Evaluation of Early Intervention for Psychosis Services in New Zealand: what works?

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Feedback has been sought from a variety of individuals however, the final document has not been seen by all parties that contributed to discussions. While every attempt has been made to incorporate all viewpoints, it is anticipated that this document will generate further necessary discussion in the area.

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Part 1 Introduction

In recent years there has been a growing interest in the concept of Early Intervention for Psychosis. The hope is that early treatment of psychosis will not only maximise the chances of a full recovery, but also minimise the possibility of relapses and comorbidity (Loebel et al., 1992; Falloon, 1992; McGorry, Edwards, Mihalopoulos, Harrigan, & Jackson, 1996; Birchwood & Macmillan, 1993). New Zealand has embraced the concept of Early Intervention for Psychosis and a number of services have been developed, primarily based on the models of Integrated Mental Health Care (IMHC) (Falloon & Fadden, 1993) and a ground-breaking treatment programme in Melbourne (McGorry et al., 1996).

While services are based on these overseas models, each New Zealand service that has developed has done so in response to the particular needs of its local community. A variety of types of Early Intervention services have emerged and each service has developed its own treatment protocols.

It is therefore timely to look more closely at what is offered in New Zealand in this area, in order to answer the question: what works in Early Intervention for Psychosis services? The aim is to summarise what services are being delivered, what evaluations are taking place, and how the results might be usefully used for the future to shape clinical practice. Accordingly, the Mental Health Research and Development Strategy (MHR&DS) (http://www.hrc.govt.nz/MHR&D.htm) has commissioned this report.

The overall objective of the MHR&DS is:

To use research and development to identify ways that will improve the planning, purchasing and delivery of mental health services in New Zealand, and which are consistent with the Treaty of Waitangi and the needs of consumers, family, whanau and other stakeholders.

Specifically it aims to:

- Create a research and development culture within the mental health sector
- Facilitate networking between researchers, providers and purchasers
- Better utilise current research and development capacity
- Build research and development capacity
- Encourage evidence-based practice
- Collaborate with other initiatives in the mental health area.

In accordance with the goals of the MHR&DS, the aim of this report is to:

1. Describe current Early Intervention for Psychosis Services available in New Zealand
2. Summarise any service evaluations that have been undertaken
3. Summarise key effective service elements that can be drawn from results of evaluations and a review of the literature and;
4. Draft a template for evaluation that may be practically used by Early Intervention for Psychosis Services in New Zealand.

The purpose of this report is to describe early intervention services in New Zealand, describe the key elements of Early Intervention in New Zealand, and provide a means of evaluating these services so that clinical practice can be guided by evidence rather than faith.

This report will start with a general introduction to the concept of Early Intervention for Psychosis. **Part 1** consists of a brief description of 'psychosis' and its incidence. Definitions of the key aspects of 'Early Intervention for Psychosis' will also be provided. This will be followed by the rationale for Early Intervention, including a description of some of the early studies that pointed towards a need for early intervention and the potential impact of not treating psychosis early.

Part 2 will provide a detailed account of each Early Intervention for psychosis service currently available in New Zealand and a summary of these services. It will also explore some of the issues faced by single Early Intervention workers, either working on their own or within community mental health teams.

Part 3 provides a detailed outline of all evaluation projects currently undertaken by Early Intervention for Psychosis Services in New Zealand. An attempt has also been made to describe research projects that have been conducted in various units, and proposed research initiatives. This section does not include a discussion of the Mental Health Classification and Outcomes Study (Gaines, Bower, & Buckingham, 2001), which some Early Intervention workers will be involved in.

Part 4 examines the best possible evidence about what works for early intervention in psychosis. Every attempt has been made to include local research and clinical opinion as well as an examination of the available international literature on the key elements of Early Intervention for first episode psychosis. The key elements are summarised and examined within the New Zealand context.

Part 5 outlines a suggested process for evaluation that may be practically used by Early Intervention for Psychosis Services in New Zealand. The evaluation consists of measuring the performance of the service in treating first episode psychosis and also assessing the outcome for the individual.

Background

Psychosis is a syndrome that may be a feature of a number of disorders. It refers to a primary disturbance of thinking which is reflected in certain symptoms, particularly disturbances in perception (hallucinations), disturbances in belief and interpretation of the environment (delusions) and disorganised speech patterns (thought disorder) (MHC, 1999a). There are multiple causes of psychosis, which include substance abuse, exposure to severe stress, inherited and acquired medical conditions or diseases, and mood disorders.

