotic disorders are generally accepted as meeting the diagnostic criterion for chronicity. The duration criterion requires the diagnosed condition to be persistent or recurring. The third criterion, disability, denotes that the condition results in impaired functional capacities. With respect to institutionalised clients the most commonly accepted definition of the long-stay

chronically mentally ill is an admission duration of over one year (O'Driscoll & Leff, 1993). Impaired functioning is assumed to be associated with the need for hospitalisation and continued support. In contrast, acute usually refers to mental illnesses that have a limited duration or phase (Bachrach, 1988). Because the present study focuses on chronic or long-term mentally ill clients the remainder of this report will focus on this client group.

The primary reason for the present study focusing on chronically mentally ill clients is that uncertainty exists over what success can be expected for these clients. Earlier research has largely focused on acutely mentally ill or long-term clients with higher levels of adaptive functioning who were more easily discharged into the community (Haines & Abbott, 1986). In contrast, chronically mentally ill clients typically have poorer outcomes. These clients' experience frequent symptom relapses and suffer from a cluster of chronic deficits that impede social functioning within the community (Shadish et al., 1989).

The following questions have been highlighted by other researchers as being important in assessing the impact of deinstitutionalisation on chronically mentally ill clients and form the basis of the present study's inquiry. Are clients who are chronically mentally ill better off living in the community? What client characteristics are associated with better community adjustment? Which clients are at risk? Does sufficient support follow clients from the hospital into the community? What types of community services do the clients use and does the use of services change over time? How satisfied are clients with community living? Research in this area may provide worthwhile and practical insights into the affects of transferring long-stay psychiatric clients to the community, in New Zealand.

Chapter 1 presents a brief overview of the development of deinstitutionalisation and the continuing debate over its effectiveness. Problematic areas identified by previous research suggest that attention should be directed toward assessing mentally ill clients' quality of life, social integration, neglect, and whether patterns of brief recurrent psychiatric admissions develop. Although evidence concerning the benefits of deinstitutionalisation for chronically

mentally ill clients remains unclear, deterioration can be prevented if these clients' are provided with ongoing community care and supervision. Next, Kemp's (1990) framework for evaluating the process of deinstitutionalisation is outlined and methodological recommendations are suggested to counteract inadequacies found in previous research. Specifically, longitudinal research strategies and multidimensional outcome measures are recommended. The chapter concludes by describing the advantages and limits of various outcome criteria and methods used to assess the success of deinstitutionalisation.

Chapter 2 summarises the research findings on predictor variables for community adjustment using the outcome criteria described in Chapter 1. Given that prior research has tended to overemphasise environmental factors the review focuses on client characteristics. With respect to client characteristics, research showed that maladaptive behaviour and deficient social and self-care skills were particularly incompatible with community adjustment. Older clients tended to remain longer in the community but exhibited poorer social adjustment than younger clients. Research on environmental factors found successful community programmes provided ongoing services carefully targeted to the individual's needs. These variables were key factors in maintaining stable functioning and housing for chronically mentally ill clients. Because the present sample received similar services to those reviewed, it was hypothesised that they would not deteriorate when transferred to community placements.

Chapter 3 provides an in-depth review of consumer perspectives on community living. The review focuses on potential difficulties in assessing life and consumer satisfaction. Despite the problems in examining client perspectives, they are generally considered an important part of assessing the success of deinstitutionalisation. It has been argued that ignoring client opinions creates a biased impression of their community adjustment tilted towards the provider's or evaluator's perspective. A summary of the research findings on psychiatric individuals' satisfaction with life and mental health services is provided. A description of the present study and its objectives is then presented.

CHAPTER 1

OVERVIEW OF DEINSTITUTIONALISATION

The development of deinstitutionalisation

The development of deinstitutionalisation was the product of many converging forces. The ideology of deinstitutionalisation began during World War II, at which time the notions of preventative care and environmental determinism began to shape psychiatric models of behaviour and care (Mechanic & Rochefort, 1990). The postwar social psychiatry movement in Europe created open wards that promoted "therapeutic communities", blurring traditional authoritative roles and abandoning traditional hospital restraints. These open wards enabled some mentally ill people to be discharged and were the first evidence of deinstitutionalisation (Segal & Aviram, 1978; Warner, 1989). During the mid 1950's deinstitutionalisation became more feasible with the introduction of antipsychotic drugs that allowed effective outpatient treatment for some psychiatric conditions. Deinstitutionalisation was propelled further by the civil rights movement and public persuasion that rallied for individual and minority group empowerment (Grob, 1991).

Factors contributing to the development of deinstitutionalisation in New Zealand were similar to social and economic forces found overseas. There was growing concern over the detrimental affects of mental hospitals. Clients residing in mental hospitals tended to be stigmatised and community treatment was theorised to alleviate this stigmatisation (Haines & Abbott, 1986). Institutions tended to treat clients using a medical model of illness that encouraged clients to adopt a sick role. The medical model's goal was to cure the illness and this approach often disempowered individuals in the process (Gordon & Sheehan, 1986). Other influential forces in changing government policies included serious overcrowding of psychiatric hospitals, the need for community services, and financial incentives for reducing public expenditures (Mason et al., 1988).

In New Zealand the process of deinstitutionalisation has gathered momentum over the past 40 years but proceeded at a slower rate than overseas trends. The expansion of institutional care was not restricted until 1974 when the New Zealand Department of Health placed a moratorium on the allocation of further beds in psychiatric hospitals (Haines & Abbott, 1986). This was 11 years after the Community Mental Health Centres Act was passed in the United States, which aimed to minimise institutional care (Mechanic & Rochefort, 1990).

Debate about deinstitutionalisation

The deinstitutionalisation movement has been met with both reproach and commendation. Nevertheless, among critics and advocates there is a general consensus that the initial high humanitarian expectation has not been met in many cases, especially for chronically mentally ill clients (Haines & Abbott, 1986; Smith, Schwebel, Dunn, & McIver, 1993). The following criticisms provide insight into areas that need special attention when evaluating the deinstitutionalisation process. Evidence is then provided to show that community care can be effective for psychiatric clients. Although this effectiveness is not as substantial for long-stay chronic clients compared to less impaired individuals, evidence suggests that smaller gains can be found and deterioration prevented.

Some critics believe that deinstitutionalisation procedures were politically driven to ease public costs rather than being client focused (Marcos, 1990; Mechanic & Rochefort, 1990). Critics have also accused community programmes of being miniaturized institutions within the community (Scull, 1985), leading some authors to relabel the process of deinstitutionalisation as one of transinstitutionalisation (Bellack & Mueser, 1986; Kruzich & Berg, 1985).

Others have accused community care of failing to rectify old problems. These problems include failure to provide sufficient alternative community homes, to improve the mentally ill's quality of life, and to reintegrate mentally ill people into the community (Shadish et al., 1989). The reintegration of the mentally ill into the community was one of the primary

goals of deinstitutionalisation. It was assumed merely living in the community would bring about social integration for mentally ill clients. Unfortunately, it has been found that most remain unemployed and ostracised from the community (Bellack & Mueser, 1986). For example, the Team for Assessment of Psychiatric Services (TAPS), set up to monitor the closure of two large psychiatric hospitals in North London, found clients to have no increase in the size of their social networks one year after discharge into the community, and that client networks largely consisted of professional and other psychiatric client contacts (Leff, 1992). Other studies evaluating the transfer of former inpatients to community care have also found them to have little contact with friends and family in the community (e.g. Brugha et al., 1988; Francis, Vesey & Lowe, 1994).

Similar findings have been reported in New Zealand. Macmillan, Hornblow, and Baird's (1992) study found that chronically mentally ill clients tended to remain socially isolated 18 months after they had been transferred to the community. Over the 18 month period clients generally had poor contact with their neighbours, over 50% had no contact with outside friends, and nearly a third had no contact with family or relatives. This led Macmillan and associates to conclude that if community support were retracted for chronically mentally ill clients, neglect would be likely to occur. Psychiatric clients transferred from Sunnyside Psychiatric Hospital, Christchurch, to the community were found to have similar frequencies of contact with family and friends (Sheerin & Gale, 1984).

Another criticism of deinstitutionalisation is that it has resulted in the decentralisation of health care services to clients. Clients' basic needs are no longer provided for in a single setting as they were in psychiatric hospitals. Some argue that this leaves mentally ill clients with the task of meeting their own needs and coordinating between community services, when many lack adequate social and self-care skills to accomplish these tasks without assistance (Burns, Barrett, Daley, Duignan, & Saville-Smith, 1994; Smith et al., 1993).

Aviram (1990) further maintains that the discharge of mentally ill clients into the community was not necessarily followed by improved services. Deinstitutionalisation has been reported to result in discharged clients developing patterns of several short periods of inpatient treatment, known as the revolving door syndrome, while others are left homeless or confined to prisons (Bellack & Mueser, 1986; Smith et al., 1993).

New Zealand authors Trenberth, Taylor, and Walkey (1990) have similar views on deinstitutionalisation. They maintain that deinstitutionalisation in New Zealand, like other countries, has resulted in former mentally ill inpatients being unable to cope in the community, remaining socially isolated, and supportive health services being delivered in a fragmented fashion. One explanation for these difficulties is the lack of communication between different professional disciplines which prevents the development of cooperative approaches (New Zealand Board of Health, 1987).

New Zealand trends also show that readmission numbers have risen substantially as bed numbers in psychiatric institutes have declined (Haines & Abbott, 1986). For example, male schizophrenics have had a 23% increase in readmissions from 1991 to 1992, and an overall rise of 56% since 1974. Female schizophrenic clients have shown steady readmission rates until 1992, where readmissions increased 20% over a one year period (Ministry of Health, 1993).

More recently in New Zealand, concern over community care of people with mental disorders has become increasingly noticeable in the news. The increased concern over reports of neglect, and the shooting by police of an ex-patient in Invercargill in October 1995 and another in Whangarei in November 1995, has evoked an inquiry into the mental health services in New Zealand (MacLennan, 1995). These findings suggests that deinstitutionalisation in New Zealand incurs similar problems as those found overseas.

Even professionals in favour of deinstitutionalisation maintain that the mere discharge of mentally ill clients into the community is insufficient to bring about desired improvements. Among these professionals it is generally agreed that community based care can be effective for former inpatients if it is carefully planned and targeted, and appropriate supervision or guidance is maintained (Macmillan et al., 1992; Thornicroft & Bebbington, 1989).

Evidence for the effectiveness of community care over hospital treatment is found in Kiesler and Sibulkin's (1987; cited in Mechanic & Rochefort, 1990) review of 14 experimental studies which mainly used random assignment. Two Australian outcome studies also confirm promising results, but their reported effects were possibly overestimated and acute mentally ill samples were used as opposed to chronic samples (Hoult & Reynolds, 1984; Hoult, Reynolds, Charbonneau-Powis, Weekes, & Briggs, 1983).

Evidence concerning the benefits of deinstitutionalisation for long-term clients who are chronically mentally ill is less clear. For example, Francis et al.'s (1994) thorough four to five year study of the closure of a psychiatric hospital in Nottinghamshire, England, portrays the typical outcome for long-term chronically mentally ill clients. Extensive baseline and follow-up data were collected for 90 clients largely diagnosed as schizophrenic, with an average age of 63 years and an average length of prior hospitalisation of 18 years. Significant changes were found for a few subjects whose behaviour improved or deteriorated following their resettlement. However, most clients showed no significant behavioural changes after being transferred to appropriate community housing.

The TAPS project also found that long-term mentally ill clients neither deteriorated nor improved on social and clinical outcome variables when carefully placed into supervised living arrangements. However, at one year follow-up two important improvements were found. First, clients were living in far less restrictive settings and second, clients significantly preferred community homes compared to the hospital (Leff, 1992).

New Zealand research is consistent with these findings. Macmillan et al. (1992) evaluated the planned movement of "tail end", long-stay chronically mentally ill clients from Sunnyside Hospital into staffed community accommodation. Comprehensive community support was offered, whereby houses were staffed 24 hours a day except one unstaffed house within the hospital grounds where residents maintained close contact with hospital staff and services. The mean age of clients was 47.4 years with a median current length of stay of 3.3 years. Hospital baseline assessments were completed and clients followed in the community over 18 months. Macmillan and associates found client social skills and psychiatric symptomatology remained unchanged 18 months after they left the hospital. The number of community resources used by clients tended to decrease over 18 months, except contacts with psychiatrists, general practitioners, and voluntary agencies. Rehospitalisation and relapse rates were low, although relapse rates had a higher occurrence than rehospitalisation. Frequency of rehospitalisation was 1%, 2%, and 0%, for each successive six-month period. This shows that the revolving door syndrome of frequent rehospitalisations, repeatedly reported as an adverse consequence of deinstitutionalisation, had not taken place for this highly supported group.

In short, the uncertainty of whether deinstitutionalisation is effective for long-stay chronic psychiatric people indicates the need for outcome evaluation to monitor their progress in the community. The above problems noted by critics highlight specific areas that outcome evaluations need to monitor, such as insufficient community housing and supervision, a failure to improve clients' quality of life, and homelessness or revolving door patterns. The process and methods of outcome evaluation are detailed below.

Outcome evaluation of deinstitutionalisation

Kemp (1990) has proposed a comprehensive model for deinstitutionalisation planning which provides a useful guide for evaluating the process of deinstitutionalisation. The model consists of four processes: policy analysis, implementation planning, discharge planning, and impact and outcome analysis.

Policy analysis evaluates the formulation of new mental health policies. It helps identify potential problematic areas within the government policy system and lays out general guidelines for the implementation process (Kemp, 1990).

The implementation plan follows the general guidelines developed by the policy analysis but is individually tailored for each institution and community involved in the discharge process. The implementation plan involves identifying the needs for the population being discharged and a description of all available community resources. A coordination plan follows, bringing about a match between client needs and available facilities. Finally, a quality assurance plan is used to monitor and supervise the dynamics of the programmes' processes, which can be fed back into the policy analysis (Kemp, 1990).

Kemp's (1990) discharge planning involves individual assessments of clients' functioning and needs. Clients are assigned a case manager or key worker who oversees the placement of the client, ensuring they receive all planned services. Each client should have an individual treatment or programme plan, which may be based on professional evaluations and standardised instruments and is formulated through a consultive process with the client's family/whanau and significant others. The discharge plan should parallel the best facilities and services identified in the coordination plan. Unmet needs should remain in the individual's programme plan until new resources become available. Kemp's conceptualisation of discharge planning is consistent with the guidelines specified by the New Zealand Ministry of Health (Ministry of Health, 1993) and recent research suggests it is functional (Deane, Huzziff, & Beaumont, 1995).

The fourth process in Kemp's (1990) model, impact and outcome analysis, aims to identify the impacts of the system policy changes brought about through implementation of the policy analysis. Outcome analysis allows problematic areas within the deinstitutionalisation planning process to be identified, which in turn can be fed back into mental health policy formulations. Outcome analysis facilitates continuous improvements in the process and

outcome of deinstitutionalisation. Although the success of deinstitutionalisation may be dependent on any one of Kemp's four stages, the present study is primarily concerned with impact and outcome analysis.

Kemp's (1990) model regards outcome analysis as an evolving process that should not be addressed as a static entity. Several authors support this approach, maintaining that community adjustment among former mentally ill inpatients is a process that occurs over time, recommending the employment of longitudinal evaluation strategies (e.g., Avison & Speechley, 1987; Francis et al., 1994). Longitudinal research involves following subjects prospectively over time and has been considered the most powerful field research design (O'Driscoll, 1993). Longitudinal research also has the unique advantage of monitoring client variations and changes over time as well as providing a stronger basis for establishing causal relationships.

The use of sufficient follow-up periods has also been emphasised because short-term impacts of deinstitutionalisation may not be sustained over longer periods of time (Bigelow, McFarland, Gareau, & Young, 1991). For example, Farkas, Rogers, and Thurer's (1987) five year study of 54 chronically mentally ill clients on long-stay wards in a Massachusetts state hospital found clients' community adjustment fluctuated over time. The clients showed initial improvements in their independent functioning which levelled off and was followed by a tendency for them to return to less independent living.

The need for ongoing outcome evaluation is also emphasised by those who recognise that services implemented may differ from those legislated, planned, and funded (Bigelow et al., 1991). Implementation theorists acknowledge that the policy and actual execution of that policy are often different because political and economical restraints have an overriding influence on what actually happens (Shadish et al., 1989). Therefore, continual outcome evaluations have the advantage of detecting discrepancies between ideal services and those

services provided or used by clients, and of identifying changes in the use of services over time.

Despite the emphasis of using ongoing outcome evaluations, a criticism of many outcome studies has been the use of inadequate or no follow-up periods. Longitudinal designs can be expensive, time consuming, and problematic which may attribute to their infrequent use. For example, sample mortality is one difficulty particularly inherent to longitudinal research and includes subjects dropping out, being lost due to tracking difficulties over time, and having more opportunities to refuse to continue participation (Avison & Speechley, 1987; O'Driscoll, 1993; Thornicroft & Bebbington, 1989).

A multidimensional approach to outcome assessment

Community adjustment is a broad term frequently used to describe and measure the outcome of deinstitutionalisation. However, previous research has lacked clear meanings and measurements of community adjustment. To counteract this problem, Avison and Speechley (1987) have proposed that adjustment should be conceptualised within a normative framework. Normalisation theory maintains that impaired individuals should be offered the least restrictive alternatives for everyday living. Its goal is to allow people who are mentally ill to obtain an existence as close to an autonomous adult life as possible. Accordingly, successful community adjustment has been defined as a person's ability to live independently of custodial, long-term care (Lurigio & Lewis, 1989). Community adjustment has further been described as an individual's ability to perform socially expected roles, such as everyday living activities and participation in and use of community resources (Sommers, 1988). Normative assumptions also consider community adjustment to be better for discharged psychiatric individuals if they are more productive or active than idle, and when they are involved with others in social relationships rather than being isolated (Avison & Speechley, 1987).

These normative assumptions denote that community adjustment is a complex variable that encompasses several dimensions of living. Accordingly, several assessment methods are used to assess chronic mentally ill clients' adjustment, with no one measure being perfect. This multidimensional approach is supported by Baker and Hall (1983) who maintain that more than one type of assessment method is required for a comprehensive evaluation because different measures explore different aspects of behaviour in different circumstances. Brewin, Wing, Mangen, Brugha, and MacCarthy (1987) also recommend the use of standardised instruments that measure a variety of symptoms or behaviour problems, and personal and social skills.

Further evidence for including multidimensional outcome measures comes from factor analysis which has found at least four dimensions of community adjustment: recidivism, symptomatology, social integration, and subjective well-being, which are largely independent of each other (Bootzin, Shadish, & McSweeny, 1989). Because these four outcome domains are relatively independent, multidimensional research strategies are necessary. The exclusion of one or more dimensions is likely to result in the researcher ignoring significant aspects of outcome. In spite of the evidence for including several measures of client adjustment, a criticism of previous research is that it has seldom employed a full range of social, clinical, and service usage outcome variables (Thornicroft & Bennington, 1989). Consequently, the present study will focus on multiple measures of community adjustment.

A review of the literature shows numerous types of outcome measure are used to evaluate community adjustment. Avison and Speechley (1987) provide a good summary of the more commonly used outcome criteria. In their comprehensive literature review, they found six primary outcome criteria. However, only four of these will be discussed. Avison and Speechley's "global rating" category includes a combination of their other outcome measures and consequently will be omitted because it is redundant. Measures of "role performance" are excluded because this variable tends to be included under measures of

social functioning or adaptation by other researchers (e.g. Bootzin et al., 1989; Segal & Kotler, 1993).

The most commonly used outcome criteria for assessing the success of deinstitutionalisation is readmission to a psychiatric ward during a specified follow-up period (Avison & Speechley, 1987). The second outcome criterion, "community tenure", is assessed either by the proportion of time spent in the community after discharge, or by its inverse relationship, the proportion of time spent rehospitalised. Both these objective measures have the advantage of being reliable and not being influenced by judgemental distortions. However, a disadvantage of these criteria is that they fail to elucidate the meaning behind client readmissions or why some clients are unable to remain in the community. Furthermore, Kearns (1990) has labelled community tenure and rehospitalisation as measures of system outcome rather than indicators of the client's ability to cope in the community. Hence, although these measures assess community adjustment, they shed little light on the actual process of community adjustment, which is the major strength of the following outcome variables.

The third outcome criterion highlighted by Avison and Speechley (1987) is social adjustment or integration. Social integration has been defined by Bootzin et al. as the "extent to which mental patients engage in normative social behaviour" (1989, p.34). Social integration has been assessed through the quantity and quality of interaction with other people, such as employment, participation in social activities, uses of community resources, spending money, and frequency of contact with friends and family (Avison & Speechley, 1987; Lurigio & Lewis, 1989; Segal & Kotler, 1993).