While schizophrenia is just one cause of symptoms of psychosis, it is the condition in which the most research has been conducted. Accordingly, much of the material referred to in this report will describe 'schizophrenia'. The terms 'first episode schizophrenia' and 'first episode psychosis' are at times used interchangeably (Remington, Kapur, & Zipursky, 1998). Diagnostic specificity can be difficult, particularly in the early stage of illness (Fennig et al., 1994). Psychotic disorders and mood disorders are sometimes indistinguishable early in their course and around 30-40% of diagnoses are changed within three months (McGorry, 1994). Therefore, there is a preference to use the term 'early psychosis' rather than schizophrenia.

However, the majority of literature reviewed in this report talks about ‘schizophrenia’. This is due in part to the paucity of clinical trials in the area of first episode psychosis.

World-wide it is estimated that approximately one percent of individuals will develop Schizophrenia (Jablensky, 1992). In a WHO study across 13 different catchment areas, the annual incidence of schizophrenia was estimated at between 16-42 new cases per 100,000 per year (Jablensky, 1992). Yung, Phillips, & Drew (1999) report a referral rate for first episode psychosis of 29 per 100,000 for March 1995 – March 1996 in the western metropolitan region of Melbourne.

The cost of schizophrenia is high, long lasting and usually underestimated. The impact of schizophrenia on health care budgets is substantial, typically between 1.5% and 3% of total national health care expenditures in developed countries (Knapp, 1997). Sizeable proportions of total inpatient budgets are accounted for by people with schizophrenia. Generally between one and two thirds of the total healthcare cost of schizophrenia is for hospitalisation, even in countries that have already reduced their inpatient services (Salize & Roessler, 1996). In an Australian survey of people living with a psychotic illness, half the study population had at least one hospital admission in the previous year (Jablensky et al., 1999). Indirect costs of schizophrenia are estimated to be up to seven times higher than direct costs (Andrews et al., 1985; Rupp & Keith, 1993). Delay in treatment can also lead to increased economic costs of illness (Moscarelli, Capri, & Neri, 1991). Even more importantly, the quality of life for many people with psychotic disorders is extremely poor (Jablensky et al., 1999).

Schizophrenia typically emerges in adolescent or early adulthood, with males’ age of onset peaking in the early 20’s, and females several years later (McGlashan, 1988). In an Australian survey of people living with a psychotic illness the average age of onset was 23.8 in males and 24.8 in females (Jablensky et al., 1999). Varma and colleagues (1997) suggest that of individuals diagnosed with Schizophrenia, about 50 percent have onset between the ages of 15-24.

In recent years there has been a growing interest in the concept of early intervention for psychosis (e.g. McGorry & Jackson, 1999; Birchwood & Macmillan, 1993; Malla, Norman, & Voruganti, 1999). In a 20 year follow-up of first psychiatric presentation for schizophrenia Helgason (1990) found poor levels of quality of life in the majority of respondents. Helgason (1990) suggested that these findings pointed to a serious need for changes in basic treatment structure if this situation is to be altered.

Perhaps the most influential paper was that of Wyatt (1991), who reviewed 22 studies in which patients with Schizophrenia were or were not given neuroleptics at specific times during their course of illness. He concluded that an intervention with neuroleptics in first break Schizophrenia patients increased the likelihood of improved long term course. At the same time evidence was emerging of a so-called ‘critical period’ for vulnerability to relapse and development of secondary handicaps during the first three years following the onset of a first psychotic illness (Birchwood & Macmillan, 1993).

Birchwood (1998), has suggested that when disabilities develop following a first episode of psychosis they usually do so during the first three years. Unemployment, impoverished social networks, and loss of self esteem can develop aggressively during the critical period. The longer these needs are not dealt with the more entrenched they become. Birchwood and colleagues therefore proposed that timely and effective intervention at this stage might alter the subsequent cause of the illness. The concept of a critical period in the development and progression of psychosis is a strong argument in favour of early intervention and supports the need to reduce the duration of untreated psychosis. In a 15 year follow up study on the natural course of Schizophrenic Disorders, Wiersma, Nienhuis, Slooff, & Giel (1998) found that relapse in the early phase of psychosis is associated with an increased probability of further relapse and persisting symptoms. They further found that where a pattern of relapse develops it begins during the critical period.

Eighty percent of people with first episode psychosis relapse at least once within five years (Shepherd, Watt, Falloon, & Smeeton, 1989; D. Robinson et al., 1999). There is a decline in social contacts with the peer group; which has been associated with relapse (Rajkumar & Thara, 1989) especially with young men (Linszen & Birchwood, 2000). In this period the severity of schizophrenia will be established that is, in the early phase five years after the first psychotic episode (McGlashan, 1988). In this transition phase the adjustment of the family to the first psychotic episode also takes place (Birchwood, 1999). Disruption to normal development can result in falling out of step with peers, having an altered self perception, and becoming socially isolated and demoralised. In addition, moving off the normal developmental trajectory is likely to reduce the potential for achievements in the future (EPPIC, 2001).