The fourth commonly used outcome criterion involves current levels of symptoms and encompasses any measures of symptomatic behaviour (Avison & Speechley, 1987). In previous research such measures have typically included behavioural rating scales of psychopathology (e.g. Baker & Douglas, 1990; Bootzin et al., 1989).

In addition, the assessment of subjective well-being or quality of life among discharged psychiatric clients has become increasingly emphasised as an important outcome criterion for measuring the success of deinstitutionalisation (e.g. New Zealand Board of Health, 1987; Simmons, 1994; Sylvester & Bean, 1989). It is proposed that the assessment of client perspectives has the added advantage of revealing aspects of the nature of community adjustment that other informant driven measures cannot tap (Kearns, 1990). Further support for including measures of well-being come from the World Health Organisation whose definition of mental health includes well-being as part of its criteria (1988; cited in New Zealand Department of Health, 1989). Wykes (1992) also emphasises the benefits of assessing client attitudes towards services as a guide to their usefulness. Furthermore, the assessment of consumer satisfaction with services fulfils the increasing need for accountability to the consumer (Watson, 1993).

The above outcome measures are generally obtained from three types of resource: records held on file, third party or informant completed assessments, and self-report measures. Records are commonly used to obtain demographic and readmission data. Records provide extensive objective data but are limited by a lack of detail to more subtle parameters of community adjustment (O'Driscoll, 1993).

There are two primary forms of informant completed assessment, one based on an interview format and the other based on observation of typical everyday behaviour. The latter, called behavioural rating scales, is subject to fewer distortions associated with face to face interviews. In support of the use of behavioural rating scales, Baker and Hall (1983) found these scales to be the most commonly used method in British research for assessing clients who are mentally ill, leading them to conclude that these scales should be included in any research project.

Opinions regarding the use of self-report measures are not so favourable. Some disagreement exists over the viability of self-report measures when obtained from clients

who are chronically mentally ill. On the one hand, it has been argued that people with schizophrenia are inaccurate reporters of information about themselves. Bellack (1989) maintains that people with schizophrenia exhibit thought disorders, have difficulties in information processing, reading, comprehension, communication, and concentration, which interfere with their responses limiting the validity and usefulness of self-report data. It is also argued that because clients who are mentally ill tend to show little insight into, and are relatively uninformed about their illness, they cannot demonstrate an informed choice concerning treatment settings, resulting in self-report measures of consumer satisfaction being of little use (Corrigan, 1990). Some research suggests this is a possibility. For example, Jones, Robinson, and Golightly (1986) interviewed 50 chronically mentally ill clients who resided in the community following long hospital admissions. Their sample predominantly included clients diagnosed with schizophrenia and older clients with organic conditions. They found the sample mainly unable to respond to the questions asked. However, the inclusion of older clients with organic conditions may have partially accounted for these findings.

In contrast, other researchers argue that client perspectives offer the advantage of revealing insight into the nature of community experiences as opposed to the duration of community stay and other objective measures. Moreover, by excluding client opinions one tends to form an incomplete evaluation biased towards the provider's or evaluator's perspective (e.g., Larsen, Attkisson, Hargreaves & Nguyen, 1979; Lebow, 1983; Simmons, 1994). Further justification for including client perspectives is provided in Chapter three.

In conclusion, deinstitutionalisation developed from concern over traditional hospital treatment but resulted in its own potential problems, especially for chronically mentally ill clients. Such problems included homelessness, revolving door patterns, a failure to improve clients' quality of life, and poorly planned aftercare. Kemp's (1990) comprehensive model provides a framework for evaluating the process of deinstitutionalisation and helps identify whether these problematic areas occur. This model emphasises outcome evaluation as an

ongoing process and, ideally, longitudinal designs should be used. Furthermore, evidence suggests a multidimensional approach is needed for a comprehensive evaluation of clients' community adjustment, which is considered to encompass multiple facets. The more commonly used outcome measures of community adjustment include readmissions to a psychiatric ward, community tenure, social adjustment, current levels of symptomatology, and subjective well-being. Each outcome measure has its advantages and disadvantages, with no single criteria able to provide a complete evaluation. Instead, a combination of outcome variables is recommended. Nevertheless, much research has been criticised for not incorporating adequate follow-up periods, multiple outcome measures, or both. Consequently, one of the goals of the present study was to address these limitations.

CHAPTER 2

PREDICTORS OF COMMUNITY ADJUSTMENT

Chapter one, the "debate about deinstitutionalisation" section, revealed a wide range of outcomes for clients, ranging from neglect and homelessness (Smith et al., 1993) to effective community living (Macmillan et al., 1992). This variance in outcome for community adjustment among discharged clients who are chronically mentally ill has been attributed to two main areas: client characteristics and environmental factors, such as type of housing or aftercare provided.

Research has predominantly focused on environmental factors in assessing community adjustment, with the result that the role of client characteristics has been overshadowed. However, the importance of examining client characteristics has been underscored by Avison and Speechley (1987). They maintain that knowledge of client characteristics is beneficial in assisting mental health workers with the early identification of clients who are at risk of maladjustment. The identification of clients at risk can allow service providers to tailor community programmes to meet client needs and safety nets can be put in place.

"Psychiatric characteristics"

Avison and Speechley (1987) group previous hospitalisation history, diagnostic information, and symptom severity ratings under a "psychiatric characteristics" category. Their literature review showed that many studies found a relationship between clients' hospitalisation history and readmissions, and adaptive functioning. Therefore, longer hospitalisation histories were associated with more readmissions to psychiatric units and lower adaptive functioning. Avison and Speechley also found hospitalisation history to be related to poorer outcomes on social adjustment measures. However, this relationship tended to disappear after extended follow-up periods.

Research on individuals' psychiatric diagnosis and community adjustment is sparse. However, a diagnosis of schizophrenia seems associated with more frequent rehospitalisations (Avison & Speechley, 1987).

Clients who are more severely mentally ill tend to show poorer community adjustment (Haines & Abbott, 1986; Shadish et al., 1989). Specifically, clients who exhibit more hostile and maladaptive behaviour which offend others tend to be more frequently rehospitalised, have briefer lengths of stay in the community, be more socially isolated, and show poorer levels of social adjustment (Avison & Speechley, 1987; Tessler & Manderscheid, 1982).

Consistent with these trends, Patrick and Holloway (1990) found four primary client characteristics to be associated with poor outcomes in a study that followed 21 long-stay psychiatric clients over two years. Clients with poor outcomes tended to be male and have longer prior hospitalisation periods, the presence of a physical disability, and a secondary diagnosis, especially personality disorders or drug or alcohol abuse.

Social and everyday living skills

Social and everyday living skills have consistently been associated with better community adjustment (e.g. Avison & Speechley, 1987; Kruzich & Berg, 1985; Presly, Grubb, & Semple, 1982). Social skills include those that enhance interactions with others. Everyday living skills encompass any skill required to survive independently in the community, such as grooming, maintaining adequate hygiene, cooking, cleaning, and shopping (Bellack & Mueser, 1986).

Social skills have been related to several outcome variables of community adjustment including readmission rates, independent living, and severity of psychiatric symptoms. For example, several studies reviewed by Avison and Speechley (1987) found clients who had better social skills, such as those who were more involved in leisure activities or had

frequent contact with friends and relatives, were more successful at staying out of hospital and had higher levels of adaptive functioning. Kruzich and Berg (1985) found social involvement, assessed by the client's frequency of contact with family, relatives, and friends outside the facility, to be significantly related to higher levels of self-sufficiency. Self-sufficiency was defined as the ability to accomplish tasks necessary for independent living. Finally, the amount of time that mentally ill clients are involved in activities has been related to their level of symptomatology, whereby symptoms escalate if clients are under stimulated and bored (Thornicroft & Bebbington, 1989).

Everyday living skills are considered necessary for individuals to live independently of custodial care. Research shows that a deterioration in the ability to perform daily living activities, commonly called instrumental performance, is associated with poor outcomes (e.g. Bellack & Mueser, 1986; Tessler & Manderscheid, 1982). Self-care skills were found to be particularly important for successful community adjustment. For example, in a three to four year follow-up study of a rehabilitation programme for long-term mentally ill clients, successful transition into the community was dependent on self-care skills, such as care of clothes, money management, and cooking ability (Presly et al., 1982).

Further evidence that everyday living and social skills are important for successful community adjustment comes from Linke and Taylor's (1987) study. They found clients residing in the community to have higher social activity, self-care skills, and community skills compared to hospitalised clients. In addition, community treatment programmes that emphasise training in living and social skills have resulted in improved general adaptive functioning, increased client satisfaction, and a reduction in the use of psychiatric hospitals (Morse, Calsyn, Allen, & Kenny, 1994; Olfson, 1990; Test, 1981).

The finding that deficient social and everyday living skills and high levels of maladaptive behaviour (see "psychiatric characteristics" section), inhibit community adjustment is consistent with research on chronically mentally ill clients that are difficult to place in

community residences. In a study of 81 "hard-to-place" mentally ill clients the typical "hard-to-place" client was described as "a schizophrenic male in his 30's with either a medical or a drug abuse problem. He has lost most social and self-care skills, is assaultive, behaves unacceptably, and is not cooperative with treatment" (Bigelow, Cutler, Moore, McComb, & Leung, 1988, p.184). Frequently occurring behaviours deemed to be particularly incompatible with community placement included little or no self-care skills (80%), poor social skills (98%), assaultive behaviour (62%), and loud outbursts (62%) (percentage of clients exhibiting behaviour in brackets).

Fairley, Siegert, Simpsom, Wilson, and Roach (1993) conducted a similar study on 137 long-stay psychiatric clients residing at Porirua Hospital near Wellington, New Zealand. They found clients who remained in traditional hospital settings to have a median length of hospitalisation of 14.5 years with the typical client being a single, white, schizophrenic male who is middle aged to old. The most frequently occurring deviant behaviours, as measured by the Rehabilitation Evaluation Hall and Baker (REHAB) Deviant Behaviour scale, were verbal aggression (40%) and talking to oneself (36%). Fairley et al.'s sample of older clients is more representative of the present study's sample. They investigated clients who had not yet been transferred to the community as a result of the deinstitutionalisation movement, whereas Bigelow et al. (1988) focused on new generation long-stay psychiatric clients.

A similar study to Fairley et al. (1993) assessed the functioning of 12 long-stay psychiatric clients who were unable to be transferred to community placements due to their high levels of aberrant behaviour and inadequate social and self-care skills (Hall, Deane, & Beaumont, 1995). This group remained hospitalised 18 months after the first group of clients had been transferred to community placements (Deane et al., 1995). The 12 inpatients were selected for a behavioural based treatment programme to modify social and self-care deficits and inappropriate behaviour considered incompatible with community placement. As part of the study, hospitalised subjects were compared with the present study's community sample.

Although overlap was found between the samples, hospitalised clients had somewhat lower general functioning, as measured by the REHAB scale. In particular, hospitalised clients exhibited lower social skills, more violent or destructive behaviour and more antisocial behaviour than the community sample.

In summary, longer hospitalisation histories were associated with more frequent admissions and were somewhat correlated with poorer outcomes of social adjustment (Avison & Speechley, 1987). More importantly, clients exhibiting maladaptive behaviours or traits that offend others have been found to be more frequently rehospitalised, more socially isolated, and to have poorer levels of social adjustment (Avison & Speechley, 1987; Tessler & Manderscheid, 1982). Other adaptive behaviours considered essential for community adjustment included self-care skills and social skills, such as contact with others outside the residence (Avison & Speechley, 1987; Kruzich & Berg, 1985; Linke & Taylor, 1987; Presly et al., 1982). These behaviours have been found in "hard-to-place" clients, with aggressive or assaultive behaviour, loud outbursts, and poor social and self-care skills being commonly reported (Bigelow et al., 1988; Fairley et al., 1993; Hall et al., 1995). Therefore a poorly adjusted client may be described as having deficient social and self-care skills and high levels of deviant behaviour.

The affect of age on community adjustment

Although the impacts of other demographic variables on community adjustment have been investigated, age seems the most prominent variable that influences client adjustment. The client's sex, race, and marital status have generally not been found to be associated with measures of community adjustment (Avison & Speechley, 1987; Francis et al., 1994; Presly et al., 1982).

Although mixed results have been found when assessing the relationship between age and community adjustment measures, a trend appears to be emerging that warrants further investigation. That is, older psychiatric clients who have been transferred from hospital to

community residences appear to remain in the community for longer periods. In contrast, younger clients appear to be more frequently hospitalised but better socially adjusted than older clients (Avison & Speechley, 1987; Sommers, 1988).

Other comparison studies confirm this tentative relationship between age and community adjustment. For example, Kruzich and Berg (1985) assessed 87 former mentally ill inpatients residing in the community at 32 months after discharge from a Washington state hospital. They found age to have a significant moderate correlation with self-sufficiency, whereby older clients tended to be less self-sufficient. Self-sufficiency was defined as the ability to accomplish tasks necessary for independent living.

In a more recent study, involving 382 psychiatric clients discharged from a Pennsylvania state hospital, older clients were found to have longer community tenures at six months follow-up (Hadley, McGurin, & Fye, 1993). Although Hadley et al. found age to be one of the best predictors of community tenure, age only accounted for a small amount of the variance. Older clients also tended to reside in boarding homes rather than rehabilitation, family, or independent placements. Consequently, the type of residential setting may have partially accounted for these findings.

Although it is important to examine differences among age groups it is equally important to investigate the general affect of deinstitutionalisation on older longer-term mentally ill client groups who have tended to be ignored in previous research (Farkas et al., 1987). Farkas et al.'s review of earlier studies investigating older discharged chronically mentally ill clients indicated that these clients fail to demonstrate residential or vocational success in the community and lack functional behaviours or skills. These findings were further supported by Farkas et al.'s five year follow-up study of 54 severely psychiatrically disabled clients who were to be placed in supervised community settings. Most clients were diagnosed as having schizophrenia and had been hospitalised for a mean of 16 years. They found only 17 clients could be discharged to community placements over the five-year period and only

eight of these clients remained in the community continuously. Clients living in the community tended to function as they had in the past with their vocational and life skills showing no significant change over time. Nevertheless, clients in the community exhibited better life skills than their cohorts who remained institutionalised and life skills were a significant predictor of independent living (as in Deane et al., 1995).

Bootzin et al. (1989) found similar results for older chronic mentally ill clients transferred to nursing homes. Clients were unlikely to achieve independent living and less than half reported having friends outside the facility. Undesirable effects were also reported in that clients exhibited an increase in negative behaviour and a reduction in positive behaviour, which were indicative of less activity and less concern with personal appearance.

More promising results have been found for a sample of 40 older clients who were transferred from a London psychiatric hospital into community care homes (Knapp et al., 1994). The clients' mean and median age was 79 years, considerably older than other studies samples. The resettlement of clients into community homes led to no significant changes in the sample's level of functioning, subjective well-being, or frequency of family contact, as previous studies have found. However, the number of social contacts was higher in the community than the hospital and clients preferred their community home with a higher proportion wanting to remain there. Both these variables were not assessed in the previous two studies.

In summary, older clients tend to remain longer in the community but exhibit poorer social adjustment than younger clients (e.g. Avison & Speechley, 1987; Hadley et al., 1993; Kruzich & Berg, 1985). Typically old chronically mentally ill clients show no changes in their behaviour or, worse, deteriorate after being transferred from the hospital to the community and intensive community support is recommended, as it is for many younger chronically mentally ill clients (e.g. Farkas et al., 1987; Knapp et al., 1994).

Environmental influences on community adjustment

The evaluation of community resources aids understanding of the types of services used to assist psychiatric clients to adjust to community living. It is generally agreed that successful community programmes have continuous treatment teams that provide outreach services, long-term housing assistance, and intensive case management (e.g. Bellack & Mueser, 1986; Bigelow et al., 1991; Taylor, 1990; Thornicroft & Bebbington, 1989). Time-limited models of treatment have been found ineffective with chronically mentally ill clients.

Termination of various programmes have resulted in increased rates of recidivism, a loss of previous gains in social functioning, and reversal of many other treatment gains (Test, 1981).

Evidence for the effectiveness of community programmes that use continuous treatment team approaches is found in Morse et al.'s (1994) study. They found this approach to be superior to day treatment and outpatient therapy in assisting the homeless mentally ill to remain in stable community housing and in increasing clients' levels of satisfaction with their treatment programme. Olfson's (1990) literature review found similar findings for continuous and supportive community treatment programmes. Chapter One also showed that ongoing support helped prevent chronically mentally ill clients' behaviour from deteriorating.

In addition, a ten-year follow-up study of community sheltered care found that clients who remained in this type of care for longer periods had fewer psychiatric and physical symptoms and were more likely to engage in assisted social activities than those who spent less time in sheltered care (Segal & Kotler, 1993). Nevertheless, spending more time in protected living environments was associated with a loss of self-initiated participation, uses of community resources, and reduced family contact.

There is also growing recognition that individual needs and competencies should be considered when placing or reassigning clients into sheltered community housing (e.g. Aviram, 1990; Kemp, 1990; Taylor, 1990). This is consistent with the guidelines specified by the New Zealand Ministry of Health (1993) and the Manawatu-Wanganui Area Health

Board (1992). The Manawatu-Wanganui Area Health Board outlines the use of Continuing Care Teams, which ensure clients receive sustained care and treatment tailored to their specific needs by using key workers or case managers.

Evidence supporting the notion that individual needs and competencies should be considered comes from Baker and Douglas (1990) who investigated the relationship between the quality and appropriateness of housing environments and their congruence with client needs. They followed 729 severely mentally ill clients in a state wide community support service programme over nine months and found clients living in housing that were incongruent with their needs exhibited more maladaptive behaviour compared to their counterparts living in suitable housing environments. Clients who shifted from appropriate to inappropriate housing also showed a significant deterioration in global functioning and a reduction in their perceived quality of life. This finding has been replicated by other authors who have found clients' behaviour to deteriorate when residing in inappropriate housing (Hodgins, Cyr, & Gaston, 1990).

In conclusion, community programmes providing outreach services, long-term housing assistance, and intensive case management over indefinite time frames have been found to be successful in assisting mentally ill clients to remain in stable housing and in increasing their level of satisfaction (e.g. Morse et al., 1994). Programmes targeted towards individual clients' needs and competencies were also effective in reducing maladaptive behaviour, and increasing global functioning and life satisfaction (Baker & Douglas, 1990; Hodgins, et al., 1990). Similarly, the present sample was assessed by the Area Health Board's multidisciplinary Needs Evaluation and Assessment Team before being assigned to sheltered community housing (Deane et al., 1995). Continuing Care Teams, using similar principles to those in successful community programmes, were in place for clients who were transferred to the community. Therefore, it seems reasonable to assume that because the present sample received services that were comparable with those found in successful treatment programmes they would not deteriorate when transferred to the community.

CHAPTER 3

CLIENT PERSPECTIVES OF COMMUNITY LIVING

Two areas of client perspectives will be examined in detail, life satisfaction and satisfaction with services. The definitions of each construct will be outlined followed by the rationale for incorporating assessments from client perspectives. Many factors point toward the usefulness of including client ratings, though potential difficulties remain. These limitations are discussed and research findings concerning client satisfaction are summarised.

Defining Life Satisfaction

It is generally agreed that life satisfaction predominantly assesses a person's cognitive judgement of their quality of life (e.g. Andrews & Withey, 1976; Diener, Emmons, Larsen, & Griffin, 1985). Life satisfaction is also conceptualised as the cognitive component of subjective well-being, whereby subjective well-being and quality of life are frequently used interchangeably throughout the literature. Accordingly, Pavot and Diener (1993) define life satisfaction as "a judgemental process, in which individuals assess the quality of their lives on the basis of their own unique set of criteria" (p.164). Using this definition, the criteria used to assess life satisfaction is imposed by the individual rather than by the researcher.

Indicators of life satisfaction or quality of life can be divided into global versus specific domains, and subjective versus objective domains (Lehman, 1983). Global indicators of life satisfaction inquire about life in general. This is considered important because although some agreement exists about the fundamental components of a good quality of life, different individuals are likely to assign different values to each component and have their own ideas of what constitutes success (Diener et al., 1985). Simmons (1994) also acknowledges that more global approaches are usually taken within the mental health field because the nature of mental-ill health has an impact on many areas of a person's life. Simmons maintains that, although the assessment of specific domains of client well-being can provide useful

additional information, scales that focus on specific symptoms, distress, and disabilities, ignore the broader affects of mental illness and therefore are inappropriate if used alone.