Recognition and intervention at the earliest possible stage of florid psychosis could contribute to earlier psychotic and negative symptom remission, delay in psychotic relapse and prevention of psychosocial deterioration, (Wyatt; 1991; Birchwood & Macmillan, 1993; McGlashan, 1996a). The early phase of psychosis and schizophrenia can therefore be seen as a critical period with major implications for the prevention of disease and psychosocial deterioration, (Birchwood, 1998).

The longer the period of psychosis prior to treatment with medication in first episode patients, the poorer the short term outcome (Loebel et al., 1992) and the greater the risk of long term morbidity (Wyatt, 1991; Harrison, Croudace, Mason, Glazebrook, et al., 1996). In addition, it has been demonstrated in follow up studies of patients with non-affective psychosis that after each acute episode the proportion of patients with residual psychotic symptoms increases (Shepherd et al., 1989; Wiersma et al., 1998), suggesting that the acute phase is the source of these residual symptoms. In longer durations of untreated psychosis there is a greater possibility of the involvement of the Police or compulsory admittance to an inpatient unit. These events are likely to be highly traumatising for the individual, possibly leading to persisting symptoms of post traumatic stress disorder (McGorry, 1991), and alienation from services.

Numerous retrospective and several prospective studies have found that the longer people remain psychotic before treatment is initiated the more likely they are to suffer more relapses (for example, Johnstone, Crow, Johnson, & MacMillan (1986) found three times the relapse rate in those with a duration of untreated psychosis of more than one year). They also benefit less from receiving maintenance antipsychotic medication, (Crow, MacMillan, Johnson, & Johnstone, 1986) and benefit less from intense treatment (Loebel et al., 1992). Long delays between onset of psychosis and treatment are associated with greater cognitive impairment, more severe negative symptomotology and poorer personal and social outcomes (Scully, Coakley, Kinsella, & Waddington, 1997). While most research has focused on the duration of untreated psychosis in Schizophrenia, it has been suggested that the early identification and intervention in Bipolar Disorder may also significantly improve outcome. Robb (1999) has suggested that early recognition can lead to early treatment and reduce both short- and long-term morbidity and mortality in children with bipolar disorder.

There is therefore a growing awareness of the need to provide optimum treatment at the earliest possible stage after the onset of psychosis. McGorry & Edwards (1998) describe the development of the Early Psychosis Prevention and Intervention Centre (EPPIC), in Melbourne, which is designed to identify adolescents and young adults in the early stages of first episode psychosis and provide them with a comprehensive, sustained community-based service intended to minimise primary and secondary morbidity. Key elements of EPPIC are the mobile Early Psychosis Assessment Team, minimal inpatient treatment, continuity of care, a day program for recovering patients, specialist family work, and cognitively oriented psychotherapy for early psychosis.

Summary of potential impacts of untreated psychosis

EPPIC (2001) have summarised potential impacts of untreated psychosis from a biopsychosocial perspective:

Biological impacts of untreated psychosis

- Wyatt (1991) has proposed a theory that psychosis is toxic to the brain and can have permanent negative effects.
- There may be an exacerbated impact of psychosis and reduced rate and level of recovery.
- There are risks of worse physical health.
- Greater risks of substance abuse.

Psychological impacts of untreated psychosis

- Despair, demoralisation and loss of confidence in self.
- Depression, suicide.
- Disrupted personality development.
- Anxiety (for example social phobia or post traumatic stress disorder).

Social impacts of untreated psychosis

- Disruption to interpersonal relationships for example family or peers.
- Disruption to education or employment.
- Risks associated with homelessness, involvement with criminal justice system, and victimisation.

There are a number of other services internationally, that are researching core elements of Early Intervention services; for example, Ashok Malla in Ontario, Canada (Malla, 1998); Max Birchwood in Birmingham, England (Birchwood & Spencer, 2001); Ian Falloon in a number of international sites (Falloon & Collaborators, 1999), and the TIPS programme in Norway and Denmark (Larsen et al., 2000). Edwards, McGorry, & Pennell (2000) provide a review of international Early Intervention for Psychosis Services.

Definitional issues in Early Intervention for psychosis

What is psychosis?

While the underlying causes of psychosis remain unknown, an episode of psychosis is viewed as the result of interaction between:

- one or more environmental *stressors*; this may be a physical, (such as substance abuse or infection) or psychosocial (such as stressful life events or trauma); with

- *vulnerability;* vulnerabilities are factors that predispose someone to develop psychosis, but do not necessarily guarantee its development; examples of predisposing factors include: a genetic or biochemical predisposition, previous injury or previous negative experiences.