Objective measures, which are relatively easy to obtain, assess external life circumstances, such as frequency of social relations, physical health, work status, and quality of housing. In contrast, subjective measures assess clients' perspectives on their quality of life. Objective measures have been found to be only marginally related to a person's subjective experience (Lehman, 1983; Lehman, Possidente, & Hawker, 1986). Consequently, asking clients to report how they feel about their lives remains imperative.

Defining Consumer Satisfaction

Lebow (1983) classifies consumer satisfaction into broad and narrow definitions. The narrow definition of client satisfaction is "the extent to which services gratify the client's wants, wishes, or desires for treatment" (Lebow, 1983, p.212). The broader approach includes any indirect measures that correlate highly with self-report assessments of satisfaction, such as spontaneous complaints about treatment, premature terminations, and treatment outcomes. However, this broader conceptualisation of consumer satisfaction introduces problems in that it uses indirect measures. For example, premature termination may not necessarily be equated with dissatisfaction; rather, it may indicate transportation difficulties, improved functioning, or time constraints.

Another distinction made in the study of consumer satisfaction is whether the construct is unidimensional or multidimensional. Those who subscribe to the unidimensional theory maintain that clients form an overall impression of satisfaction (Frank, Salzman, & Fergus, 1977; Larsen et al., 1979). These authors refer to consumer satisfaction as a global construct. Global measures of consumer satisfaction also have the advantage of being applicable to a wide range of settings (Larsen et al., 1979). This is especially important with the present study's sample because they are located in a diverse range of settings. In contrast, multidimensional theory maintains that clients can differentiate between specific

treatment components and independently evaluate them. They also argue that general measures fail to evaluate specific programme components (Grob, Eisen, & Berman, 1978; Lebow, 1982a; Tessler, 1975). However, this seems more pertinent if the objective is to evaluate specific dimensions of particular programmes, which was not an aim of the present study.

Consumer satisfaction is usually assessed by measures specifically tailored to a treatment programme or standardised instruments. Larsen et al. (1979) argue that general standardised measures are preferable to individually tailored measures for several reasons. First, data obtained by individually tailored measures cannot be meaningfully compared with other samples or programmes because one cannot be sure whether these measures assess the same thing. Second, levels of satisfaction obtained in isolation from other data are meaningless. Therefore, there is no way of knowing whether the levels of satisfaction are high, normal or below average unless the same instrument has been validated and used on other samples. Third, tailored measures may not be suitable for evaluating different services used by a particular sample.

Rationale for including client rated measures

As noted in Chapter One, enquiring directly about client perspectives is one method of evaluating the benefits or detriments of deinstitutionalisation on client welfare. The ability of mentally ill clients to provide meaningful information was questioned because of the nature of their illness (Bellack, 1989). However, this argument does not provide an adequate basis for disregarding client perspectives and if ignored a biased impression of clients' community adjustment is likely to be formed (Lehman, 1983; Lebow, 1982a; Simmons, 1994).

Research supports the validity of client perspectives in that psychiatric clients' attitudes towards their quality of care have been significantly correlated with staff opinions (Corrigan, 1990; Larsen et al., 1979; Sheerin & Gale, 1984) and client ratings of

satisfaction have been found to be related to client ratings of improvement (Attkisson & Zwick, 1982). Furthermore, factor analysis shows subjective well-being as a separate dimension of community adjustment (Bootzin et al., 1989). Several longitudinal studies have also reported no change on many social and clinical outcome variables for psychiatric individuals transferred to community placements except for client ratings of satisfaction (e.g. Leff, 1992; Macmillan et al., 1992). These findings help reinforce the need for client perspectives to be included in any evaluation if a comprehensive judgment is to be made concerning community adjustment.

Problems in the assessment of client perspectives

Despite the rationale for including client perspectives in assessing community adjustment, there are some potential problems that need to be acknowledged. These problems include response biases, sampling biases, and confounding variables.

1. Response biases

Response biases in self-report measures have often been reported as a barrier towards the integrity of their use. One problem with assessing satisfaction is the lack of response variability, whereby mentally ill clients constantly report high levels of satisfaction (Larsen et al., 1979). For example, in a comprehensive review of 63 studies on consumer satisfaction, Lebow (1983) found most clients to be satisfied with the services provided by outpatient, inpatient, and crisis facilities. However, Lebow also found in most studies a small group of dissatisfied clients, usually less than 10%, leading him to conclude that dissatisfaction rates above 10% indicates problems. In addition, lower satisfaction scores show that there is some variability in client response rates, refuting the notion of little response variability.

Consumer satisfaction responses may also be inflated by social desirability, client attempts to safeguard their self-interest, and when questionnaires are presented by someone who is part of the treatment programme. To reduce response distortions, Lebow (1982b, 1983)

recommends using an independent evaluator, reassuring clients that assessments are to evaluate services not clients, and emphasising that only group data will be reported, not individual data. In addition, if high levels of satisfaction are taken at face value without comparisons with other data then a problem arises. The data can become misleading and conceal potential problematic areas. Using well established and standardised instruments helps enhance comparisons, enabling the detection of whether satisfaction rates are above, below, or compatible with similar samples.

2. Sampling biases

Sampling biases can occur during the selection of a sample when certain groups of clients are neglected in consumer satisfaction studies. Client groups typically excluded are those who terminate treatment, older clients, and psychotic and illiterate clients believed to be incapable of responding (Lebow, 1982a). However, clients with severe psychopathology may still respond appropriately and Lebow (1982b) recommends removing only those clients with extreme dysfunction.

The second source of difficulty is obtaining good response rates from samples. Lebow (1983) found response rates to vary from 19% to 100%, with an average response rate for evaluations of mental health facilities of 57%. The variability in response rates was found to correspond closely with the method of data collection. Lower rates of response were found for mailed questionnaires and higher rates for interviews. Unfortunately, the more intrusive methods that obtain more favourable response rates are also the most reactive and susceptible to the above response biases. For example, structured interview formats have been shown to inflate satisfaction scores by 10% compared to written questionnaires (Le Vois, Nguyen, & Attkisson, 1981).

Lebow (1983) also reports a number of other factors associated with less favourable response rates. Particularly important was his finding for highly transient populations to have lower response rates, and the length of the satisfaction questionnaire and number of

other measures presented with it to be associated with more refusals. Furthermore, it has been proposed that dissatisfied clients are less likely to respond than satisfied clients (Larsen et al., 1979). From studies reviewing inpatient samples, Lebow (1983) found clients who were more likely to respond had shorter treatments, fewer prior hospitalisations, and better rated outcomes. All these variables have been associated with higher levels of satisfaction. However, the notion that non-respondents are less satisfied than respondents remains to be substantiated.

3. Confounding variables

Research suggests satisfaction ratings reflect some client characteristics in addition to assessing satisfaction. Corrigan (1990) found older psychiatric clients and better educated clients tended to be more satisfied and clients with more serious psychiatric problems tended to be less satisfied with treatment than less impaired psychiatric clients (Corrigan, 1990). Other researchers have also found lower satisfaction among more disturbed clients and clients who were more frequently readmitted to a psychiatric unit (Attkisson & Zwick, 1982; Davis & Gerrard, 1993; Le Vois et al., 1981).

Research findings on client satisfaction and community adjustment

Theoretically, a positive perception of well-being has been linked with a person's ability to develop and obtain their full potential, which in turn, enhances their psychological or mental health (Simmons, 1994). Therefore, deinstitutionalised clients who are more satisfied with life should have better mental health and subsequently be better adjusted than those who are less satisfied. This was found for 77 discharged clients from a psychiatric hospital in Ohio (Sylvester & Bean, 1989). Clients' perceptions of general well-being were the strongest predictor of the length of time clients remained in the community. However, only 50% of the clients responded, suggesting that limitations imposed by response and sample biases discussed above are relevant to this study.

Other research assessing psychiatric clients' perceived quality of life suggests clients residing in the community had more favourable attitudes towards their living situation, felt safer, and had more financial freedom than hospitalised clients, as assessed by objective measures of life satisfaction (Lehman et al., 1986). Subjective measures of satisfaction also showed differences between these groups in favour of community living. However, after controlling for group differences between inpatient and community clients, no difference was found on the subjective measures of life satisfaction. Although externally imposed measures of satisfaction indicated that clients who resided in the community were more satisfied, they themselves did not judge this to be the case. Subjective well-being has also been found to remain unchanged when chronically mentally ill clients are transferred from psychiatric hospitals to community accommodation (e.g. Knapp et al., 1994).

More positive results were found for a sample of 15 long-stay chronically mentally ill clients transferred to a supported hostel in the community (Gibbons & Butler, 1987). Clients quality of life was found to improve in two primary areas, level of activity and quality of social interactions, as assessed by objective measures. Furthermore, client perspectives coincided with these objective outcomes in that clients reported more freedom in the community and no clients wanted to return to the psychiatric hospital.

Clients' subjective well-being has also been related to their reported level of distress. Pavot and Diener (1993) found clients who were less globally satisfied with their lives typically reported more distress.

The remaining outcome studies focus on client satisfaction with services. In assessing whether community settings offer any advantage over hospital settings, one might think that asking mentally ill clients directly about their preference for institutional or community settings may help resolve this issue. However, research on consumer satisfaction has mostly addressed consumer satisfaction with either hospital or community settings rather than client preferences between these two settings. Corrigan's (1990) literature review on consumer

satisfaction found both inpatients and clients residing in the community to be largely satisfied with the services provided, when assessed independently.

The notion that hospital settings are less desirable for consumers than community settings has been questioned by Weinstein (1979). He concluded that this notion was more likely to represent staff misperceptions of client beliefs than clients' actual convictions. Weinstein's comprehensive literature review found professionals' impressions of consumer satisfaction tended to portray a bleak depiction of institutional settings while clients themselves emphasised positive aspects, viewing hospitals as a temporary haven from a stressful world.

In contrast, the few research studies that have asked clients about their preference for traditional hospital or community treatments have found that clients prefer the community. For example, Macmillan et al.'s (1992) New Zealand study evaluated the satisfaction of long-stay chronically mentally ill clients transferred to a comprehensive community support programme. They found most clients preferred to live in the community, with this preference increasing over time. Client perceptions indicated that most were satisfied with their new living arrangements, felt they had sufficient space to themselves, and sufficient help from staff.

Within New Zealand populations, a few other studies have investigated mentally ill clients' satisfaction with community or hospital settings. Kearns' (1990) study, involving 100 community based chronically mentally ill people living in Auckland, found satisfaction scores to be significantly correlated with adequate income and sufficient activities. Dissatisfaction related to insufficient activities, as reported in narrative accounts, stemmed from limited social networks, limited opportunities to participate in meaningful activities, and general isolation from the wider society. However, the satisfaction scale used in this study appeared to have inadequate psychometric data supporting its reliability and validity. The inclusion of a psychometrically sound satisfaction scale would have been useful to allow comparisons across studies. In addition, clients who declined participation were substituted

with other clients but unfortunately no description of non-respondents was provided. Consequently there is no way of knowing if respondents differed from non-respondents on variables thought to be associated with increased levels of satisfaction.

Sheerin and Gale's (1984) study of 93 mentally ill clients living in the Christchurch community in New Zealand found most clients were satisfied with their living situation and preferred life in the community compared to the hospital. Those who did not like their accommodation were typically residing in boarding houses. This is consistent with Hodgins et al.'s (1990) and Sommers' (1988) findings that clients living in sheltered residencies with numerous others psychiatric clients were less satisfied with community services. Sheerin and Gale (1984) also found clients expressed most concern over difficulty in filling in their spare time and some had difficulty with social interactions. Client opinions were confirmed by staff who identified similar problem areas. Although response rates were high at 89%, this study developed and used its own satisfaction scale, making comparisons difficult.

The above studies show that there is some overlap in the assessment of subjective well-being and client satisfaction with community services. In particular, objective measures of well-being which assess external life circumstances, such as quality of social relationships and housing, are similar to measures of client satisfaction with services which also assess housing and support services. Furthermore, subjective measures of well-being have been found to be correlated with measures of consumer satisfaction (Le Vois et al., 1983), and life and consumer satisfaction have been labelled as covaring conditions by Lebow (1983).

In summary, despite the potential limitations of self-report measures of satisfaction, they appear valuable in evaluating services and quality of life. Tentative findings suggest life satisfaction is related to some aspects of community adjustment. Levels of consumer satisfaction appear equally high among clients residing in traditional hospital settings and community accommodation when independently assessed. However, when discharged clients are asked directly for their preference between hospital and community care, most

clients state a preference for community care, with this preference remaining stable over time. Nevertheless, this does not automatically mean community care is satisfactory, it only suggests clients perceive it as better than hospital treatment and improvements may still need to be made. One possible way of obtaining a more objective measure of clients preference between settings may be to administer the same questionnaire to the same clients to assess both hospital and community care. In addition, the failure to use psychometrically sound instruments, infrequent investigation into client perspectives, and the importance of including these types of measures to form a more complete assessment of community adjustment all indicate the need for further research in this area.

The present study

Background information

The closure of Lake Alice Psychiatric Hospital located in Marton, New Zealand, provided the opportunity for the present study to examine the impact of deinstitutionalisation on those long-stay chronically mentally ill clients transferred to the community. Lake Alice Hospital first became functional in 1950 and was designed to cater for long-stay, middle aged, chronic mentally ill clients (Baird, 1990). It continued to expand over the next 30 years to reach its peak around 1981 with 365 inpatients (Department of Health, 1983). Over the succeeding years, the number inpatients residing at Lake Alice Hospital began to recede in accordance with the Ministry of Health's deinstitutionalisation policy. More capable long-term clients were discharged into the community and others who would normally be admitted were kept out of the hospital. By the year ending June 1990, the number of admitted clients was 169 with 143 clients discharged (Baird, 1990).

The decision to close Lake Alice Hospital was made in 1992 at which time 153 long-stay inpatients resided in the hospital, excluding those in the National Security Unit. Of the 153 long-stay inpatients, 79 were initially identified as being suitable for community accommodation by the Area Health Board's multidisciplinary Needs Evaluation and Assessment Team (NEAT; for further details refer to Deane et al., 1995). Community accommodation for mentally ill clients was initially divided into three primary levels of care. These levels of care dictated the degree of funding allotted and type of supervision expected from community care facilities. The higher the level, the greater the supervision and rehabilitation requirements and subsequent funding. The criteria for the three levels of care continued to evolve and change between the time of initial discharge plans and the final follow-up assessments at 24 months. A Level Three-plus criterion was added and the splitting of Level Two into Level 2A and Level 2B was discarded.

The Central Regional Health Authority (1994) stipulates Level One care clients receive a minimum of three hours contact with their designated support worker each week and access

to 24 hours on call assistance with no longer than two hours access time. Clients in Level Two care require daily assistance and would not be tolerated in an ordinary social unit. Staff are expected to provide ongoing support, skill development in such areas as personal care or domestic tasks, and to encourage social activities. Clients receive "24 hour access to support with access time being no more than 15 minutes" (Central Regional Health Authority, 1994, p.8). Level Three clients require 24 hour on site support or supervision. Clients are judged dysfunctional and almost completely dependant on others to provide a supportive protective environment, or may need intensive social rehabilitation. Staff need appropriate clinical training and experience and at least one qualified health professional must always be on the premises. The home should provide some or all of the following: "professional care, rehabilitation, structured day programmes, special therapy programmes, supervised leisure activities" (HOMES Advisory and Assessment Team, 1993, p.24). Level Three-plus clients receive the same services as Level Three but with the addition of either "(a) access to 24 hour PRN medications, (b) significant behaviour management strategies, or (c) daily input from a multi-disciplinary team " (Central Regional Health Authority, 1994, p.8). A client may also be assigned to Level Three-plus if they are considered to pose a significant ongoing or intermittent risk to themselves or others.

Definitions and objectives

The present study will refer to deinstitutionalisation as the process of discharging psychiatric clients from traditional institutional settings into community care while avoiding future readmissions to psychiatric hospitals. Community care will be discussed in a broader context including any outpatient services made available to clients residing in the community. In accordance with the House of Commons Select Committee's definition of community care, Continuing Care Teams (CCT) operating under similar principles were set up for clients transferred from Lake Alice Hospital. In addition, CCT incorporate components found in successful community programmes (see Chapter 2, "Environmental influences on community adjustment" section). For example, the CCT are responsible for ensuring clients receive sustained care and treatment tailored to the client's specific needs by

utilising key workers (Manawatu-Wanganui Area Health Board, 1992). Community mental health services should serve several functions including psychiatric assessment, ongoing treatment programmes based on specific individual needs, advice and support, provision of key workers for clients, and educational and preventative programmes when needed.

Community adjustment refers to the clients' ability to live independently of custodial, long-term care and to maintain an existence as close to an autonomous adult life as possible (Lurigio & Lewis, 1989). It will also encompass an individual's ability to perform socially expected functions, such as everyday living skills and participation in and use of community resources (Sommers, 1988). Chapter One indicated community adjustment was a multidimensional construct that should be measured from several perspectives. However, much research has been criticised for not incorporating adequate follow-up periods, multiple outcome measures, or both. Consequently, the present study will use a longitudinal design to assess the following areas of community adjustment; general adaptive functioning, maladaptive behaviour, readmissions and length of psychiatric hospitalisation, subjective well-being, participants' level of distress, and social involvement. The types of community resources used by clients will also be assessed as part of the evaluation process.

The overall objective of the present study is to assess and monitor the affects of moving long-stay clients who are chronically mentally ill from the hospital to community residential placements. The present study will focus on problem areas highlighted by critics of the deinstitutionalisation movement (see Chapter 1), and those factors that discriminate between clients who achieve successful community adjustment and those unsuccessfully placed in community settings, as described in Chapter Two. Community adjustment will be assessed using both self-report and informant behaviour rating scales. In addition, the following specific hypotheses are tested:

Hypothesis 1

Due to the chronic nature of most clients' mental illness, it is hypothesised that they will show no significant changes in their behaviour when transferred from the hospital into supervised community care facilities.

Hypothesis 2

Given findings that clients who exhibit maladaptive behaviour are more likely to be hospitalised, be socially isolated, and show poorer levels of social adjustment (see Chapter 2), it is hypothesised that clients with higher levels of maladaptive behaviour will show poorer adjustment. In particular, clients with high scores on the REHAB Deviant Behaviour scale will be more likely to be readmitted to a psychiatric unit, score higher on the REHAB social activity factor, and have fewer social contacts.

Hypothesis 3

The literature discussed in Chapter two showed that higher levels of social and self-care skills were associated with better community adjustment and an increased likelihood of being transferred to the community. Therefore, it is hypothesised that clients who score higher on the REHAB "self-care skills" or "social activity" subscales will be more likely to be readmitted to a psychiatric unit. It is also predicted that clients who have fewer social contacts will have lower levels of adaptive functioning as assessed by the REHAB scale.

Hypothesis 4

Findings suggest older clients exhibit higher levels of impairment but remain in the community for longer periods (see section "the affect of age on community adjustment", chapter 2). Consequently, it is hypothesised that older participants will have lower levels of adaptive functioning, social integration, and fewer hospital readmissions than younger participants.

In addition, it is predicted that prior length of hospitalisation will be positively correlated with readmissions to a psychiatric unit and negatively correlated with adaptive functioning.

Hypothesis 5

Research findings in Chapter three showed that clients were about equally satisfied with hospital and community services when assessed independently. However, when the two settings were directly compared, clients residing in the community tended to state a preference for community living after being discharged from hospital with this preference remaining stable or increasing over time. Therefore, it is hypothesised that clients will be more satisfied with community services than hospital services after 12 months of residing in the community. Satisfaction with community services is expected to remain stable over time.

Other general objectives include:

1. To investigate the relationship between self-report measures and behaviour rating scales to help substantiate the usefulness and validity of self-report measures with chronically mentally ill clients.
2. To compare the present sample's perceived satisfaction with community services and global life satisfaction with other clinical samples.
3. To monitor the types of services clients actively use in the community.
4. To evaluate whether revolving door trends of brief frequent readmissions to psychiatric units apply to the present sample and ascertain whether clients who are at risk of hospital readmissions have distinguishable features from clients who remain in the community.

CHAPTER 4

METHOD

Participants

The participants were the first 30 clients transferred from Lake Alice hospital to various community placements as part of the hospital's discharge plan (Deane et al., 1995). All participants had been hospitalised for over one year, meeting O'Driscoll and Leff's (1993) criteria for long-stay chronically mentally ill clients. The first 30 clients were selected for transfer based on the Area Health Board's multidisciplinary Needs Evaluation and Assessment Team (NEAT) profiles. Original placements were determined by the coordination of the NEAT profiles and clients preferred place of living. At time of discharge, 15 clients were assessed as needing Level Three care and 15 requiring Level Two care. Placements and level of care subsequently changed over the two year follow-up period.