This explanatory model is known as the Stress Vulnerability Hypothesis (Zubin & Spring, 1977). The interaction of the level of vulnerability, level of stress and the extent of protective factors, such as the individual's coping skills and family environment will determine the onset and severity of the illness and provide biological, psychological and social 'triggers' for relapse. The conceptualisation of psychosis from a biopsychosocial perspective, which acknowledges the potential contributions from, and interactions of, biological, psychological and social factors in the development of psychosis has implications for optimal treatment that will be discussed through-out this document.

Phases of Early Psychosis

Three phases of early psychosis have been identified and these have been summarised by the Mental Health Commission (1999a).

1. *Prodrome*

   The majority of people who develop psychosis will have experienced non-specific changes in behaviour and mental state prior to the onset of the disorder. These non-specific changes may predate the onset of psychosis by a short period of a few days or may evolve over an extended period of years. This may be an early form of psychosis (at risk mental state). The prodrome, which can last for several years, can be considered the earliest manifestation of the psychotic disorder. Key features that may indicate the presence of psychosis or its prodromal stage include:

   - sleep disturbance;
   - appetite disturbance;
   - marked unusual behaviour;
   - feelings that are blunted or seem incongruous to others;
   - speech that is difficult to follow;
   - marked preoccupation with unusual ideas;
   - ideas of reference – things having special meanings;
   - persistent feelings of unreality;
   - changes in the way things appear, sound or smell.

2. *Acute phase*

   This is when the symptoms of hallucinations, delusions and/or thought disorder are fully developed, often along with other psychiatric symptoms (for example changes in behaviour, depression, anxiety)[1]. The acute phase is characterised by the presence of psychotic features such as delusions, hallucinations and thought disorder. Co-morbid conditions such as depression, obsessive compulsive disorder, post traumatic stress disorder, anxiety disorders, substance abuse or personality disorder might also be present. The goals of treatment during the acute phase include the resolution of the

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[1] In the literature the general recommendation has been to use positive symptoms in order to define onset (acute phase) of psychosis (McGlashan, 1996b), as these symptoms have been reported as being more reliable to assess than negative symptoms (Beiser, Erickson, Fleming, & Iacono, 1993).

acute symptoms of psychosis[2], prevention or the treatment of comorbid conditions and the laying of the groundwork for psychosocial recovery.

3. *Recovery phase*

This is the period following treatment of the acute phase when the symptoms are reduced or absent. Most people who have experienced a psychotic episode experience some level of difficulty making sense of the experience and returning to normal during this phase. During the recovery phase the focus of management is to assist people to understand their illness and to develop a range of skills that will enable them to achieve their goals for the future. During recovery the possibility of relapse should be recognised and plans made to deal with it.

The core elements of (Early) Intervention will vary, depending on the phase the individual is experiencing.

In order to investigate 'What Works' in early intervention for psychosis, we must first define what we mean by this term.

Types of Early Intervention

Three types of early intervention strategies are possible:

1. Early intervention in the prodromal phase (primary prevention).
2. Early intervention after the onset of psychosis (secondary prevention).
3. Early intervention to prevent relapse (tertiary prevention).

1. *Primary prevention*

True primary prevention involves such things as reducing obstetric complications , which are thought to play a role in the development of psychosis (Alvir, Woerner, Gunduz, Degreef, & Lieberman, 1999). These strategies are beyond the scope of the present discussion. Early intervention in the prodromal phase involves *indicated* primary prevention (Yung et al., 1998) and should lead to a decrease in the incidence of psychosis. Several groups are currently researching the feasibility of designing screening procedures to identify young people at risk of schizophrenia before the onset of illness (for example the Personal Assessment and Crisis Evaluation (PACE) service at EPPIC (Phillips, Yung, & McGorry, 2000)). Proceedings of the First Australian Schizophrenia Prevention Conference summarise the present research in this area (Catts, O'Toole, & Draganic, 2000).

A recent review of the literature (Larsen et al., 2001) concluded that for the time being no research projects have shown beyond reasonable doubt that primary prevention in psychosis is possible. In addition, ethical concerns arise in that even if a low-risk status could be established on screening, it would provide no guarantee that the disorder may not emerge subsequently. Conversely, high risk status for schizophrenia may be conferred on people who are still likely to never have the disorder emerge (Rosen, 2000). Larsen & Opjordsmoen (1996) have discussed the danger of falsely labelling people who will never develop schizophrenia (false positives) because of the unspecific nature of prodromal symptoms.

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[2] Lieberman and colleagues (1993) suggest that remission of the positive symptoms of psychosis will occur in 85-90% of cases by six months in the presence of adequate neuroleptic medication.