The sample contained 23 males and seven females, with 23 identifying their race as European and seven as Maori. Age ranged from 29 to 77 years with a mean of 50.4 years at the 24 month follow-up phase. The mean length of hospitalisation before transfer was 12.5 years. However, a few long-stay clients skewed the distribution which had a median of six years. The client's most recent diagnosis was obtained from their medical records immediately prior to transfer. Schizophrenia was the most frequent diagnosis ($n=25$), followed by mild mental retardation ($n=3$), and affective disorders ($n=2$). All clients received Secondary Care Services and none had received care from the Forensic Services. While hospitalised, 16 (53.3%) clients were on a voluntary treatment order and 14 (46.7%) on various compulsory treatment orders. At the 24 month follow-up, 23 (95.8%) clients were on a voluntary treatment order and one (4.2%) on a compulsory treatment order.

The first 30 clients were selected because of their higher levels of functioning compared to later cohorts who remained hospitalised (Deane et al., 1995). Monitoring the community

adjustment of clients who were first transferred should provide an overview of the best expected outcome for long-stay chronically mentally ill clients at Lake Alice Hospital.

Instruments

Four standardised instruments and a questionnaire developed specifically for the present study were used. The four standardised measures included the REHAB (Baker & Hall, 1983), Client Satisfaction Questionnaire-8 (CSQ-8; Larsen et al., 1979), Satisfaction With Life Scale (SWLS; Diener et al., 1985) and the Hopkins Symptom Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988).

Rehabilitation Evaluation Hall and Baker (REHAB)

The REHAB scale was used as the primary measure of clients' general adaptive functioning and symptomatic behaviour (see Appendix A). The REHAB is a 23-item multipurpose behaviour rating scale designed to evaluate people who have a prominent psychiatric disability (Baker & Hall, 1983). The REHAB incorporates two subscales, Deviant Behaviour and General Behaviour. The Deviant Behaviour scale contains seven items, including incontinence, physical violence, self-injury, sexually offensive behaviour, absconding, verbal aggression, and talking to self. Deviant Behaviour items are rated on a three-point scale indicating frequency of occurrence from "more than once a day/week", "once a day/week", or "not at all". The seven items are summed to provide a total Deviant Behaviour score ranging from 0 to 21. Low scores indicate lower levels of deviant behaviour. The General Behaviour scale includes 16 items rated on a visual analogue with three anchoring statements under each line. Each of the 16 items is scored between 0 and 9, resulting in a total General Behaviour score ranging from 0 to 144. Low scores reflect functioning considered "normal for the community". General behaviour items are divided into five factors: "Social activity", "Speech skills", "Disturbed speech", "Self-care", and "Community skills".

The REHAB scale has been widely used, has well established reliability and validity, and is sensitive to change (Baker & Hall, 1988; Carson, Coupar, Gill, & Titman, 1988; Fairley et al., 1993; Foreman & Baker, 1986; Jones, 1991; Linke & Taylor, 1987). For example, 19 pairs of raters, who were trained according to the procedures outlined in the REHAB manual, assessed 50 long-stay psychiatric inpatients. The Spearman rank correlation coefficient for each REHAB item was found to range from .58 to .90, with a median of .90. All correlations were significant beyond the .001 level (Carson et al., 1988). Content validity and criterion-related validity are high with total general behaviour scores correctly classifying 75% of patients into psychiatric day hospital attenders and average long-stay psychiatric wards (Baker & Hall, 1988). Wykes (1992) also endorses the use of the REHAB scale. In his review of the assessment of chronic psychiatric clients, Wykes concluded that the REHAB was one of the "best examples of rating schedules for instrumental behaviours" (1992, p.228).

Client Satisfaction Questionnaire (CSQ-8)

The CSQ-8 (Larsen et al., 1979) is a global measure of satisfaction consisting of eight Likert-type items with four response choices with "1" indicating the lowest degree of satisfaction and "4" the highest (see Appendix B). The CSQ-8 has been endorsed in the literature as a reliable and valid way of assessing global satisfaction with mental health services (Attkisson & Zwick, 1982; Lebow, 1982a, 1983; Deane, 1993).

The scale has sound reliability, with alpha coefficients between .87 (Nguyen, Attkisson, & Stegner, 1983) and .93 (Attkisson & Zwick, 1982a) being reported in a variety of mental health settings. A comparable alpha coefficient of .92 was found in a New Zealand outpatient psychotherapy sample (Deane, 1993). This high internal consistency shows the CSQ-8 provides a homogeneous estimate of general satisfaction with services. This is further supported by factor analysis that has shown only one factor for the scale (Nguyen et al., 1983).

Support for the measure's validity comes from significant correlations between the CSQ-8 and other outcome measures. For example, therapy gains and therapist estimates of client satisfaction have been found to be significantly correlated with the CSQ-8 (Larsen et al., 1979). In a New Zealand study, Deane (1993) found scores on the CSQ-8 to be positively related to three measures of change in a sample of psychotherapy outpatients. The three measures included therapist ratings of change on the Brief Hopkins Psychiatric Rating Scale (Derogatis, 1978; cited in Deane, 1993), client ratings of change on the HSCL-21 (Green et al., 1988), and client ratings of change on the State Trait Anxiety Inventory (Speilberger, 1983; cited in Deane, 1993). Furthermore, Gaston and Sabourin (1992) found a correlation of -.05 between the CSQ-8 and Marlowe-Crowne Social Desirability Scale, suggesting that the CSQ-8 is relatively independent from the tendency for clients to provide socially desirable responses.

Overall, the CSQ-8 was chosen because of its sound psychometric properties and to enable comparisons across other studies. The CSQ-8 was selected over more detailed, specific, standardised measures of consumer satisfaction for two primary reasons. First, the scale is brief and second, global measures have the advantage of being applicable to a wide range of settings irrespective of different programme structures (Larsen et al., 1979). This was especially important with the present study's sample who were located in a diverse range of settings with different treatment options. The evaluation of particular programme dimensions, where specific measures are recommended, was beyond the scope of the present study.

Satisfaction With Life Scale (SWLS)

The SWLS (Diener et al., 1985) is a five-item scale designed to measure the judgemental component of subjective well-being by evaluating a persons' global life satisfaction (see Appendix C). The SWLS has a reported coefficient alpha of .87 and a two month test-retest correlation coefficient of .82 (Diener et al., 1985). Similar reliability coefficients have been reported (e.g. Pavot, Diener, Colvin, & Sandvik 1991). The items show a high

factor loading on a single common factor (Diener et al., 1985), demonstrating it is a homogeneous measure of subjective well-being, which has further been replicated (Pavot & Diener, 1993). The SWLS has appropriate correlations with a number of well-being or life satisfaction measures such as, the Life 1 scale (Andrews & Withey, 1976) and the Self-Anchoring Ladder (Cantril, 1965; cited in, Diener et al., 1985). Diener et al. (1985) found the SWLS to have a .02 correlation with the Marlowe-Crowne Social Desirability Scale, leading them to conclude that the scale has minimal interference from social desirability response sets.

Significant negative correlations have been reported between the SWLS and measures of psychological distress. Sensitivity to change has been shown whereby life satisfaction increases after psychotherapy and decreases as negative life events increase. Psychiatric patients, prisoners, and abused women have consistently scored lower than other adult samples who experience better life conditions (Pavot & Diener, 1993).

Hopkins Symptom Checklist-21 (HSCL-21)

The HSCL-21 (Green et al., 1988) is an abbreviated form of the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, Covi, 1974). The HSCL-21 is a self-report inventory with 21 items designed to assess psychological symptom distress over a specified period (see Appendix D). The period stipulated by the present study was seven days. Each item is rated on a Likert-type scale from "1" (not at all) to "4" (extremely). The HSCL-21 has been shown to have a replicable three factor structure when administered to different samples and using different lengths (Green et al., 1988). The three seven-item subscales include; General feelings of Distress, Somatic Distress, and Performance Distress. These three subscales are added together to obtain a total distress score.

The HSCL-21 has satisfactory reliability, with a corrected split half reliability of .91 and alpha reliability coefficients ranging from .75 to .86 for the subscales and .90 for the total

scale (Green et al., 1988). Deane, Leathem, and Spicer (1992) found similar Cronbach alpha coefficients for a New Zealand clinical sample of outpatients receiving psychotherapy.

The HSCL-21 has also shown adequate validity and sensitivity. Deane et al. (1992) found clinical samples to score higher on the HSCL-21 than non-clinical samples, levels of distress decreased over psychotherapy, and the HSCL-21 was appropriately correlated with a number of other psychotherapy outcome measures.

The HSCL-21 was used because of its brevity and simple response format considered important due to the present samples characteristics. It also provided a useful measure of symptom distress from the respondent's perspective creating a multimethod assessment of community adjustment. This is following Brewin et al.'s (1987) recommendation of including multiple outcome measures.

Service Utilisation:

Service utilisation explored the type and frequency of services used by clients in the community, with the primary objective of gathering descriptive information (see Appendix E). Among other questions, caregivers were asked to list all activities and rehabilitation programmes clients currently used, and their frequency of use, which were classified into appropriate categories. The selection of these service categories were based on three sources; Brugha et al.'s (1988) study, Macmillan et al.'s (1992) New Zealand study, and the Manawatu-Wanganui Area Health Board (1992) guidelines for community service provision.

Five categories were derived from Brugha et al.'s (1988) study including sheltered leisure, sheltered work, sheltered residence, sheltered transport, and psychotropic medication. Some other categories were incorporated into the preceding categories for the following reasons. The industrial rehabilitation category was incorporated into sheltered work because both were used infrequently. The categories sheltered day environment, secure environment, and

support to subject were incorporated under sheltered residence because the services were received concurrently. The remaining categories were excluded for two reasons. First, two service categories were not used by the present sample; remedial education and behavioural analysis. Second, the remaining categories were captured under more appropriate labels for New Zealand samples. These categories included coping advice, welfare advice, skills training, and home help.

An "individualised programme" category included coping advice, welfare advice, and skills training, which were received concurrently. The provision of an individualised programme was in conjunction with the Manawatu-Wanganui Area Health Board's (1991) specification that clients receive ongoing treatment programmes tailored to meet their individual needs. The Manawatu-Wanganui Area Health Board also stipulates the provision of a caseworker and psychiatric assessment, resulting in these categories being added. Community service items copied from Macmillian et al. (1992) included visits with a psychiatrist, and voluntary agencies and support groups. Macmillian et al. also included contact with a psychologist but because this service was not used by any individuals in the present sample it was deleted.

In summation, the ten service categories included;

- (1) Individualised Programme, incorporating skills training conducted within the clients place of residence and advice. These covered such areas as personal hygiene, grooming, cooking, sewing, and advice on reducing anxiety and how to use money machines, among others;
- (2) Sheltered Transport, provided either by caregivers or mental health services;
- (3) Sheltered Work, such as "Workbridge";
- (4) Voluntary Support;
- (5) Sheltered Leisure, provided either by the place of residence, such as day trips, or those organised by the Community Mental Health Teams, such as woman's group, crafts, and drop in centres;
- (6) Sheltered residence;

- (7) Psychotropic medication, provided with or without supervision; and visits with a
- (8) Psychiatrist;
- (9) Key Caseworker; and
- (10) Psychiatric Nurse.

Measures of social relationships, admissions, and relocation

Social relationships were assessed by the cumulative frequency of clients physical contact with immediate family or close relatives and friends who did not reside in their dwelling. This information was collected for one six-month interval during the 12 to 18 month follow-up period. This information was obtained from primary caregivers and where possible was verified through client self-report.

Readmission rates to a psychiatric unit and durations of admission were recorded at each follow-up phase. Readmission data was obtained from hospital or mental health centre files.

Frequency and reasons for clients moving placements were recorded. A shift was defined as a move to a new placement where the client paid to reside. For example, one client became restless and moved into a boarding lodge for two weeks, then to a camping ground for nine weeks, and back to their normal place of residence. This was calculated as three moves. Readmissions to a psychiatric unit and client visits home or to friends were excluded. Dates of shifts and reasons were obtained from client files and direct caregivers who had an extensive knowledge of the client.

The primary reasons for moves were categorised as:

- (1) Mental deterioration without abusive or violent behaviour;
- (2) Mental deterioration coinciding with abusive or violent behaviour. Abusive behaviour included verbal and physical assaults, and self-inflicted harm such as attempted over doses. Abusive or violent behaviour was decided by the direct caregiver's judgement or if the

- exhibited behaviours resulted in the client being removed by police;
- (3) Mental deterioration as a result of victimisation. Victimation included clients being taken advantage of by other people who used their medication, money or both;
- (4) Client preferences included moves decided by the client, such as wanting a smaller flat, disliking other tenants within the home, or wanting to shift to another town;
- (5) Improvements in client functioning enabling them to live in less supervised homes;
- (6) Trial Placements where clients were transferred to another home but then deteriorated due to the shift. These placements did not involve a change in the assigned level of care but trial homes were smaller and considered more personalised; and
- (7) Others category. This included two clients. One client had to move because the layout of the home was inappropriate for her disabilities. No change in level of care took place. The second client became violent and was temporarily shifted to a boarding lodge until an appropriate place became available. During that transition the client dropped from Level 3 to Level 1 care.

Clients who moved several times were classified into the category that most frequently applied. For example, if one client moved three times, two for mental deterioration and one for improvements, a mental deterioration category would be assigned.

Procedure

Recruiting participants and ethical issues

After ethical review and approval was gained from the Massey University Human Ethics Committee (see Appendix F) and Manawatu-Wanganui Area Health Board Ethics Committee, approval was also obtained from the managers or trustees of each residence. The researcher met with the managers and explained the nature of the research and procedures to be used. Next, Good Health Wanganui and MidCentral Crown Health Enterprise staff or primary caregivers were contacted to inform them of the nature and procedures of the research.

Staff or primary caregivers then contacted the clients to obtain their permission for the researcher to visit. Staff made the initial contacts to decrease the likelihood of clients feeling pressured to participate, by the presence of the researcher. If clients agreed to meet the researcher, an appropriate time was arranged and the researcher visited the client at their residence. The primary caregiver introduced the researcher to the client. The client was invited to choose who they wanted to assist with the informed consent procedure. Most clients chose primary caregivers at their residential placement. This person acted as an advocate for the client and ensured that their rights were protected, which was particularly important for the present sample who have been characterised as having cognitive impairments (Bellack, 1989).

Clients were informed about the purpose, nature, and procedure of the study both verbally and in writing. The researcher then reviewed the consent procedure, responded to questions, and requested participation (see Appendix G for consent form and information sheet). After formal consent was obtained, clients had the same procedure repeated at each successive follow-up phase because of the relatively large time gap between visits. This served as a reminder for clients of their rights and the purpose of the study, and provided an opportunity for clients to withdraw their consent. The first and last data collection involved a signed consent procedure.

REHAB administration schedule

After clients were contacted and initial informed consent obtained, direct caregivers who had the greatest opportunity to observe the respondent were selected to complete the REHAB scale. To enhance scorer reliability caregivers received REHAB training sessions by the researcher (RH) before the actual data collection. Three types of REHAB training sessions were conducted dependent on the number of staff and clients in each home.

The first, involved the formal REHAB training session as outlined by Baker and Hall (1983). This involved two trial clients being observed over one week. At the end of the

observation week caregivers simultaneously completed a practice rating on one trial client, with the assistance of the researcher. Caregivers completed a second practice rating on the second trial client independently within seven days of the first practice rating. A feedback session followed within one week to discuss any discrepancies or problems.

The second type of training session was a condensed form of the first. It followed the same procedure with the exception that the second practice rating was completed directly after the first. Formal and condensed training sessions were used if at least two clients and direct caregivers were available. The condensed training was used when caregivers had difficulty meeting due to being on different shifts or when geographical distances between the researcher and raters made spaced practice ratings impractical.

The third type of training session was an informal session. Caregivers had the raters guide and assessment forms explained to them without any practice trials. It was used when only one rater was available, making comparisons between raters impossible.

Four points were stressed to all raters; (1) ratings were to be based on observed behaviour for the rated week whether behaviour was atypical or not; (2) raters could obtain and use information from staff on other shifts or staff notes; (3) raters were encouraged to be objective; and (4) to rate clients in comparison to what is considered 'normal in the community', not in comparison to hospital or hostel standards (Baker & Hall, 1983).

While the participants were hospitalised REHAB's were collected as part of the hospital's routine assessment for discharge planning on two occasions, six months apart. Average REHAB scores were computed across the two hospital intervals. Staff who completed the REHAB's at Lake Alice Hospital received the formal training outlined in the REHAB manual (Baker & Hall, 1983). Clients were then transferred to various community placements and REHAB data was collected at 12, 18, and 24 months follow-up (see Table 1).

The procedure followed by Staff who received the formal and condensed training was as follows. One rater observed the participant over the first week and the other rater observed the same participant over the second week. Both raters completed their assessment forms at the end of their observation week. The final score was obtained by averaging each item across the two raters. Staff receiving informal training observed one client over one week. In addition, REHAB ratings were usually completed conjointly for clients at Level one because raters tended to have less contact. Where possible the same raters were used across all data collection points.

At 12 months follow-up 14 clients had REHAB's completed by two raters and 13 by one rater. Nonetheless, only four of the 13 clients observed by one rater had assessments completed by caregivers who had received the informal training.

At 18 months follow-up 14 clients had REHAB's completed by two raters and 12 by one rater. Again only four clients had assessments completed by caregivers who had received the informal training.

At 24 months follow-up 11 clients were assessed by two raters and 13 by one rater. Five clients were assessed by raters who had received the informal training. In addition, one assessment was completed two weeks retrospectively because the client became unstable and restless, shifting frequently over the data collection period.

Several reasons account for the discrepancy between the number of raters receiving formal training in the use of the REHAB scale and the subsequent number of clients who should have been rated by two caregivers. Five clients were assessed at each follow-up phase by one caregiver who had previously been responsible for the training of staff in the use of the REHAB scale at Lake Alice Hospital. The home organised by this caregiver had no other permanent staff who had sufficient contact with the five clients. Two other caregivers rated one client each but had teamed up with other caregivers for a condensed formal training

session. Other reasons clients were assessed by a single rater who had received formal training included one client being transferred to a less supervised home and caregivers leaving.

Data administration schedule

A longitudinal design with repeated measures at four intervals was used (see Table 1 for data administration schedule). Participants were followed by the researcher (RH) over two years after being transferred from Lake Alice Hospital to community residential placements. Community follow-ups were completed at 12, 18 and 24 months. Demographic data was collected from clients medical files at the initial data collection phase.

Table 1

Summary of data collection and instruments used at hospital and 12, 18, and 24 months follow-up in the community.

Hospital	Community		
	12 months	18 months	24 months
REHAB	REHAB	REHAB	REHAB
	HSCL-21	HSCL-21	HSCL-21
	CSQ-8 (hospital)		
	SWLS	SWLS	SWLS
	CSQ-8 (community)	CSQ-8 (community)	CSQ-8 (community)
	Readmissions	Readmissions	Readmissions
	No. of Moves	No. of Moves	No. of Moves
		Services Used	Services Used
REHAB:	Rehabilitation Evaluation Hall and Baker		
HSCL-21:	Hopkins Symptom Checklist-21		
CSQ-8:	Client Satisfaction Questionnaire-8		
SWLS:	Satisfaction With Life Scale.		

The HSCL-21, SWLS, CSQ-8 measures were administered in the order noted in Table 1 at each follow-up phase in the community. In most cases, clients completed the questionnaires in a private room with the assistance of the researcher (RH). In addition, at 12 months follow-up respondents were asked to complete a second CSQ but in relation to services at Lake Alice Hospital (see Table 1). The only difference between the two CSQ's were the directions. The CSQ with community services had the direction "... answer some questions about the mental health services you have received since you have been in the community...", while the CSQ with hospital services had the direction "... answer some questions about the services you received when you were staying at Lake Alice Hospital...". The CSQ with hospital services was administered between the HSCL-21 and SWLS questionnaires. At each administration of the CSQ the researcher emphasised the collection of group not individual data and that assessments were to evaluate services, not clients. This was in accordance with the recommendations outlined by Lebow (1983) to help alleviate response biases. Assessments for clients experiencing florid psychotic symptoms were delayed until they returned to more stable functioning or missed if this did not occur within two months of the initiation of the data collection phase.

Information concerning the number of moves, reasons for moves, readmissions, and duration of readmissions was collected at each data collection phase from client files and validated by primary caregivers who had a sound knowledge of the client. The researcher also presented a number of questions for caregivers to answer at 18 and 24 months follow-up. The primary purpose of these questions was to obtain descriptive information about clients use of services, treatment, home characteristics, and social interactions (see Appendix E for questions). Service providers were asked to explain the circumstances for a client's move because the relevant information held on file tended to be brief and often did not elaborate on the circumstances surrounding decisions to move.