2. *Secondary prevention*

Early intervention after the onset of psychosis means that effective treatment is given as soon as possible after the development of a first episode of psychosis. While this may seem to be a straight-forward and logical proposition, the reality is often very different (Lincoln & McGorry, 1995). There are often multiple attempts to access care before effective treatment is commenced involving long delays.

3. *Tertiary prevention*

Tertiary prevention means that effective treatment is given for a long enough period of time after the onset of psychosis to facilitate the prevention of relapse (Birchwood & Spencer, 2001). Tertiary prevention is not an early intervention strategy and has more to do with the timing, duration, and content of adequate treatment (Larsen et al., 2001). While prevention of relapse is a core element of Early Intervention for Psychosis Services, the concept of Early Intervention in this document refers to intervening as soon as possible after the first episode of psychosis. It is the intention to restrict the focus of this report to early intervention after (or during) the onset of psychosis (secondary prevention).

In the context of the present review, early intervention for psychosis refers to approaches to the treatment of psychosis that emphasise the importance of both the timing and the type of intervention provided to people experiencing first episode psychosis. *Early* is as early as possible following the onset of (generally positive) psychotic symptoms, and the *intervention* is comprehensive, intensive, phase-specific and individualised treatment for these individuals (Malla et al., 1999).

Early intervention in psychosis:

> *"amounts to deciding if a psychotic disorder has commenced and then offering effective treatment at the earliest possible point and secondly ensuring that intervention constitutes best practice for this phase of illness, and is not just the translation of standard treatments developed for later stages and more persistently ill subgroups of the disorder"* (McGorry et al., 1996; page 305).

Early Intervention for Psychosis: Generic good practice early, or a new paradigm?

Recently, Malla & Norman (2001) discussed whether there is 'more to early intervention than intervening early'. They contend that 'clinical experience and evidence suggest that clients' needs during the early phases of their illness differ from those individuals with longer standing illness. The former are generally young, living with their families, attempting to negotiate the normal developmental phases of late adolescence and young adulthood, and using alcohol and drugs socially or excessively. Also, they are often still dealing with the initial trauma of psychosis with strong hopes of returning to a normal level of functioning and are more likely to reject a paternalistic approach to medical interventions (Malla & Norman, 2001).

The families of such clients are likely to be younger with needs and expectations related to the presence of other children of varying ages, high expectations of treatment benefits and possibly a higher level of knowledge about psychotic illnesses and the treatment gained through new information systems such as the 'Internet'. Malla and Norman suggest that if we do not consider these issues when working with clients and their families, we may not fully realise the potential benefits of early intervention. McGorry (1992) has also discussed the variety of special clinical needs required by this population.

One of the benefits of the early intervention approach is that a restructuring of services around the onset phase and early course of psychotic disorders will prove to be more cost effective. Preliminary evidence of the cost-effectiveness of EPPIC has been provided (Mihalopoulos, McGorry, & Carter, 1999). The savings were due to the marked reduction in in-patient costs outweighing substantial increases in the costs of community care. This is likely to require an increase in what is currently being spent on people with first episode psychosis and to result in savings in later phases. According to Cuffel and colleagues (1996), young people in the early phases of schizophrenia already consume greater amounts of resources than those in later phases. Moscarelli and colleagues (1991) found that if duration of untreated psychosis was less than six months, total costs for the next three years were US$5,606, however, if duration of untreated psychosis was greater than six months the average cost raises to US$12,283. 'There will be a lag between initiating early services and reaping the financial benefits, so a certain amount of vision in service planning and long-term budget cycles may be required' (Edwards & McGorry, 2002).

One of the key challenges facing Early Intervention Services is that of changing attitudes among service providers about the importance of early intervention. While this process involves increasing professional awareness of available services, it will also be necessary to provide evidence that early intervention is a worthwhile enterprise. That is, that investing in early intervention services provides value for money. Early intervention programmes are difficult to organise and expensive to carry out[3]. Even if there are several good arguments for early intervention in first episode psychosis, it is still very important to carry out studies with experimental design that can confirm, or invalidate, the hypothesis that early intervention improves the course and outcome for people presenting with a first episode of psychosis.

From a review of the literature (Larsen et al., 2001), it would appear that early intervention for psychosis is successful in reducing the initial morbidity and distress associated with the first psychotic episode. However, it remains an open question as to whether early intervention leads to better *long-term* outcome for first episode patients. McGorry (2000) suggests that for the majority, though not all, a reasonably intensive period of treatment to promote recovery and reintegration during the first or second year after onset of treatment is optimal. Beyond this, for a substantial minority at least, ongoing maintenance treatment is required.

Linszen and colleagues (1996) found that an early intensive psychosocial and drug treatment programme had a favourable effect on the relapse rate of schizophrenia and related disorders. The 15 month intervention programme kept the psychotic relapse rate as low as 16%. After completion of the 15-month study clients were referred to other agencies and followed for five years. Of the remaining 71 patients of the initial sample of 76, 52% had one or more psychotic relapses, 25% developed chronic positive symptoms, while only a quarter had no psychotic relapse during the follow up period. D. Robinson and colleagues (1999) found the risk of subsequent relapse to be as high as 81.9% at five year follow-up of their first episode clients.

In a review of their follow up Linszen, Dingemans, & Lenior (2001) suggest that early intervention for psychosis had a significant effect during the time that clients remained in treatment. However, when clients were discharged to community services this improvement did not last. They further suggest that early recognition and intervention may not be nearly as important for outcome as *continuity of care*. It may be that the only way to prevent poor outcome in first episode psychosis is sustained case management for a minimum period of five years.

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[3] A guide to establishing early psychosis services has recently been produced (Edwards & McGorry, 2002).

That period approaches the critical period in which the severity of schizophrenia is established (Birchwood & Macmillan, 1993). Linszen and colleagues (2001) conclude that at present it remains questionable whether early intervention programmes in first episode psychosis can offer the promise of altering the course of schizophrenia without a sustained comprehensive treatment programme. However as Larsen and colleagues (2001) point out in their review of the literature, short-term effects might be clinically significant even without improvement in long term outcome. For example, early intervention seems to improve engagement and adherence to negotiated treatment (EPPIC, 2001; Kane, Rifkin, Quitkin, Nayak, & Ramos-Lorenzi, 1982).

Bebbington (2000) suggests that there are three main reasons why we might wish to intervene as early as possible in the course of a psychotic illness:

1. The first is that it is humane to do so. The requirement to curtail suffering does not require any special pleading. Our treatments are imperfect but are more effective if administered earlier. If we could treat schizophrenia perfectly the only grounds for early intervention would be common humanity. In terms of the outcome it would not matter when treatment was given. The old Kraepelinian model of dementia Praecox suggested a course characterised by gradual and enduring deterioration. However, current experience is not consistent with this view (Davidson & McGlashan, 1997).
2. Early treatment may improve outcome both for the episode and for the long-term course.
3. Effective early intervention may improve the attitudes of clients towards treatments.

Summary

In summary, the goal of early intervention for psychosis is to improve outcomes by promoting as full a recovery as possible. To achieve this, early invention strategies are designed to limit the duration of the psychosis, prior to and during treatment, and prevent relapse. Early Intervention for psychosis reduces the suffering associated with first episode psychosis. There is some evidence that Early Intervention for Psychosis Services increase quality of life for those with first episode psychosis (A. K. Malla, 2001), and that these services are cost effective (Mihalopoulos et al., 1999). Overall, Early Intervention for Psychosis Services have a significant positive effect for clients while in treatment (Larsen et al., 2001; Linszen et al., 2001).

Early Intervention in New Zealand

In New Zealand, interest in Early Intervention has been guided by the work of EPPIC a pioneering Early Intervention for Psychosis Service set up by Pat McGorry in Melbourne (McGorry et al., 1996). A key document outlining the style of service provision for New Zealand services is the Early Intervention in Psychosis: guidance note (MHC, 1999a), which arose from the New Zealand Early Intervention Interest Group Consensus Statement (Codyre & Noseworthy, 1997).

On the topic of Early Intervention Services, The New Zealand Blueprint for Mental Health Services (MHC, 1998) states:

> *"All services working with people who have developing mental illnesses need to practice early intervention strategies aimed not only at preventing or limiting relapses but also at reducing or preventing the development of high support needs or disability. In some circumstances these services may be offered separately from community teams. Whilst some of these services have a time limit on their use (for example 12 months), ideally they should be available to people for as long as they require an intensive level of input in order to prevent illness episodes, maintain a full life in the community and prevent*

> *disability. These services should have one clinical staff person for every 10 to 15 service users"* (page 33).

Early Intervention is consistent with the recovery philosophy (MHC, 1998). Recovery is happening when people can live well in the presence or absence of their mental illness and the many losses that may come in its wake. Psychiatric services often emphasise maintenance rather than recovery (Turner-Crowson & Wallcraft, 2002), and the focus on recovery reflects the shift in thinking throughout the mental health sector.

There has been a remarkable growth of specialist services that work with people with first episode psychosis. In 2000 there were 18 statutory mental health services that work wholly or partly as early intervention services for young people, 12 of which were established in or after 1998 (SFNZ, 2001) through funding following the Mason Report (Mason, 1996). For the formative years, clinical practice in New Zealand has been guided by the work of pioneers such as EPPIC in Melbourne (McGorry et al., 1996; McGorry & Edwards, 1998) and the work of Ian Falloon and colleagues (Falloon & Fadden, 1993; Falloon et al., 1998). However, New Zealand has its own unique needs and issues in Mental Health services (Wilson, 2000).