CHAPTER 5

RESULTS

Data screening

Prior to analysis, all data were assessed through various SPSS/PC+ (Norusis, 1992) programmes for accurate data entry, missing values, outliers, and the meeting of statistical assumptions.

Missing participants

Table 2 provides a summary of clients who participated and reasons for non-participation. Two clients were not available over all data collection phases. One client provided permission then later declined to participate and requested that their data be destroyed. The second client left the Manawatu area and was unable to be located by the Manawatu Coordinator of Continuing Care due to their high mobility. Although the client was said to occasionally contact the Manawatu Continuing Care services, this did not occur over the 24 month follow-up period.

Table 2.

Summary of available clients and reasons for nonparticipation at each follow-up phase.

	Number of clients		
	12 months	18 months	24 months
Participated	27	26	24
Declined	1	1	1
Too disturbed	1	0	0
No contact	1	2	1
Died	0	1	3
Discharged	0	0	1

At 12 months follow-up two clients declined to participate but gave permission at 18 months follow-up. Both clients were experiencing marked deterioration in their mental functioning at the time they declined. However, one client returned to a psychiatric unit that conducted REHAB assessments as part of the hospitals routine assessment, allowing the REHAB scores to be used when the client's permission was obtained. At 18 months follow-up two different clients were unavailable, one died and the other returned home and was unable to be contacted, leaving 26 participants (see Table 2). At 24 months follow-up three clients had died and one was discharged and no longer wanted to participate in the study, leaving a sample size of 24. All deaths were due to age related physical conditions. The discharged client met the MidCentral Crown Health Enterprise criteria for being discharged. Termination of services resulted from a mutual decision between the client and mental health workers.

The number of REHAB's completed corresponded with the number of participants at each data collection phase. However, additional clients were unable to complete the self-report measures. Ten cases were missing for the HSCL-21, CSQ-8 with community services, and SWLS measures. Non-respondents included the three clients described as missing at 12 months follow-up, five clients who were unable to complete the questionnaire due to inadequate communication skills, one client who was willing to participate if they could do nothing except give consent for staff completed measures, and one who was too disturbed. The CSQ-8 relating to prior hospital services had an additional three clients missing who verbally indicated that they wanted nothing to do with Lake Alice Hospital, including completing the questionnaire.

At 18 months follow-up 10 cases were missing on the self-report measures including four clients for reasons outlined in Table 2 and a further six clients who had inadequate communication skills to complete the questionnaires. Five of these clients with inadequate communication skills were the same clients who were unable to complete the self-report questionnaires at 12 months follow-up. The HSCL-21 had one extra client missing who

became restless and indicated they were bored with the questionnaire, leaving 19 respondents for this questionnaire.

Fifteen clients did not complete the self-report questionnaires at 24 months follow-up. These included the six clients for reasons detailed in Table 2, a further four were too disturbed, and the same five clients who had inadequate communication skills at 12 months follow-up.

On the self-report measures non-respondents were compared with respondents using Chi-square for gender and diagnosis, and a between subjects t-test for age and prior length of psychiatric hospitalisation. Non-respondents included all participants who did not complete the questionnaires, excluding clients who had died. No significant differences were found between non-respondents and respondents on all of these demographic variables at each of the data collection points (see Appendix H).

Assumptions of normality

No extreme outliers were found for all variables. Deviant Behaviour was substantially skewed due to many clients having low scores. This corresponds with Hall and Baker's (1983) norms for 504 inpatients on 17 long-stay wards, where 44% of inpatients scored 0 on the total Deviant Behaviour scale. Total General Behaviour scores met the assumptions of normality.

The majority of the HSCL-21, CSQ-8 related to community and hospital services, and SWLS questionnaires had adequate normal distributions. Two exceptions were the HSCL-21 at 12 months follow-up and the SWLS questionnaire at 24 months follow-up which had bimodal distributions. These distributions appeared at least in part due to small sample sizes.

Data analysis

Missing data made analysis using MANOVA impractical, resulting in repeated measures analysis of variance (ANOVA) or within subjects (paired) t-tests being used. Nonparametric methods were used if required assumptions were violated. All analyses, unless otherwise specified, used two-tailed levels of significance. This more conservative approach was taken because long-stay chronically mentally ill clients behaviour usually remains unchanged after being transferred to the community, and if changes occurred it would be uncertain in which direction (e.g., Francis et al., 1994; Leff, 1992; Macmillan et al., 1992).

Although multiple statistical tests were completed, increasing the risk of Type-I error, the alpha level was kept at 0.05 for two primary reasons. The relatively small sample size meant that decreasing the alpha level would reduce the ability to detect any changes. Second, the more conservative approach of two-tailed tests were used throughout the analysis. Consequently, a Bonferroni adjustment was considered too conservative.

The mean scores were used for the two hospital baseline REHAB measures, as in Francis et al.'s (1994) study. In addition, the present study was not concerned with pre-hospital changes. The primary focus was to assess whether changes occurred after clients had moved from the hospital to the community. It was thought that by using mean hospital scores a more representative account of clients' level of functioning in the hospital would be created.

Relationships among scales

Intercorrelations between measures were examined to establish the validity and reliability of self-report measures which had been previously questioned (e.g. Bellack 1989; Jones et al., 1986). Table 3, 4, and 5 show the intercorrelations among the REHAB's General and Deviant Behaviour measures, and three self-report measures. Deviant Behaviour had moderate to fairly strong correlations with the HSCL-21 at 18 months ($r = .64$, $p < .005$), and 24 months ($p = .45$, $p < .05$), in the expected direction. Correlations between the

General Behaviour scale and two self-report satisfaction scales were typically weak. However, General Behaviour showed fair but insignificant positive correlations with the HSCL-21 at the last two data phases. The bimodal distribution of the HSCL-21 at 12 months follow-up may partly explain why no relationship was found with this scale at 12 months follow-up. Furthermore, in consideration of the small sample sizes behavioural ratings showed adequate relationships with client's self-rated levels of distress.

Table 3

Intercorrelations among informant and self-report scales at 12 months follow-up

Scale (n = 19)	1	2	3	4	5
1. General Behaviour (REHAB)	.86				
2. Deviant Behaviour (REHAB)	.16	.05			
3. HSCL-21	-.35	.38	.92		
4. CSQ-8 Community	-.02	-.27	-.39*	.76	
5. SWLS	.14	-.17	-.45*	.67**	.79

Note. Coefficient Alpha is inserted on the diagonal.

* p < .05, ** p < .001

The self-report measures showed moderate to strong significant correlations with one another at 12 months follow-up, with the CSQ-8 and SWLS showing a strong correlation ($r=.67$, $p < .001$). At 18 months follow-up the SWLS and HSCL-21 scores showed a moderate significant correlation ($r = -.57$, $p < .005$). At 24 months follow-up all self-report scales showed low insignificant correlations, albeit most were in the expected direction. This decrease in the correlations strength can be partly attributed to diminished subject numbers.

Table 4

Intercorrelations among informant and self-report scales at 18 months follow-up

Scale (<i>n</i> = 19)	1	2	3	4	5
1. General Behaviour (REHAB)	.81				
2. Deviant Behaviour (REHAB)	.44*	.35			
3. HSCL-21	.27	.64**	.92		
4. CSQ-8 Community	.35	.05	-.27	.69	
5. SWLS	-.23	-.44*	-.57**	.23	.70

Note. Coefficient Alpha is inserted on the diagonal.* *p* < .05, ** *p* ≤ .005.

Table 5

Intercorrelations among informant and self-report scales at 24 months follow-up

Scale (<i>n</i> = 15)	1	2	3	4	5
1. General Behaviour (REHAB)	.89				
2. Deviant Behaviour (REHAB)	.69**	.75			
3. HSCL-21	.26	.45*	.89		
4. CSQ-8 Community	.26	.17	.21	.84	
5. SWLS	.08	.10	-.12	.40	.68

*Coefficient Alpha is inserted into the diagonal.

* *p* < .05, ** *p* < .005

The internal reliability for the HSCL-21 was consistently high across the 12, 18, and 24 months follow-up at .92, .92, and .89, respectively. The internal reliability for the CSQ-8 and SWLS were somewhat lower but satisfactory. These lower internal reliability coefficients were partly due to the questionnaires brevity. Two Cronbach alpha coefficients, CSQ-8 at 18 months and SWLS at 24 months follow-up, were marginally below the recommended alpha cut off point of .7 (Kline, 1993).

The General and Deviant Behaviour rating scales had significant, moderate, positive correlations at 18 and 24 months follow-up. At 12 months follow-up the scales had a weak correlation but in the expected direction. However, "it has been consistently found that deviant behaviour ... is not highly correlated with deficits of behaviour, or social withdrawal" (Baker & Hall, 1983, p.11). Deviant behaviour typically refers to low frequency discrete events while deficits of behaviour refer to more general and more frequently occurring behaviour. The Cronbach alpha coefficients were satisfactory for the General Behaviour scale but tended to be low for the Deviant Behaviour scale. This is also consistent with the finding that the total Deviant Behaviour score "is not a unified measure of deviance but rather a mixture of different scores" (Hall & Baker, 1983, p. 101).

Hospital and community differences

Repeated measures ANOVA was performed on the REHAB's Total General Behaviour and five subscales, "Social activity", "Speech skills", "Disturbed speech", "Self-care", and "Community skills", over four time periods. Table 6 shows the means, standard deviations, and F-values for REHAB scores in the hospital and the community ($n = 19$). No significant affect was found for time on total General Behaviour, Speech skills, Disturbed speech, Self-care, and Community skills factors. Nevertheless, the mean General Behaviour scores showed a non-significant trend toward improvement after clients were transferred to the community. An unexpected, significant, change was found for clients' REHAB social activity scores, $F(3,48) = 3.2$, $p < .05$.

Table 6.

Mean REHAB scores for clients at hospital and each community follow-up phase.

REHAB scales	Community										F (df=3,48)	
	Hospital		12 months		18 months		24 months		<i>M</i>	<i>SD</i>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Social activity	27.0	13.1	19.9	12.1	19.9	12.2	17.4	15.3			3.2*	
Speech skills	7.6	5.6	7.0	5.5	6.5	6.0	6.5	6.1			0.5	
Disturbed speech	5.9	4.9	4.8	5.3	6.2	5.1	5.0	5.5			0.9	
Self-care	11.7	8.2	12.5	7.8	13.1	9.6	13.1	12.0			0.3	
Community skills	9.4	4.2	8.1	5.3	8.8	4.7	7.8	5.2			1.7	
Total General ^a behaviour	59.8	24.4	48.4	27.3	50.6	27.7	45.9	36.4			2.1	

Note. Lower scores on the REHAB indicate higher levels of general functioning.

^a Total General Behaviour score was calculated by the following formula: Social activity + Disturbed speech + Self-care + Community skills + Overall score = Total GB (Baker & Hall, 1983).

* $p < .05$.

Paired t-tests were subsequently used to determine for which time periods social activity scores changed. Only respondents included in the ANOVA were used in the paired t-test analysis. A significant improvement was found in clients' social activity scores between the hospital and 12 month community follow-up, $t(16) = 2.12$, $p=.05$, and the hospital and 18 month community follow-up, $t(16) = 2.15$, $p<.05$. No significant change was found between the hospital and 24 month community follow-up, though only marginally so, $t(16) = 2.08$, $p = .054$. Paired t-tests showed no significant changes for social activity over the community follow-up periods. However, for ease of reporting a repeated measures ANOVA was used for social activity over the three community times, $F(2,32) = .58$, $p>.05$.

The REHAB's Deviant Behaviour scale did not meet the assumptions necessary for parametric analysis. Consequently, the Friedman Two-way Analysis of Variance by Ranks was used to determine whether scores changed over time (Sprent, 1993). No significant difference was found for Deviant Behaviour over the four time intervals, $\chi^2 = 1.59$, $p > .05$ ($n=17$). The mean Deviant Behaviour scores were 1.28, 1.50, 1.98, and 1.98, for hospital, 12, 18, and 24 months follow-up, respectively.

Maladaptive behaviour

To assess the affect of maladaptive behaviour on community adjustment, psychiatric hospitalisation was used as an indicator of community adjustment as in Tessler and Manderscheid's (1982) study. Participants were divided into two groups, those who had been readmitted to a psychiatric inpatient unit over the 24 month follow-up period and those who had not been hospitalised. Accordingly, the mean REHAB Deviant Behaviour scores across the three community follow-up periods was used to assess maladaptive behaviour. As already noted the Deviant Behaviour scale did not meet the assumptions necessary for parametric analysis, resulting in a Mann-Whitney U-Wilcoxon Test being used (Sprent, 1993). A significant difference was found between hospitalised and non-hospitalised clients on the Deviant Behaviour scores, $z = -2.00$, $p < .05$. The mean ranks indicated that hospitalised clients (mean rank = 9.81) were more likely to be ranked as having higher levels of deviant behaviour compared to non-hospitalised clients (mean rank = 16.00). The mean Deviant Behaviour score was 2.92 ($SD = 2.11$) and 1.39 ($SD = 1.03$) for hospitalised and non-hospitalised groups, respectively.

To test the assumption that clients with lower levels of maladaptive behaviour would be less socially adjusted and more socially isolated, the REHAB social activity scale and frequency of contact with friends, family, or both over one six month interval was used. The 18 months follow-up period was selected because friends and family contact was only assessed at this time period. Maladaptive behaviour was assessed using the REHAB Deviant Behaviour scale. Initially the 50th percentile from the REHAB manual's norms was

selected as a cut off point for separating groups but only four clients fell within this range. Consequently, those clients who fell below the 75th percentile, scoring one or less on the total Deviant Behaviour scale, represented the low maladaptive behaviour group ($n = 15$). Clients in the high maladaptive behaviour group had a total Deviant Behaviour score that was greater than one ($n = 11$). Independent t-tests showed no significant difference between high and low maladaptive groups on the REHAB social activity scale, $t(24) .01 = p > .05$, and the frequency of contact with family and friends, $t(24) -1.04 = p > .05$.

Table 7

Comparison of clients exhibiting deviant behaviour with REHAB normative sample

Deviant Behaviour items	Presence of deviant behaviour (%)							
	12 months		18 months		24 months		REHAB Norms (Hall & Baker, 1983)	
	No	Yes	No	Yes	No	Yes	No	Yes
	(n = 27)		(n = 26)		(n = 24)		(n = 516)	
Incontinence	88.9	11.1	80.8	19.2	87.5	12.5	85.0	15.0
Physical violence	92.6	7.4	96.2	3.8	87.5	12.5	93.0	7.0
Self-injury	92.6	7.4	96.2	3.8	95.8	4.2	98.0	2.0
Sexual offensiveness	96.3	3.7	92.3	7.7	83.3	16.7	95.0	5.0
Absconding	96.3	3.7	8.5	11.5	79.2	20.8	90.0	10.0
Verbal aggression	70.4	29.6	65.4	34.6	70.8	29.2	75.0	25.0
Talking to self	37.0	63.0	30.8	69.2	33.3	66.7	67.0	33.0

Note. No = No deviant behaviour present, Yes = "Behaviour occurs once a week/day" or "occurs more than once a week/day" (Hall & Baker, 1983).

Deviant Behaviour items on the REHAB and the percentage of clients exhibiting the behaviour are presented in Table 7. Corresponding percentages for a sample of British

long-stay inpatients are included for comparative purposes. The most frequently occurring behaviour was talking to oneself, followed by verbal aggression. Self injury occurred the least frequently when averaged over the three community phases. A comparison between this sample and the REHAB norms showed similar occurrences of deviant behaviour. The most notable difference was the higher "talking to self" scores found in the present sample.

Social and everyday living skills

To assess the affect of social and everyday living skills of community adjustment, readmission to a psychiatric hospital was used to as an indicator of community adjustment, as in Tessler and Manderscheid (1982) study. The sample was separated into two groups; poorly adjusted clients including those readmitted to a psychiatric hospital over the 24 months follow-up period and well adjusted clients who remained out of hospital.

Social and everyday living skills were assessed by the REHAB "social activity" and "self-care" factors (as in Linke & Taylor, 1987). The REHAB social activity and self-care data at 18 months follow-up was used because it was the only assessment phase that had complete data for clients who had been readmitted ($n = 7$). Two independent t-tests showed clients who were readmitted to a psychiatric hospital did not have significantly different levels of social activity, $t(21) = 1.24$, $p > .05$, or self-care skills, $t(21) = -.31$, $p > .05$, compared to clients who had not been readmitted.

However, analysis at a single data point creates difficulties in that behaviour measured at one time may not be representative of the client's usual behaviour. This may especially pose a problem because the nature of mental illness tends to be cyclical (Aviram, 1990). To assess whether this was the case a second analysis was conducted using client's averaged social activity and self-care scores across the three community phases. One of the seven respondents who was readmitted had to be excluded because of insufficient data, leaving 6 in the comparison group. Independent t-tests showed no significant differences between

well adjusted and poorly adjusted clients on social activity, $t(20) = .71$, $p > .05$, and the self-care factor, $t(20) = -.01$, $p > .05$.

Social involvement was used as another indicator of social skills or integration, as in previous studies (e.g. Avison & Speechley, 1987; Segal & Kotler, 1993). The criteria for social involvement was based on Kruzich and Berg's (1985) study that used client's frequency of contact with family and friends outside their place of residence. High social involvement included clients who had contact with friends, family, or both at least once every two weeks. Those in the low social involvement group had contact less than once every two weeks. Table 8 provides the mean, standard deviation, and t-values for clients with low and high levels of social involvement.

Table 8

REHAB scores at 18 months follow-up for clients with high and low levels of social involvement

REHAB factor	Level of social involvement						
	Low		High		<i>df</i>	<i>t</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
(n = 14)				(n = 12)			
Social activity	25.93	13.74	14.04	6.79	19.58	2.86*	
Speech skills	8.36	6.60	3.50	2.22	16.31	2.59*	
Disturbed speech	7.71	6.32	3.17	2.04	16.06	1.79*	
Self-care	16.14	12.83	10.88	8.82	24.00	1.20	
Community skills	10.18	4.79	6.54	4.06	24.00	2.07*	
Total General behaviour	63.14	34.65	39.79	18.68	24.00	2.35*	

Note. Lower scores indicate higher levels of functioning.

* $p < .05$.

The results showed that clients with high levels of social involvement were significantly better adjusted than those with low levels, as measured by the REHAB's social activity, speech skills, disturbed speech, community skills and total general behaviour scores. As shown in Table 8 adjusted degrees of freedom were used for three variables due to a violation of the equal variances assumption. However, self-care scores were not significantly different between the two groups.

Client contact with family ranged from no contact within the past six months to an average of three times a week for one client. Eight clients (30.8%) had contact with their family once a month or more and 10 clients (38.5%) reported no contact with family in the past six months. Frequency of contact with friends was a little higher, with 10 clients (38.5%) reporting contact with friends once a month or more and nine clients (34.6%) having no contact over the past six months. Nearly all respondents said they visited friends rather than friends visiting their place of residence.

The affect of age on community adjustment variables

The prediction that older clients would be more poorly adjusted than younger clients was analysed using two independent t-tests, with REHAB general behaviour scores and social involvement as dependent variables. The separation of clients into older (>47 years) and younger (≤ 47 years) groups were determined by the best split for maintaining approximately equal groups. The 14 clients in the older group ranged from 48 to 77 years, with a mean age of 63 years. The 13 clients in the younger group ranged from 29 to 46 years, with a mean age of 36 years.

Comparisons between groups was conducted at 12 months follow-up for General Behaviour scores because later follow-ups had fewer older clients due to deaths. Older client's general behaviour was not significantly different to younger clients, although only marginally so using a more stringent two tailed test of significance, $t(18.51) = -1.81$, $p = .08$. The mean REHAB score was 57.36 ($SD = 35.34$) for older clients and 38.50 ($SD = 16.16$) for

younger clients, suggesting a trend toward older clients exhibiting lower levels of general adaptive functioning. The use of adjusted degrees of freedom and the large standard deviation for older clients, suggests the level of adaptive functioning among older clients varied substantially. The level of adaptive functioning was more consistent among younger clients. Age showed a significant correlation with REHAB General Behaviour scores at 12 months follow-up, $r = .44$, $p < .02$ ($n = 27$).

Social involvement was assessed at 18 months and included clients frequency of contact with family and friends over one six month interval. It was decided to analyse contact with family and friends separately to assess whether both were less frequent for older clients. An independent t-test showed older clients were significantly less likely to have contact with friends than younger clients, $t(13.05) = 3.17$, $p < .01$. The mean number of contacts were 2.85 ($SD = 7.15$) for older clients and 33.54 ($SD = 34.13$) for younger clients. The second independent t-test showed family contact was not significantly different for older and younger client groups, $t(12.88) = 1.72$, $p > .05$. The mean number of contacts over six months were 3.92 ($SD = 5.42$) for older clients and 17.69 ($SD = 28.27$) for younger clients. Adjusted degrees of freedom were used due to between group variations in standard deviations. The variation in the number of contacts with family and friends was much larger within the younger group than the older group.

To examine whether age was related to readmissions a one-tailed Pearson's correlation coefficient was calculated. An independent t-test and Chi-square analyses were not feasible because admissions were not normally distributed and too few clients were admitted to a psychiatric unit. Age was not significantly correlated to total readmissions over the 24 month follow-up period, although only marginally so, $r = -.32$, $p = .07$ ($n = 24$).

Prior length of hospitalisation

To test the assumption that hospitalisation history was related to clients' general adaptive functioning, as measured by the REHAB General Behaviour scale, a one-tailed Pearson's

correlation coefficient was calculated. Prior length of hospitalisation was found to be significantly correlated with clients' level of adaptive functioning at 12 months, $r = .37$, $p < .05$ ($n = 27$) and 18 months follow-up, $r = .37$, $p < .05$ ($n = 26$). Prior length of hospitalisation was not significantly correlated with adaptive functioning at 24 months follow-up, $r = .20$, $p > .05$ ($n = 24$). This decrease in the strength of correlation can be partly attributed to diminished subject numbers.

Analysis of client satisfaction

Table 9 shows the means, standard deviations, and t-values for the CSQ scores. A with-in subjects t-test showed participants were more satisfied with community services than hospital services 12 months after they were transferred, $t (14) = 3.62$, $p < .005$. The mean difference score for client satisfaction was 4.8 ($SD = 5.1$). However, at 24 months follow-up participants were not significantly more satisfied with community services than hospital services, $t (9) = 1.64$, $p > .05$. With-in subjects t-tests showed no significant changes in client satisfaction with community services across any time point. Repeated with-in subjects t-tests were used to minimise the number of missing cases encountered when using ANOVA ($n=10$). An independent t-test also showed the sample had comparable levels of satisfaction with an independent New Zealand sample of 93 outpatients receiving psychotherapy (Deane, 1993), $t (102) = -1.37$, $p > .05$.

In accordance with Deane's (1993) study clients were considered satisfied if they gave a rating of "3" or more on at least seven of the eight 4-point items measured by the CSQ-8. This method was adopted because it seemed sensible that clients could be dissatisfied on one item before being classified as dissatisfied. At 18 months follow-up, 80% of clients were globally satisfied with the mental health services they had received in the community. The 18 month follow-up period was used because it had the largest number of respondents ($n=20$). The decision to sum an average score across the three community phases was abandoned because only 11 subjects would be left for analysis. In addition, the CSQ scores at 12 months follow-up could have been inflated due to reactivity to the CSQ with hospital

services that was presented immediately before it.

Table 9

Client CSQ scores over time and comparison with a New Zealand outpatient psychiatric sample

Group comparisons	<i>M</i>	<i>SD</i>	<i>CSQ</i>	<i>df</i>	<i>t</i>
Hospital x	21.20	5.21			
Community (12 mths)	26.00	3.42		14	3.62*
Hospital x	21.70	6.40			
Community (24 mths)	23.70	5.90		9	1.64
Community (12 mths) x	25.31	3.95			
Community (18 mths)	25.81	2.83		15	-.66
Community (12 mths) x	24.83	4.26			
Community (24 mths)	22.75	5.17		11	1.82
Community (18 mths) x	25.92	3.45			
Community (24 mths)	23.92	4.63		12	1.60
Community ^a x	24.60	3.55			
Deane (1993)	26.54	4.54		102	-1.37

^a Community = clients CSQ scores summed across three community points divided by 3.

* p < .005

No data was available on clients' subjective well-being while hospitalised resulting in a comparison been made with 27 outpatients receiving psychotherapy in the United Sates (Pavot & Diener, 1993). No New Zealand data was available for psychiatric clients on the SWLS. The sample's SWLS scores were averaged across the three community follow-up phases. An independent t-test showed the present sample, on average, had significantly higher scores on the SWLS than the outpatient sample, $t(42) = 5.16$, $p < .001$. The mean was 22.2 ($SD=5.5$) for the present sample and 14.4 ($SD=6.7$) for the outpatient sample.

Descriptive statistics of the sample

Service utilisation

Table 10 shows the type of services used by clients and the number of clients who used each service at any time over two six month intervals. The data was obtained from direct caregivers who had an extensive knowledge of and considerable contact with the client. Medication information was obtained from client files, in conjunction with staff report, and where possible information was checked with clients.

Table 10

Types of community services used by clients and number of clients using each service from 12 to 24 months follow-up.

Type of services	Number of clients using services			
	12-18 months		18-24 months	
	Yes (%)	No (%)	Yes (%)	No (%)
	(n = 26)			
Individual Home Programmes	17 (65.4)	9 (34.6)	15 (62.5)	9 (37.5)
Psychiatrist	21 (80.8)	5 (19.2)	16 (66.7)	8 (33.3)
Key Caseworker	14 (53.8)	12 (46.2)	13 (54.2)	11 (45.8)
Psychiatric Nurse	24 (92.3)	2 (7.7)	18 (75.0)	6 (25.0)
Sheltered Transport	22 (84.6)	4 (15.4)	18 (75.0)	6 (25.0)
Sheltered Work	1 (3.8)	25 (96.2)	1 (4.2)	23 (95.8)
Voluntary Support	11 (42.3)	15 (57.7)	12 (50.0)	12 (50.0)
Sheltered Recreation	21 (80.8)	5 (19.2)	18 (75.0)	6 (25.0)
Sheltered Residence	24 (92.3)	2 (7.7)	21 (87.5)	3 (12.5)
Psychotropic Medication	24 (92.3)	2 (7.7)	21 (87.5)	3 (12.5)

The number of clients using each service generally did not change over the 12 month period. The declining number of participants using services at 24 months was largely due

to sample mortality. The number of different types of services utilised by respondents ranged from two to a maximum of nine, over either follow-up period. The most common forms of services used were sheltered residence, psychotropic medication, visits by a psychiatric nurse, and sheltered transport. The service least likely to be used was sheltered work, with only one respondent using this form of care.

Twenty four participants had the number and changes in medication recorded at both six month intervals. On average only three (12%) clients received no medication, while 14 clients (58%) received at least two different types. Twelve respondents had no changes in their medication, six had it reduced, and six had their medication increased.

Clients, on average, resided in the following types of accommodation, sheltered housing trusts ($n = 8$), profit oriented homes ($n = 6$), and facilities run by the Crown Health Enterprise ($n = 3$), which were all registered with the Homes Ongoing Monitoring Evaluation System (HOMES) organisation. Housing independent of the HOMES organisation included retirement homes ($n = 3$), flats ($n = 1$), boarding lodges ($n = 2$), own home ($n = 1$), and parents ($n = 1$). A distinction was made between flats and boarding lodges in that the latter involved household activities which were completed by the house owner, such as preparing meals and washing. The majority of clients resided in facilities registered with the HOMES organisation (68%).

Clients' level of care coincided with the amount of supervision, with higher levels receiving more supervision. Table 11 shows the level of care clients were assigned to immediately prior to transfer and at each community follow-up phase. Clients who were readmitted to a psychiatric hospital, at the time of data collection, were classified as Level Three. Most clients resided in Level Two or Three care homes over the two year follow-up period. However, five clients were transferred to Level One care or independent housing after residing, for a short period, in a Level Two or Three care home which provided an

adjustment programme. The same five client's remained at the lower level of care over the two year follow-up period.

Table 11

Number of clients assigned to each level of care at transfer and each community follow-up.

Level of care	Number of clients			
	At transfer	12 months	18 months	24 months
1	0	5 (17.9)	5 (18.6)	5 (20.8)
2	15 (50.0)	12 (42.8)	11 (40.7)	10 (41.7)
3	15 (50.0)	11 (39.3)	11 (40.7)	9 (37.5)

Note. Percentages reported in brackets

Readmissions

Table 12 shows that most clients were not readmitted to a psychiatric hospital or inpatient unit over the two year period in the community. However, seven respondents were readmitted to a psychiatric ward over the two year follow-up period. The total frequency of readmissions over the two year period ranged from 0 to 11.

Table 12

Number of clients readmitted between each follow-up period

Frequency of Admissions	Number of clients		
	0-12 months	13-18 months	19-24 months
none	24	25	19
1	1	2	1
2	2	0	2
≥3	1	0	2

For the seven respondents who were readmitted, the mean length of stay in a psychiatric hospital was 73 days and ranged from two days to 177 days. Four clients spent less than a month in a psychiatric ward over the 24 months, with no more than two readmissions. However, three clients had repeated hospitalisations that totalled over 112 days (16 weeks). These three clients were described by their caregivers as exhibiting high levels of destructive behaviour either toward themselves or others. They scored above the recommended cut off point of 40 on the REHAB's total general behaviour scale, with a combined mean score of 56. The three clients exhibited frequent maladaptive behaviour, as measured by the REHAB's deviant behaviour scale. Their combined, mean deviant behaviour score across the three community follow-up periods was 3.75 ($SD = 2.67$) in comparison to the remaining sample's mean score of 1.60 ($SD = 1.15$). Their levels of distress were also high with a mean score of 58.0 on the HSCL-21, which was considerably higher than the sample's mean score of 36.4.

Sample mobility

Table 13

Number of moves made by clients between each follow-up period

Number of moves	Number of clients		
	0-12 months	13-18 months	19-24 months
none	14	19	17
1	6	6	2
2	4	1	2
3	3	1	1
≥ 4	1	0	1

Table 13 shows that, while most of the sample remained in the same community residence, some clients moved several times. The total number of moves made by each client over the two year follow-up period ranged from 0 to 11 moves. The two clients had 11 and five

moves each and were the same clients with the highest readmission rates to a psychiatric unit.

The initial high number of movers over the first 12 month period was partially due to improvements in four clients functioning which enabled them to live in less supervised accommodation (see Table 14). Mental deterioration of some type was the primary reason for clients moving, accounting for 48% of all moves over the 24 months.

Table 14

Reasons for clients moving between each follow-up period

Reasons for moves	Number of clients		
	0-12 months (n=14)	13-18 months (n=8)	19-24 months (n=6)
Mental deterioration	4	0	1
Mental deterioration with abusive/ violent behaviour	2	2	2
Mental deterioration (victimisation)	1	0	1
Client preferences	1	4	0
Improvements	4	0	0
Trial placements	1	1	1
Other	1	1	1

CHAPTER 6

DISCUSSION

The main objective of the present study was to evaluate the outcomes of transferring long-term chronically mentally ill clients from Lake Alice Hospital to community residential placements. Clients' community adjustment was assessed using both behaviour rating and self-report scales in accordance with Thornicroft and Bennington's (1989) recommendation of using multiple outcome measures. Descriptive data was also obtained on the types of community resources used, readmissions, moves, and clients who were unsuccessfully placed in the community.

Relationship among scales

Some controversy exists over the usefulness of self-report measures when obtained from schizophrenic samples (Bellack, 1989). The main issue concerns disturbances in information processing which may invalidate the usefulness of self-report data. Consequently, this study initially examined whether self-report measures were viable with the present sample, which was predominantly schizophrenic. The results showed that clients' self-rated level of distress had a moderate relationship with behavioural rating scales of symptomatic behaviour, as predicted from other studies (Deane et al., 1992).

As expected self-report measures of satisfaction were not associated with the behavioural rating scales. No relationship was expected because different attributes were measured and different methods were used to collect the data, with self-report and informant methods being used. Previous studies have typically shown client satisfaction measures to be unrelated with therapist ratings of symptomatic behaviour (Attkisson & Zwick, 1982; Larsen et al., 1979; Pavot & Diener, 1993), as found in the present study. Consequently, it is not surprising that informant completed measures of behavioural problems were not related to measures of client satisfaction.

The results showed the relationships among the self-report scales were moderate to strong in the expected direction at 12 months follow-up. However, the correlation's strength between self-report measures were found to decrease over time which may partly be attributed to the diminished number of participants. The finding that self-report measures were correlated in the expected direction provides some reassurance that the data obtained from the predominantly schizophrenic sample were valid. This is consistent with other studies that have found client satisfaction measures to be related to client ratings of distress, symptomatic behaviour, and subjective well-being (Attkisson & Zwick, 1982; Larsen et al., 1979; Le Vois et al., 1983; Pavot & Diener, 1993). Furthermore, the measures had adequate internal reliability coefficients.

Hospital and Community differences

The results from this study largely supported the hypothesis that chronically mentally ill clients would show no significant changes in their behaviour when transferred from the hospital to community care facilities. General Behaviour scores on the REHAB and the four subscales (speech skills, disturbed speech, self-care, and community skills), on average, remained stable across the hospital and three community follow-up phases. Deviant Behaviour scores also remained stable. The finding that clients' behaviour did not deteriorate when placed into supervised community housing is consistent with previous outcome studies on long-stay chronically mentally ill clients (Francis et al., 1994; Leff, 1992). For example, Macmillan et al. (1992) found chronically mentally ill clients showed no change in their level of functioning when transferred from Sunnyside Hospital, New Zealand, to staffed community accommodation.

Clients' general adaptive behaviour showed a trend, albeit insignificant, toward improvement between the hospital and community follow-ups, suggesting that if any change did occur, on average it was more likely to be towards improvement not deterioration. Therefore, contrary to critics of deinstitutionalisation, the present study provides evidence that community living was, for the most part, not associated with detrimental affects on

clients' adaptive functioning. In addition, a potential problem with the deinstitutionalisation process is that short-term impacts may not be sustained over longer periods (Bigelow et al., 1991). This problem was not found in the present study, with clients' behaviour remaining relatively stable on average.

However, an unexpected improvement was found for clients' social activity scores after they were transferred from the hospital to the community. Social activity scores showed improvements between the hospital and 12 month community follow-up, and the hospital and 18 month follow-up. This improvement was still apparent at 24 months follow-up but was not significant. This unexpected improvement may be a result of increased social contacts, assessed indirectly in the social activity scale. A few studies have found improvements in clients' social contacts after they were transferred from the hospital to the community (Gibbons & Butler, 1987; Knapp et al., 1994). Moreover, the community is likely to offer more opportunities for clients to engage in social activities than Lake Alice Hospital which isolated clients from society.

Maladaptive behaviour

The present study's results supported the hypothesis that clients with higher levels of maladaptive behaviour would be hospitalised more frequently. Clients admitted to a psychiatric hospital over the two year community follow-up period were found, on average, to be more likely to have higher levels of maladaptive behaviour than those who successfully remained out of hospital. This is consistent with previous findings that clients exhibiting more maladaptive behaviour are more likely to be readmitted to a psychiatric hospital (Avison & Speechley, 1987; Tessler & Manderscheid, 1982), and that maladaptive behaviours are particularly incompatible with the successful placement of clients in the community (Bigelow et al., 1988; Fairley et al., 1993).

The hypothesis that clients with higher levels of maladaptive behaviour would be socially isolated and show poorer levels of social adjustment was not supported. The results showed

no difference between clients with high and low levels of maladaptive behaviour for REHAB social activity scores and frequency of contact with family and friends at 18 months follow-up. Therefore, contrary to previous findings, clients engaged in the same amount of social activity and had similar amounts of social contact irrespective of their level of maladaptive behaviour.

A potential limitation is that the separation of clients into high and low maladaptive behaviour groups did not coincide with an ideal cutoff point. Only four clients fell below the 50th percentile range provided by the REHAB manual's norms for long-stay chronic inpatients (Baker & Hall, 1983). Consequently, compared to the REHAB norms, most clients exhibited high levels of maladaptive behaviour even though they were categorised as exhibiting low levels of maladaptive behaviour in the present study.

Correlations between the Deviant Behaviour scale and the REHAB social activity scale, and frequency of contact with family and friends were considered unfeasible because of the inadequate normal distributions. Contact with family and friends had a bimodal distribution and Deviant Behaviour scores had a substantially skewed distribution.

Examination of the individual Deviant Behaviour items indicates that the sample's high levels of maladaptive behaviour were likely to be a result of clients scoring frequently on the item "talking to self". An average of 66.3% of clients exhibited this deviant behaviour once or more a day at each follow-up assessment. In comparison, REHAB norms showed 33% of long-stay inpatients exhibited this behaviour (Baker & Hall, 1983). Nevertheless, the most frequently exhibited behaviours were the least serious. These included talking to oneself and verbal aggression.

Of some concern was the occurrence of self-injurious behaviour. On average at each follow-up period 5% of clients exhibited this behaviour, compared to 0% in a New Zealand study of long-stay psychiatric clients who remained in hospital (Fairley et al., 1993). The

tendency for some clients to engage in self-injurious behaviour indicates that more intensive supervision was needed for some clients to help prevent dangerous behaviour. One particular client attempted suicide several times and was assaultive towards staff. This client also had 12 moves between residences and the highest frequency and duration of admissions, suggesting that the available community residences were not equipped or appropriate for this client. Bigelow et al., (1988) suggest one problem in finding placements for difficult clients is that existing community services are inadequate to meet these clients' additional needs. Furthermore, due to under-funding these, clients place too much strain on already stretched service providers. Bigelow et al., recommend new community facilities that provide more intensive supervision and control, close monitoring, the capacity to intervene quickly, and substantial psychiatric input. This type of supervision appears necessary for some clients in this sample.

Social and everyday living skills

Prior research suggested clients who had better social and everyday living skills, such as frequent social contacts, involvement in leisure activities, taking care of clothes, and cooking ability, had fewer readmissions. However, the present study's results did not support this finding. Clients who scored lower on the REHAB "self-care skills" and "social activity" subscales did not have fewer hospital readmissions. Lower scores on the REHAB indicate better levels of functioning. A possible explanation for this finding is that the two REHAB subscales had five broad items each, which may make them insufficiently sensitive. Previous studies generally used longer scales which may have tapped different and additional aspects of social and everyday living skills than the REHAB scales (e.g. Presly et al., 1982; Tessler & Manderscheid, 1982).

It was also predicted that clients who had fewer social contacts would have lower general adaptive functioning. The results showed that clients who had frequent contact with friends, family, or both (once every two weeks or more), had higher general adaptive functioning than clients with less contact. Specifically, clients who had more frequent social contacts

showed better adjustment on social activity, speech skills, disturbed speech, community skills, and total general adaptive functioning, as measured by the REHAB scale. This is consistent with previous studies that have found increased social contacts to be related to better adaptive functioning (Avison & Speechley, 1987; Kruzich & Berg, 1985).

However, an unexpected finding was that clients who had frequent social contacts with family and friends were not found to have better scores on the REHAB self-care scale than clients with fewer social contacts. Therefore, clients' self-care skills were found to be the same for clients who had low and high levels of social contact. This finding suggests that social contacts, commonly used as a measure of social skills or integration (e.g. Avison & Speechley, 1987; Kruzich & Berg, 1985), were independent of clients' self-care skills. Consequently, individuals with high social skills may not necessarily have high self-care skills. This finding is inconsistent with previous research which has typically found clients to have both deficient social and self-care skills (e.g. Bigelow et al., 1988).

The frequency of contact with family and friends for the present sample was comparable with those found in other New Zealand studies (Macmillan et al., 1992; Sheerin & Gale, 1984). In the present study, 30.8% of clients had contact with their family once a month or more and 38.5% reported no contact with family in the past six months. Frequency of contact with friends was a little higher with 38.5% of clients reporting contact with friends once a month or more and 34.6% of clients having no contact over the past six months. In comparison, Sheerin and Gale (1984) reported 41% of clients had contact with family, and 51% with friends, once a month or more. Furthermore, nearly all respondents in the present study said they visited friends rather than friends visiting their place of residence. This finding that many clients remained socially isolated indicates the need for continued community support and integration (e.g. Bigelow et al., 1991; Macmillan et al., 1987).

The affect of age on community adjustment

The results did not support the hypothesis that older clients would show lower levels of adaptive functioning than younger clients. However, the mean REHAB General Behaviour scores at 12 months follow-up indicated a trend towards younger clients showing higher levels of general adaptive functioning. As a group, older clients' general adaptive functioning varied substantially while younger clients consistently showed better adaptive functioning. The large individual differences found for older clients may explain why age differences on adaptive functioning were not as substantial as predicted.