It is therefore time that New Zealand services 'stood on their own feet' rather than solely relying on the work of overseas authorities. While these experts will continue to provide valuable lessons and insights into the treatment of first episode psychosis, New Zealand must develop their own services based on the needs of our particular circumstances and grounded in the outcome evaluations of existing services. It is time to find out what is happening in Early Intervention in New Zealand and 'What Works' for New Zealanders seeking help for first episode psychosis.

In order to investigate these issues, this report will:

1. Examine current Early Intervention for Psychosis Services available in New Zealand;
2. Summarise any service evaluations that have been undertaken;
3. Summarise key effective service elements that can be drawn from results of evaluations and a review of the literature; and
4. Draft a template for evaluation that may be *practically* used by Early Intervention for Psychosis Services in New Zealand.

Part 2 Description of Early Intervention for Psychosis Services in New Zealand

Introduction

The aims of this section are to provide an account of Early Intervention for Psychosis Services currently available in New Zealand. Specifically, this section will address the following:

1. The methods that were used to identify Early Intervention for Psychosis Services.
2. The development of the specific questions asked of each Early Intervention Service.
3. The process by which units were interviewed.
4. A description of Early Intervention for Psychosis Services in New Zealand.
5. A summary of services and service models in New Zealand.

Methods used to identify Early Intervention for Psychosis Services

1. All District Health Boards (DHB's) in New Zealand were contacted and Mental Health Service managers were asked to provide contact details for any Early Intervention for Psychosis Services in their region. In addition, use was made of the SFNZ Early Intervention for first Episode Psychosis: 2000 Directory of New Zealand Services (SFNZ, 2001). A question in the final questionnaire asked all services to identify any other Early Intervention for Psychosis Services within their DHB.
2. A series of meetings were held with Early Intervention for Psychosis Services in order to discuss the core elements of Early Intervention. These discussions were used to develop the questionnaire that was completed by all services. All services listed in the SFNZ Early Intervention for first Episode Psychosis: 2000 Directory of New Zealand Services were sent a copy of the New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) and asked to comment on any issues they might have arising from this document, as it was developed three years ago. In addition, key questions were outlined in the initial MHR&DS tender. The final questionnaire was developed from feedback obtained and piloted.
3. All identified Early Intervention for Psychosis Services in New Zealand were contacted by phone and asked a series of structured questions including:

    - Size of service, location and staffing
    - Model of service (i.e. key elements of service delivered)
    - Client group served (age, demographics, diagnosis)
    - Assessment processes (including cultural assessments)
    - Clinical and cultural interventions
    - Other cultural processes used for Maori or Pacific Island clients
    - Liaison/interface with other mental health services and community agencies (e.g. General Practitioners, schools, and/or school counsellors)
    - Service user and family input (e.g. in planning or evaluation).

Most services preferred to have the questionnaire sent to them in order to complete it. The completed questionnaires were examined by staff at Totara House[4] and any issues arising from the completed questionnaire were clarified with the respondents. A description of each Early Intervention for Psychosis Service in New Zealand was then collated and written up. The description of Early Intervention for Psychosis Services in New Zealand is included as Appendix I.

Unfortunately several teams were unable to provide us with details of their services, despite numerous attempts to obtain this information. All identified services were contacted a number of times to try to obtain information. Some Mental Health Service Managers stated that there were no Early Intervention for Psychosis Services in DHB's that we received replies from. Other managers stated there were no services in DHB's that are listed in the SFNZ Directory of Services. The following list is by no means comprehensive. Every effort was made to gain information from all services, but this was not possible.

Table 1 provides a summary of information received during this process describing current Early Intervention for Psychosis Services available in New Zealand by DHB.

Several services were not able to be contacted/provide feedback in time. These include:

- Te Whare Puawai o Te Tangata
- Nga Kupenga Aroha Early Intervention Service
- Te Puna Hauora Early Intervention Service
- Tuhoe Hau Ora Trust Early Intervention Service.

Summary of Early Intervention for Psychosis Services available in New Zealand

The aims of this section are to provide a summary of Early Intervention for Psychosis Services in New Zealand.

From the descriptions provided in Appendix I, it can be seen that there are a number of adequately resourced, multi-disciplinary Early Intervention for Psychosis Services. Notably services in Dunedin, Christchurch, Wellington and Auckland. However, there are a large number of Early Intervention workers in regional centres and these reflect the lower demand for early intervention services due to the low incidence of first episode psychosis in the local population. A large number of smaller services are not able to provide all the specialist treatment they would like to. For example "Where the 'service' falls down is the lack of availability of community activities that can help increase their level of functioning and prevent social isolation".