Age showed a significant moderate correlation with clients' general adaptive functioning, with adaptive functioning deteriorating as age increased. This finding is consistent with previous studies that have found a relationship between older clients and more impaired functioning (e.g. Avison & Speechley, 1987; Hadley et al., 1993).

Social contact was also assessed to determine if older clients' social involvement was lower than younger clients. Based on previous findings that older clients show more impaired functioning, it was assumed that they would also be likely to have fewer social contacts than younger clients. The present study's results showed older clients had fewer social contacts with friends than younger clients. In most cases clients visited friends rather than friends visiting them. It is possible that older clients had fewer contacts with friends because they had age related disabilities that inhibited their ability to move around society as freely as younger clients. This is consistent with the findings of Kruzich and Berg (1985) who found age was significantly correlated with clients' levels of self-sufficiency and Bootzin et al.'s (1989) finding that older psychiatric clients transferred from the hospital to nursing facilities became less active. However, another possibility for older clients having fewer contacts with friends is that they may have fewer friends alive to socialise with.

It was also assumed that family contact would be lower for older clients. However, the frequency of family contact was found to be the same for older and younger clients. The

frequency of contact with family and friends varied substantially for younger clients but tended to remain consistently low for older clients. This suggests that there is a subgroup of younger participants who have infrequent or no family contact. The large variance in younger clients' contact with family may explain why no significant difference was found between age and family contact. Another possible explanation was that family members were more likely to visit the client's place of residence. Hence, older clients would not have to leave their place of residence as they would for social contacts with friends.

The study's results showed a moderate negative correlation between age and frequency of readmissions over the 24 month follow-up period but it was not statistically significant. This was contrary to previous findings that have shown age to be correlated with readmission rates, whereby younger clients tend to be more frequently readmitted to a psychiatric hospital (Avison & Speechley, 1987). This insignificant relationship between age and readmissions may be partly attributed to the small number of participants readmitted to a psychiatric unit which created a substantially skewed distribution, and such distributions lead to deflated correlations (Tabachnick & Fidell, 1989). A second explanation may be that readmissions were totalled over the 24 months, with fewer older participants remaining in the study at this time point, due to mortality.

In general, older participants showed more promising outcomes than other studies involving older clients. For example, Farkas et al.'s (1987) study found most older clients were unable to remain in the community while Bootzin et al. (1989) found older clients deteriorated when transferred to nursing facilities. In contrast, the present study's sample did not deteriorate in their level of functioning and were able to remain in their community placements, with only one client over the age of 50 being readmitted to a psychiatric hospital. The avoidance of readmissions to a psychiatric unit or hospital suggests that deinstitutionalisation for this older sample appeared successful. It may be that the community housing provided for this older sample was better equipped to handle older

chronic clients or that the present sample had better levels of functioning than the previous studies' samples.

Prior length of hospitalisation

Prior length of hospitalisation was found to have a significant moderate correlation with clients' general adaptive functioning at 12 and 18 months follow-up. However, at 24 months follow-up this relationship decreased in magnitude. The finding that clients with longer hospitalisation histories had more impaired adaptive functioning is consistent with Avison and Speechley's (1987) findings. The decrease in the strength of the correlation between hospitalisation history and clients' adaptive functioning at 24 months follow-up may partly be attributed to diminished subject numbers. A second explanation is that age acted as a confounding variable, with fewer older participants remaining in the study at 24 months follow-up. These older participants had longer current hospitalisation histories and were more likely to have impaired adaptive functioning. Therefore, age may account for this relationship with adaptive functioning rather than hospitalisation history.

A potential limitation in using prior length of hospitalisation as an indicator of community adjustment is that it only included clients' most recent length of stay at Lake Alice Hospital. Clients' prior admissions at Lake Alice Hospital or other psychiatric hospitals were not incorporated. Consequently some clients may have had longer hospitalisations than those recorded for the present study.

Client satisfaction

Non-respondents were compared with respondents on variables thought to be associated with increased levels of satisfaction. The results showed no significant difference between respondents and non-respondents on gender, diagnosis, age, and prior length of hospitalisation at 12, 18, and 24 months follow-up. This finding helps strengthen the conclusion that respondents were representative of the sample.

The results supported the hypothesis that clients would be more satisfied with community services than hospital services after 12 months of residing in the community and that satisfaction with community services would remain stable over time. Clients showed a significantly higher level of satisfaction with community services than hospital services, as assessed by the CSQ-8. This finding that clients were more satisfied with community services is also likely to be conservative because three clients declined to complete the CSQ-8 relating to hospital services, verbally indicating they wanted nothing to do with Lake Alice Hospital. This is consistent with other studies that have found clients prefer to live in the community compared to the hospital (Macmillan et al., 1992; Sheerin & Gale, 1984). Nevertheless, not all clients shared this view. Two clients stated that they wanted to return to Lake Alice Hospital with both clients showing difficulties in adjusting to the community. These clients represented two of the three clients who spent a substantial length of time readmitted to a psychiatric unit when in the community.

In addition, at the 24 month follow-up period clients were not significantly more satisfied with community services than hospital services, as they had been at 12 months follow-up. This finding suggests that although clients preferred to live in the community, they were about equally satisfied with the hospital and community services at 24 months follow-up.

The results also showed that clients were generally very satisfied with the community services, a finding consistent with previous research (e.g. Lebow, 1983). Eighty percent of the present sample were globally satisfied with the mental health services they received in the community. In comparison, 90% of clients receiving psychotherapy at a New Zealand outpatient clinic were globally satisfied with the services they received, as measured by the CSQ-8 (Deane, 1993).

Furthermore, the present sample was not found to be significantly less satisfied with services than 93 outpatients receiving psychotherapy (Deane, 1993). Further evidence that the present sample had comparable levels of satisfaction with the psychotherapy group is

that the analysis was made between two very different sample sizes, 11 and 93 for the present and comparison samples, respectively. Large differences in the samples are likely to lead to inflated Type I error (Tabachnick & Fidell, 1989). In addition, previous research has found that clients with more serious psychiatric problems tend to be less satisfied than less impaired clients (Attkisson & Zwick, 1982; Corrigan, 1990; Le Vois et al., 1981). However, the present chronic long-stay sample were equally satisfied with services as less impaired psychotherapy clients.

The present study also gave careful consideration to overcoming biases and reactivity problems associated with the assessment of client satisfaction. To counteract difficulties with sampling biases, the present study included all clients selected for discharge irrespective of age or degree of psychopathology. Many previous studies investigating deinstitutionalisation have excluded clients over 65 years of age and have tended to focus on those who have less severe psychopathology, limiting the generalisations that can be made from their findings to more disturbed populations (Lebow, 1982a, 1982b). To reduce response distortions arising from demand characteristics of the rating situation, the present study followed the guidelines suggested by Lebow (1983). In particular, an independent evaluator was used to collect data, and clients were reassured assessments were to evaluate services not clients and that only group data would be reported, not individual data. Consequently, the present sample's responses are less likely to be distorted towards favourable outcomes.

The sample was found to have, on average, significantly higher scores on the SWLS than 27 clients receiving psychotherapy in the United States (Pavot & Diener, 1993). Pavot and Diener provide normative data for the SWLS from several studies. Furthermore, the present sample was compared with a psychotherapy group rather than the veteran inpatient group, which had a lower mean score again, to help keep the estimate conservative. The present sample also had nearly identical means with various American student samples whose life conditions should be more ideal and satisfactory than that of mentally ill samples.

Nevertheless, a definite problem remains with cross cultural comparisons. The lack of New Zealand data on the SWLS makes it impossible to determine whether satisfaction levels found overseas are comparable with New Zealand samples. Despite this limited data, subjective well-being is becoming increasingly emphasised as an important criteria for assessing the success of deinstitutionalisation (Simmons, 1994; Sylvester & Bean, 1989). Furthermore, this study may provide an impetus for further New Zealand studies to investigate mentally ill clients' subjective well-being.

It could be speculated that the present sample was globally satisfied with their lives because they received appropriate community care. Baker and Douglas (1990) investigated clients' perceived quality of life and found it to improve when clients were provided with supportive community accommodation that provided programmes based on their individual needs. They concluded that the conditions of the client's housing environment has a significant impact on their perceived well-being.

Service utilisation in the community

Consistent with Brewin et al. (1988), the present study found psychotropic medication and sheltered residence were the most commonly used services in the community. Nearly 60% of clients received two or more types of medication at each community follow-up phase and only three clients at any time point received no medication. This finding suggests that medication provides a major role in the management of chronically mentally ill clients in the community. In addition, it was not surprising that most clients resided in sheltered accommodation where their needs were provided for by caregivers since most chronically mentally ill do not achieve independent living, but rather remain in highly supervised accommodation (e.g. Francis et al., 1994; Macmillan et al., 1992).

Critics of the deinstitutionalisation movement have accused community care of failing to provide sufficient housing for mentally ill clients, leaving them to meet their own needs and coordinate between community services (e.g. Burns et al., 1994; Shadish et al., 1989). However, for the present sample this did not seem to be a problem because most clients lived in sheltered accommodation. Those clients not residing in sheltered accommodation had sufficient adaptive functioning to live in their own home, flat or board. For the most part, neglect and homelessness, frequently reported as an adverse consequence of deinstitutionalisation (e.g. Smith et al., 1993), had not taken place for clients in this study.

Another concern raised by implementation theorists and researchers is that services implemented may differ from those planned and funded (Bigelow et al., 1991; Shadish et al., 1989). The primary services outlined by the Mental Health Strategic Planning Document included psychiatric assessment, ongoing treatment, advice and support, and the provision of key workers or case managers (Manawatu-Wanganui Area Health Board, 1992). Most clients had contact with a psychiatrist and psychiatric nurse, and received individualised programmes which included ongoing treatment, advice, and support. Key caseworkers were used to a lesser extent but over 50% of clients still used this service. Most clients who did not use this service were living in independent housing, retirement homes, or a profit oriented home registered with the HOMES organisation. The manager of this latter home had some difficulty in obtaining assistance from key caseworkers for the resident's. Nevertheless, services used by clients largely reflected those services that were intended to be implemented. Furthermore, the use of services by clients appeared to remain the same over the two six month intervals, showing that services were not being eroded over time.

Brewin et al. (1988) maintain that the mere use of services does not necessarily mean they are adequate. Consequently, caregivers or house managers were asked if they were able to provide the types of services they would like for tenants (see Appendix E). Responses varied from being able to provide a good balance of services to a number of suggestions to

improve services. In most cases caregivers were satisfied with the services but wanted some changes. Responses from the six housing facilities registered with the HOMES organisation indicated two areas that needed improvement. Four facilities indicated that waiting lists often prevented clients from participating in the programmes organised by the Community Mental Health Teams and many of these programmes were not suitable for clients with lower levels of functioning. Half the facilities indicated that they would like to see more work experience provided for clients and weekend recreational activities. In all cases, a lack of funding and staff were given as reasons for not being able to provide the services they would like.

In contrast, the caregivers of two clients residing in rural areas found little support was offered and no community programmes were available to the clients. Rural areas were defined as having a population of up to 5000 people (New Zealand Department of Health, 1989). Both caregivers living in rural areas indicated that increased support would be helpful, corresponding with previous suggestions for improving community mental health services (New Zealand Board of Health, 1987). Retirement homes did not use the community mental health services but felt they would be useful if the need to use them ever arose. These responses from caregivers suggest that improvements can be made to existing community mental health services.

Readmissions and moves

The definition of deinstitutionalisation stipulates the avoidance of future psychiatric hospital readmissions (Aviram, 1990). Readmissions to psychiatric hospitals have repeatedly been used in other studies to define the success of community adjustment (e.g. Avison & Speechley, 1987; Bootzin et al., 1989; Tesseler & Manderscheid, 1982).

The present study's results showed that most clients were not readmitted to a psychiatric unit over the two year period in the community. However, seven clients were readmitted at some point over the two year follow-up period and the number of readmissions were

substantially higher than those found in Macmillan et al.'s (1992) study. Approximately 14%, 7%, and 17 % of clients were readmitted at 12, 18, and 24 months follow-up, respectively. In contrast, Macmillan et al. (1992) found 1%, 2%, and 0% of clients needed to be rehospitalised across three successive six month intervals. Frequency of rehospitalisation was calculated over 12 months for the first data collection which may partly account for the higher readmissions at this time point. However, the highest reported admissions occurred between 18 and 24 months follow-up. Furthermore, three of the seven clients who were readmitted had repeated admissions that totalled over 16 weeks for the two year period. These three clients had impaired adaptive functioning, high levels of maladaptive behaviour, repeatedly moved between community placements and were described by their caregivers as exhibiting high levels of destructive behaviour either towards themselves or others. The three clients also reported much higher levels of distress than the remaining sample. These results indicate that up to 10% of clients first transferred from Lake Alice Hospital did not successfully adjust in the community and that a revolving door pattern of frequent hospital readmissions had developed. Frequent readmissions is a potential problem often raised by critics of the deinstitutionalisation movement (e.g. Bellack & Mueser, 1986; Smith et al., 1993).

The present results showed that most clients were able to maintain stable housing. Of those clients who moved, mental deterioration of some type was the primary reason for their moving, accounting for nearly 50% of all moves over the 24 months. This finding suggests that client functioning tended to fluctuate in the community which is consistent with findings that mental illness tends to be cyclical (e.g. Aviram, 1990). Consequently, continuous community care and support that provides long-term housing assistance is recommended for these clients. This recommendation is in accordance with other researchers who have found successful community programmes incorporate these components (e.g. Bigelow et al., 1991; Taylor, 1990; Thornicroft & Bebbington, 1989).

Limitations of research and future recommendations

Limitations caused by practical constraints when conducting field research are outlined in this section, followed by possible explanations for why some predictions were not supported. Several recommendations for future research are presented.

Despite the potential benefits of the selected longitudinal design, limitations include the expensive and time consuming nature of the design. This resulted in a compromise of using a smaller sample size but one which could be more intensively followed-up. Mortality difficulties further reduced the sample size. Some participants were lost due to tracking difficulties over time, a particular problem when studying mentally ill who are transient (Lebow, 1983). Repeated data collections also provided more opportunities for clients to refuse participation. These difficulties were found each time informed consent was obtained in the present study. Several participants were also unable or unwilling to complete the self-report questionnaires. This small sample size reduced the power of the statistical analyses and the subsequent generalisations that can be made from the present results (Avison & Speechley, 1987).

The present sample was also very heterogeneous which hindered some of the findings. For example, the present clients' level of adaptive functioning was diverse, as indicated by the large standard deviations on the REHAB scale (see Table 6 in the results). The mean scores indicated a trend toward clients improving but the wide spread of scores may have obscured more consistent changes. The combination of a small and heterogeneous sample made analysis of some subsample characteristics impractical. Furthermore, adjusted degrees of freedom were used on several occasions because of high between-group variation in standard deviations. Consequently, larger sample sizes are needed in future research to counteract high dropout rates and enhance the statistical power of the analysis. A second recommendation is that more homogeneous samples be used to determine if particular groups have certain attributes that inhibit their community adjustment.

Another limit was that the first 30 chronically mentally ill clients transferred from Lake Alice Hospital were selected as opposed to a random sample. A random sample was not possible because community placements had not been found for later cohorts when this study was initiated. Specifically, early movers from hospital closures are typically less dependent and exhibit fewer symptoms of mental illness compared to cohorts remaining in hospital (e.g. Knapp et al., 1990, Leff, 1992). Similarly, in an earlier study on discharge planning, Deane and associates (1995) found the present 30 clients to manifest less disturbed behaviour than their cohorts still remaining in the hospital. General Behaviour scores on the REHAB indicated an improvement in client functioning across the six month interval prior to their discharge and at the second hospital baseline this improved functioning was greater than their cohorts remaining on the wards. Consequently, the selected sample does not represent all "tail end" long-term mentally ill clients but rather those who are initially transferred from the hospital. Nevertheless, the selection of the first 30 clients is useful in that it provides an overview of the best adjustment that can be expected for long-term chronically mentally ill clients left behind from the mainstream efforts of deinstitutionalisation. Ideally a comparison group of later cohorts who have shifted to community accommodation would have been used to determine the extent of differences between early and late transferrals but this was not possible due to time and financial constraints.

A limitation that poses a greater threat was the delay of measures for clients experiencing heightened psychotic symptoms. In particular, clients' self-report assessments were delayed until they returned to more stable functioning. Occasionally REHAB assessments were also delayed if clients were hospitalised until they returned to their normal place of residence. Delayed assessment was avoided where possible. These sample biases of including earlier movers and delaying assessments are likely to tilt the present results toward more favourable outcomes. Consequently, the present results need to be interpreted with caution and probably reflect a somewhat more positive light on the client's community adjustment than could be expected for those clients who were subsequently transferred from Lake Alice

Hospital. In addition, the present study's results showed some clients did not adjust well in the community. The poor outcomes for these clients who were likely to have had delayed assessments highlight the importance of further research to monitor later client groups who remain hospitalised and are more likely to have a poorer outlook (Leff, 1992).

Constraints were also placed on the selection of instruments. Due to repeated administrations and the use of multiple measures, brief or global instruments were selected as far as possible to reduce the demands placed on participants and staff. This was imperative for the sample who were often characterised by low motivation, mood fluctuations, and a tendency to tire. Previous research has found response rates decline as questionnaires become longer and more measures are presented (Lebow, 1983). The present study aimed to minimise such resistance by utilising brief measures yet problems still arose in some cases. For example, questionnaires were expected to take about 15 minutes to complete but many respondents took at least 30 minutes, with some taking over an hour. This resulted in some respondents becoming irritated and restless, with some declining to finish the questionnaires. More willing participants had the questionnaires completed in phases and a few clients were happy to participate if they could do nothing except give consent for staff completed measures.

Another difficulty was that the only hospital baseline data collected were REHAB's, which were collected as part of the hospital's discharge planning process. The other measures were added after a request was made for an evaluation of the affects of transferring clients to the community. Consequently, hospital baseline data was restricted and satisfaction variables, considered important in assessing clients' progress, were not able to be compared with hospital baseline measures of satisfaction (Simmons, 1994; Sylvester Bean, 1989). This was a particular problem with the CSQ-8 related to prior hospital services in that clients had to complete the questionnaire 12 months after transfer. Consequently, clients relied on recall increasing the probability of memory distortions.

Future research would benefit from including objective measures of client satisfaction while clients were hospitalised to reduce the likelihood of distorted memories. Although the present study has contributed information concerning the impact of deinstitutionalisation on chronically mentally ill clients' welfare from a client perspective, further research is needed in this area. Further research is needed because of the limited number of studies on chronically mentally ill clients' satisfaction, especially subjective well-being, and the failure to use psychometrically sound instruments.

The present study did not find clients who had better self-care and social skills to have fewer readmissions, as previous studies have shown. A suggested reason was that the REHAB subscales were too global and brief to capture specific components of self-care and social skills that have been found in previous studies. It would be useful for future research to use more specific scales to determine if certain skills are associated with better community adjustment. The identification of specific skills that inhibit community adjustment would be useful for service providers so clients at risk of maladjustment can be detected and programmes tailored to meet these clients' needs (Avison & Speechley, 1987). In addition, the terms social and self-care skills may have many meanings to service providers and clarification of the specific skills associated with poor outcomes would be useful for programme planners.

Social contacts were found in the present study to be higher for those clients with better adaptive functioning. However, the role social involvement plays in clients' community adjustment is unclear. Social involvement has been used as an objective indicator of one's quality of life and a measure of social integration or social skills (e.g. Lehman et al., 1982; Lehman, 1983; Kruzhich & Berg, 1985). Social involvement has also been related to social support (Sheerin & Gale, 1984). It has been argued that social contacts provide a buffer against stressful life events which in turn reduces clients' levels of psychological distress and impairment (Heitzmann & Kaplan, 1988). Further research is recommended to help clarify the process social involvement plays in clients adjustment. In line with Avison and

Speechley (1987), it is suggested that social involvement or support be conceptualised as a dynamic variable that can moderate the relationship between stressful life events and psychological distress.

In the present study, social skills, as assessed by social contacts, were found to be the same for clients irrespective of their level of self-care skills. This finding suggests that clients who appear competent socially may not necessarily have adequate self-care skills. Further research is recommended to determine whether deficient social skills are independent of self-care skills. This research may be beneficial in determining whether clients who have good social skills and appear well-adjusted have deficient self-care skills that go unattended.

In summary, there are a number of limitations associated with the present study. The primary limitations included using a small and heterogeneous sample, having high drop out rates especially on self-report measures, using clients who were first transferred and delayed assessments which were likely to create more favourable outcomes, and the use of global measures. Consequently the present study's results need to be interpreted with caution. Several suggestions for further research were recommended to counteract some of these difficulties and to increase the validity and generalisability of the results to the rest of the long-stay chronically mentally ill population in New Zealand.

CHAPTER 7

CONCLUSION

Summary of the present study's findings

The present study was undertaken to evaluate the impact of transferring long-stay chronically mentally ill clients from Lake Alice Hospital to community placements, and arose in response to the criticisms and uncertainty over whether deinstitutionalisation is beneficial for these clients. The results of the present study showed that long-stay chronically mentally ill clients who are placed into community homes with ongoing supervision can live successfully in the community. The clients' adaptive functioning showed a trend toward improvements when transferred to the community, suggesting that changes were more likely to be toward improvement than deterioration. Furthermore an unexpected improvement was found in clients' social activity. It was proposed that this improvement resulted from the greater opportunities for clients to engage in social activities in the community compared to the hospital which secluded clients from society.

In general the present sample appeared to have high levels of maladaptive behaviour, yet most were successfully placed into the community. This suggests that with ongoing supervision this maladaptive behaviour can be managed in the community. Nevertheless, clients who exhibited more frequent maladaptive behaviour were more often readmitted to a psychiatric unit or hospital than clients with lower levels of maladaptive behaviour.

Many of these chronically mentally ill clients tended to have few social contacts with family and friends, and clients who had more frequent contact with friends and family showed better adaptive functioning. Clients who appeared to function more poorly in the community tended to remain more socially isolated. The results also showed that older clients were more likely to be socially isolated and tended to have lower levels of adaptive functioning, compared to younger clients. In spite of this finding, these older chronically

mentally ill clients showed better community adjustment than most previous outcome studies involving older psychiatric clients.

The results also showed that clients were more satisfied with the community services than the hospital services and were overall very satisfied with the community services. This sample had comparable levels of satisfaction with a clinical sample receiving psychotherapy. Although clients were globally satisfied with the community services, caregivers made a number of suggestions to improve these services. Clients' subjective well-being also appeared favourable when compared with other clinical samples.

The services most commonly used by the mentally ill clients in the community were psychotropic medication and sheltered residence. Most clients were not readmitted to a psychiatric unit and were able to maintain stable housing. For those clients who did not maintain stable housing, mental deterioration was the main reason for their moving.

Despite the positive outcomes, some clients showed poor community adjustment after being transferred from Lake Alice Hospital. In particular, three clients experienced frequent and lengthy rehospitalisation, exhibited high levels of maladaptive behaviour including self-injurious behaviour, showed poor levels of adaptive functioning, and appeared more distressed than other clients in the sample. Two of these clients also expressed a desire to return to Lake Alice Hospital. Therefore, up to 10% of this sample, who were "most likely to succeed" because they were the first clients transferred from Lake Alice Hospital, appear to be at risk of poor community adjustment.

Practical implications

The present study's findings have a number of practical implications for both clients and people who work in the community mental health services. The finding that most clients successfully adjusted to community living suggests that the community mental health services are largely on track for clients first transferred as a result of hospital closures.

Nevertheless, the finding that up to 10% of these clients did not adjust to community living suggests that more intensive supervision is needed for some clients to help prevent destructive behaviour. Caregivers also reflected this opinion. They found that most community mental health programmes did not target clients with lower levels of adaptive functioning and waiting lists prevented some clients from participating. Clients and caregivers in rural areas also appeared to need more support. The primary reason given by caregivers for these difficulties was a lack of funding. Bigelow et al. (1988) also asserted that a lack of funding was one reason why difficult clients were hard to place in the community.

Another important implication is that if community support and ongoing supervision were withdrawn, neglect and impoverishment would be likely to occur for this sample. Two important findings lead to this conclusion. First, clients tended to remain socially isolated from friends and especially family, and second, clients' mental illness appeared cyclical in that several clients moved placements because of their deterioration in functioning.

Caregivers and service providers may need to be aware that clients who appear socially adept may still have deficient self-care skills because clients' self-care skills were found to be the same irrespective of their level of social involvement. Older clients also appear to need more services brought to their place residence compared to younger clients. This suggestion was based on the finding that older clients tended to have poorer adaptive functioning and remained more socially isolated than younger clients. It was suggested that older clients had more age related disabilities that inhibited their movement around the community.

Finally, the criticism that self-report measures are of little use when obtained from chronically mentally ill clients, particularly schizophrenic clients, was not supported by the present study. Clients' self-report measures showed adequate correlations with one another and clients' ratings of distress were related to behavioural measures of symptomatic behaviour. Thus, assessments using self-report appear to produce viable and satisfactory measures of clients' adjustment.

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APPENDIX A: Rehabilitation Evaluation Hall and Baker scale (Hall & Baker, 1983).



R ehabilitation E valuation H all A nd B aker

Patient/client/resident's name
 Patient/client/resident's number
 Date of birth Sex
 Ward/Unit
 Rater's name
 Date of rating

This form is in two parts:

Part 1. is concerned with the patient/client/resident's difficult or embarrassing behaviour.

Part 2 (overleaf) is concerned with the patient/client/resident's general social and everyday behaviour.
 You will indicate your answers to the questions in different ways in the two sections.

Please read the instructions for answering each part.

ASSESSMENT FORM

Part 1. Deviant Behaviour

Instructions

These seven questions are all concerned with particular types of deviant, or embarrassing behaviour. Each question is followed by three possible answers. The answers show how often a type of behaviour happened. You answer each question by ticking the ONE box which best describes the patient's behaviour last week. Take account of any reports of incontinence, etc., which happened when you were not with the patient during the week.

Before you begin remember to:

1. Only consider the patient's behaviour over the LAST WEEK.
2. Tick only ONE box for each question.

1. Was the patient incontinent?

Incontinent of urine and faeces and urine more than once in the week. Incontinent once in the week. No incontinence.

5. Did the patient leave the ward or hospital without arrangement?

Patient left without arrangement for long period, or returned an hour or more late, more than once in the week. Left without arrangement once in the week. Present when wanted, returned as arranged.

Note that the next two questions are about behaviour that occurred once or more a DAY rather than once or more a WEEK.

6. Did the patient shout or swear at others?

Shouted or swore at others (for example, used aggressive tone of voice) more than once every day in the week. Shouted or swore on average once a day, or on only some days in the week. No shouting or swearing.

2. Was the patient physically violent?

Violent (for example, hit someone, broke something) more than once in the week. Violent once in the week. No violence.

7. Did the patient talk or laugh to himself/herself?

Episodes of talking to self, or outbursts of laughing/giggling more than once every day in the week. Talked or laughed to self on average once a day, or on only some days in the week. Did not talk to self.

Did the patient hurt or mutilate him/herself?

Hurt self (for example, hit own eye, cut self) more than once in the week. Hurt self once in the week. No self injury.

Apart from the deviant behaviour that occurred last week, what else has occurred during the Last Year? Tick the box concerned and write alongside approximately when the behaviour occurred.

When did the behaviour last happen?

1. Incontinence
2. Violence
3. Self mutilation
4. Sexual offensiveness
5. Absent without arrangement
6. Shouting at others
7. Talking to self

Was the patient sexually offensive in any way?

(Judge offensiveness as a stranger would)
 Offensive more than once in the week. Offensive once in the week. No offensive behaviour.



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Part 2. General Behaviour

Instructions

These sixteen questions are all concerned with the social and everyday behaviour of the patient. Each question is followed by a line. Next to each line are three statements. The statements range from the worst possible standard of behaviour at the left, to the standard of behaviour expected from 'normal' people at the right. You answer each question by putting a mark through the line at the point which best shows how the patient has been during the last week. YOU MAY MAKE YOUR MARK AT ANY POINT ON THE LINE.

Before you begin remember to:

1. Use the standard of ordinary life outside the hospital.
2. Only consider the patient's behaviour over the LAST WEEK.
3. Make your rating by putting a mark THROUGH the line.

8. How well did the patient get on with others On the ward or unit?

Very poor relationship with other patients. Solitary and withdrawn.

Got on with some patients part of the time.

Got on well with other patients.

9. How much did the patient mix with others Off the ward or unit?

Did not mix socially outside the ward.

Went to hospital socials and mixed, or went to see patients on other wards.

Mixed socially outside hospital.

10. What did the patient do with his/her spare time?

Ignored all activities around him/her. Showed no interest in anything.

Occasionally joined in games and activities. Occasional interest in news and events.

Joined in activities willingly. Had definite interests. Read papers and magazines.

11. How active was the patient?

Sat or lay most of the time in one place, without moving.

Periods of inactivity, but otherwise moved reasonably normally.

Normal amount and speed of activity.

12. How many words did the patient use when he/she spoke?

None, or occasional sounds.

Spoke in short sentences only.

Talked for a normal length of time.

13. How much did the patient initiate conversation?

If mute, tick this box

Patient never started off a conversation themselves.

Occasionally started a conversation.

Started conversations with staff and patients.

14. How sensible was the patient's speech?

If mute, tick this box

Are, delusional,umbled speech. Impossible to make sense of what was said.

Talked some nonsense and some sense.

Talked sensibly and to the point.

15. How clearly did the patient speak?

If mute, tick this box

Speech unclear, impossible to tell what was being said.

Speech partly unclear, but could be mainly understood.

Speech was easily heard and understood.

16. How good were the patient's table manners?

Table manners. Food all round, used spoons, scoffed (if staff patient rate here)

A bit messy. Spilt some food on self.

Ate normally. Did not spill food. Would not have stood out in a cafe.

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and care for him/herself?

Did not wash (or shave). Face, hands and hair were dirty and untidy. (If staff washed or shaved patient rate here)

Attempts to wash (or shave) were not very regular or of good quality. A bit dirty.

F
Three

18. How well did the patient dress him/herself?

If not known tick box

Made a mess of dressing. Buttons undone, clothes disarranged, items of clothing missing. (If staff dressed patient rate here)

Dressed self, but usually poor in one or two ways.

br

19. How well did the patient look after his/her own things?

If not known, tick box

Bed unmade, clothes anywhere, rubbish around bed area/bedroom. (If staff made patient's bed rate here)

Made bed untidy. Clothes not put away properly. Bedroom/bed area looked a bit untidy.

Clo
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20. How much prompting or help did the patient need to do things for him/herself?

Cared for self and did things only if constantly supervised, or tasks had to be done by staff.

Patient did things with some prompting.

21. How well did the patient manage money?

Poor use of money. Failed to use it, lost it, spent it all as soon as he/she got it. (If patient had no money, or if it was looked after by staff, rate here)

Spent some money on simple purchases.

Used m for var
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22. Did the patient use public facilities outside hospital?

Never left hospital.

Visited local shops or park outside hospital.

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Overall Rating

23. How good was the patient's general everyday behaviour last week?

Taking everything into account, very poor socially and at doing things for self.

Several problems were present which would affect the patient's ability to live outside hospital.

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In answering the questions so far you have considered the patient's behaviour during the last week. On the whole, was the patient's behaviour during the week:

better than usual

about the same as usual

worse than usual

Please add any comments that you wish to make about the patient's behaviour:

APPENDIX B: Client Satisfaction Questionnaire-8 (Larsen, Attkisson, Hargreaves, & Nguyen, 1979).

DIRECTIONS: We would like you to answer some questions about the mental health services you have received since you have been in the community. We are interested in your honest opinion, whether positive or negative. Please answer all of the questions. Thank you very much, we really appreciate your help.

CIRCLE YOUR ANSWER

1. How would you rate the quality of the service you have received?

4	3	2	1
Excellent	Good	Fair	Poor

2. Did you get the kind of service you wanted?

1	2	3	4
No, definitely not	No, not really	Yes, generally	Yes, definitely

3. To what extent has the programme met your needs?

4	3	2	1
Almost all of my needs have been met	Most of my needs have been met	Only a few of my needs have been met	None of my needs have been met

4. If a friend were in need of similar help, would you recommend the programme to him or her?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

5. How satisfied are you with the amount of help you have received?

1	2	3	4
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied

Have the services you received helped you deal more effectively with your problems?

4	3	2	1
Yes, they helped a great deal	Yes, they helped somewhat	No, they really didn't help	No, they seemed to make things worse

In an overall, general sense, how satisfied are you with the service you have received?

4	3	2	1
Very satisfied	Mostly satisfied	Indifferent or mildly dissatisfied	Quite dissatisfied

If you were to seek help again, would you come back to the programme?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think	Yes,

APPENDIX C: Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985)

The following questions concern satisfaction with life. There are five statements with which you may disagree or agree. Using a 1-7 scale, please indicate your agreement with each item by circling the appropriate number.

1. In most ways my life is close to ideal.

1	2	3	4	5	6	7
Strongly	Slightly		Neither agree	Slightly	Strongly	
-----Disagree-----			or disagree	-----Agree-----		

2. The conditions of my life are excellent.

1	2	3	4	5	6	7
Strongly	Slightly		Neither agree	Slightly	Strongly	
-----Disagree-----			or disagree	-----Agree-----		

3. I am satisfied with my life.

1	2	3	4	5	6	7
Strongly	Slightly		Neither agree	Slightly	Strongly	
-----Disagree-----			or disagree	-----Agree-----		

4. So far I have achieved the important things I want in my life.

1	2	3	4	5	6	7
Strongly	Slightly		Neither agree	Slightly	Strongly	
-----Disagree-----			or disagree	-----Agree-----		

5. If I could live my life all over again I would change nothing.

1	2	3	4	5	6	7
Strongly	Slightly		Neither agree	Slightly	Strongly	
-----Disagree-----			or disagree	-----Agree-----		

APPENDIX D: Hopkins Symptom Checklist-21 (Green, Walkey, McCormick, & Taylor, 1988).

DIRECTIONS: How have you felt during the past seven days including today? Circle the appropriate number to describe how distressing you have found these things over this time.

	NOT AT ALL	A LITTLE	QUITE A BIT	EXTREMELY
Difficulty in speaking when you are excited.....	1	2	3	4
Trouble remembering things.....	1	2	3	4
Worried about sloppiness or carelessness.....	1	2	3	4
Blaming yourself for things.....	1	2	3	4
Pains in the lower part of your back.....	1	2	3	4
Feeling lonely.....	1	2	3	4
Feeling blue.....	1	2	3	4
Your feelings being easily hurt.....	1	2	3	4
Feeling others do not understand you or are unsympathetic.....	1	2	3	4
Feeling that people are unfriendly or dislike you.....	1	2	3	4
Having to do things very slowly in order to be sure you are doing them right.....	1	2	3	4
Feeling inferior to others.....	1	2	3	4
Soreness of your muscles.....	1	2	3	4
Having to check and double check what you do.....	1	2	3	4
Hot or cold spells.....	1	2	3	4
Your mind going blank.....	1	2	3	4
Numbness or tingling in parts of your body.....	1	2	3	4
A lump in your throat.....	1	2	3	4
Trouble concentrating.....	1	2	3	4
Weakness in parts of your body..	1	2	3	4
Heavy feelings in your arms and legs.....	1	2	3	4

APPENDIX E: Questions for service providers

Q1 Did you have any problems with the tenants initial adjustment when they first came here?

Q2 Has the tenant shown any changes over the last 6 months? If you have been here for less than 6 months, when did you start?

Q3 List all activities your tenants currently undertake during the day and night and indicate whether it is supervised or independent. e.g. drop in centres, shopping, cooking, day trips, etc.

Q4 List all forms of active rehabilitation programmes your tenants currently receive and how frequently clients use them. For example, occupational rehabilitation, remedial education, behaviour modification programmes, etc.

Q5 In specific, how frequently do your tenants use the following services?

- 1 Individualised Home Programmes such as, training in daily living skills and instruction in using community resources
- 2 Psychiatrist
- 3 Psychiatric Nurse
- 4 Sheltered Transport
- 5 Sheltered Work
- 6 Sheltered Recreation
- 7 Key Caseworker
- 8 Voluntary Support
- 9 Psychologist

Q6 Is the client residing in a sheltered residence? How many people reside here and what type of facility is it (e.g. retirement home, boarding house, parents, flatting, sheltered housing trust etc)

Q7 What type of medication is your tenant on and has your tenant had any changes in their medication over the past 6 months? (i.e. reductions/increases)

Q8 Are the tenants on a compulsory community treatment order or voluntary?

Q9 What level of care is the tenant classified as?

Q10 If any clients have moved what was the reason for each move and where did they move to each time?

Q11 How frequently do your tenants receive visits from, or visit, friends and family?

Q12 In general are you able to provide the type of services you want to for the tenants? If not, why?

APPENDIX F: Massey University Human Ethics Committee approval**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5608

**FACULTY OF
BUSINESS STUDIES**



**DEPARTMENT OF
HUMAN
RESOURCE
MANAGEMENT**

10 November 1994

Robyn Huzziff
Department of Psychology
MASSEY UNIVERSITY

Dear Robyn

Thank you for your letter of 7 November informing me that you have made the alterations required by the Human Ethics Committee.

Having made the alterations the ethics of your project can now be approved. However it is important that you send to me copies of the amendments you have made so that these amended documents can be placed in our files.

Yours sincerely

A handwritten signature in black ink, appearing to read "Philip Dewe".

Professor Philip Dewe
Chairperson
Human Ethics Committee

APPENDIX G: Information sheet and consent form



'Striving for good health through people who care'
 State Highway 3, North of Bulls; Private Bag, Marton, New Zealand.
 Telephone 0-6-327 8044, Facsimile 0-6-327 7692



Private Bag 11222
 Palmerston North
 New Zealand
 Telephone 0-6-356 909
 Facsimile 0-6-350 5602

INFORMATION FORM

Follow-up Adjustment in the Community

You are welcome to have someone help you read and understand this form. You might like to be assisted by a staff member, family, friends or anyone else who you think could help you. Please let us know so we can help you arrange additional assistance if you wish.

Who are the researchers? The researcher for this study is Graeme Beaumont who is a staff member at Lake Alice Hospital.

Where can they be contacted? Graeme Beaumont can be contacted at Lake Alice Hospital, Private Bag, Marton; telephone number (06) 3278044.

What is the study about? The aim of the study is to assess changes in your quality of life and day to day behaviour after moving from Lake Alice Hospital into community living.

What will I have to do? If you agree to participate we will ask you to complete a questionnaire which measures how you are feeling. We will ask you to complete this questionnaire a total of 4 times at intervals of once every 6 months. Staff who supervise or help care for you in your placement will be asked to complete a rating of your behaviour at the same time. We will also need to look at your medical record to find out about any changes in your living arrangement and treatment activities.

How much time will be involved? The questionnaire should take about 15 minutes to complete each time.

What can I expect from the researchers? You can expect to receive full information about the study and can ask questions at any point. We will provide you with a summary of the results at the end of the study.

What are my rights? If you take part in the study, you have the right to:

- * withdraw from the study at any time
- * if you choose to withdraw from the study this will not effect your future health care in any way
- * ask any further questions you may have about the research
- * provide information on the understanding that it is completely confidential to the researchers
- * receive a summary of the results when the study is finished

Now you have read the information sheet, please decide whether or not you wish to take part in this study. If you are interested in participating, please sign the attached consent form.



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CONSENT FORM

Follow-up Adjustment in the Community

I have read the Information Form for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that I am free to withdraw from the study at any time, or decline to answer any particular questions in the study. I agree to provide information to the research on the understanding that it is completely confidential.

PARTICIPANT SIGN HERE:

DATE:

I have discussed the purpose of the study with the participant and answered his/her questions about the study.

RESEARCHER SIGN HERE:

DATE:

WITNESS SIGN HERE:

DATE:

APPENDIX H: Comparison between respondents and non-respondents for demographic variables

Demographic Variable	Respondents		Non-respondents		<i>df</i>	<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
12 months	(n = 19)		(n = 10)			
Age	46.05	14.83	55.70	15.94	27	1.62
Length of prior hospitalisation	9.70	11.71	16.09	14.23	27	1.30
18 months	(n = 19)		(n = 9)			
Age	45.47	14.13	55.89	17.14	26	1.70
Length of prior hospitalisation	9.05	10.90	19.09	14.56	26	2.04
24 months	(n = 15)		(n = 11)			
Age	42.93	10.67	54.73	18.63	14.77	1.88
Length of prior hospitalisation	7.95	8.93	17.89	15.56	14.79	1.90

Chi-squares for gender and diagnosis between respondent and non-respondent groups at each community follow-up phase

Follow-up	Gender	Diagnosis
12 months (n = 29)	$\chi^2 (1) = .29, p > .05$	$\chi^2 (1) = .56, p > .05$
18 months (n = 28)	$\chi^2 (1) = 1.36, p > .05$	$\chi^2 (1) = .41, p > .05$
24 months (n = 26)	$\chi^2 (1) = .26, p > .05$	$\chi^2 (1) = .11, p > .05$