Several DHB Mental Health Service Managers claimed that they had Early Intervention for Psychosis Services, while the 'Early Intervention workers' said that was what they would like to do but could not and were not due to resourcing issues. Other DHB Mental Health Service Managers claimed that there were no Early Intervention for Psychosis Services in their region, while workers claimed that they were. There is a need to clarify what is meant by 'providing Early Intervention for Psychosis Services'.

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[4] Mark Turner (researcher) and Paul Kelly (senior nurse and case manager).

Table 1. List of Early Intervention for Psychosis Services that responded to enquiries.

Summary of Early Intervention for Psychosis Services in New Zealand
Northland District Health Board No services
Waitemata District Health Board EPI Centre
Auckland District Health Board St Lukes, Taylor Centre, Kari Centre, Manaaki House, Cornwall House
Counties Manukau District Health Board Campbell Lodge, Hartford House
Waikato District Health Board
Bay of Plenty District Health Board Voyagers CA&F Service, Tauranga Hospital CAMHS
Lakes District Health Board No services – two Early Intervention Key Workers
Tairawhiti District Health Board No speciality Early Intervention Service
Taranaki District Health Board Megan Jackson
Hawkes Bay District Health Board No services*
Wanganui District Health Board *
Midcentral District Health Board Child, Adolescent & Family Mental Health*
Capital and Coast District Health Board Wellington EIS
Hutt Valley District Health Board Wellington EIS
Wairarapa District Health Board No Services*
Nelson Marlborough District Health Board No Services
West Coast District Health Board Buller Community Mental Health
Canterbury District Health Board Totara House
South Canterbury District Health Board C & Y MH
Otago District Health Board Aspiring House
Southland District Health Board No Services

* Memorandums of understanding with Wellington Early Intervention Service.

Single Early Intervention workers act as service brokers for their clients, with some workers staying with the client for two years (if required) and others overseeing the acute phase of first episode psychosis before referring the client on to a community mental health team. No attempt was made in the present document to distinguish Early Intervention for Psychosis 'Services' from Early Intervention 'workers'. A future issue that should be addressed is the minimum requirements of Early Intervention to be effective. This may involve developing guidelines that address what the base requirements are for an early intervention approach to be considered a 'service', a 'team' or a 'worker'. A similar exercise has been conducted in the field of pain management, with strict criteria developed for 'multidisciplinary pain management centres', 'pain clinics' and pain management 'workers' etc. (http://www.iasp-pain.org/desirabl.html).

Several workers commented that they struggle, as a single Early Intervention worker, with other staff who are not working from an Early Intervention perspective, particularly psychiatrists, who would rather 'depot' the client or admit them. While there may be justification for this, given the level of symptomatology, early intervention workers are aware that the person could be maintained in the community effectively, given the appropriate support. "The psychiatrists don't seem to be willing to put the time in for the individual with first episode psychosis and can't understand why there is a need to give extra support. Once the person is hospitalised, the rapport that was built up with the Early Intervention worker breaks down, and a lot of work is required to re-establish the therapeutic alliance" (anonymous).

The advantages and disadvantages of providing specialist Early Intervention for Psychosis Services from within generic community mental health teams are described by the IRIS project 'Clinical guidelines and service frameworks' (http://www.iris-initiative.org.uk/), and are summarised as follows:

Since staff in all areas of the mental health service are responsible for the care of first episode psychosis clients:

- Liaison with after-hours services should be enhanced
- Clients might experience a smoother transition to mainstream services than from a specialised service
- Decreased possibility of specialist services being overwhelmed and unable to accept new clients
- Dissemination of Early Intervention concept more widespread.

However, there are a number of drawbacks to this model:

- Staff expertise in Early Intervention area may be less well developed
- The service will be difficult to promote among mainstream services, reducing the frequency of identified cases
- A physical space dedicated to youth-friendly activities may be difficult to achieve
- Adherence to protocols may be difficult to monitor
- May be difficult to track which clients are to receive specialised interventions
- Early Intervention may be 'lost' in general service provision; Early Intervention initiatives are often considered additional to core business
- Difficult for Early Intervention services to survive when resources are tight.

See also Edwards and McGorry (2002) for a discussion.

Regional support groups are another innovative way for single Early Intervention workers to gain support. The Early Intervention Regional Focus Group is a good example of this. The group involves Early Intervention workers from Tauranga, Whakatane, Rotorua and New Plymouth meeting regularly to share information. Supervision is also provided. Groups such as this are an excellent way to develop Early Intervention principles in areas where resources/population base does not allow for an Early Intervention for Psychosis 'Service'.

Local specialist teams are appropriate where the demand for services is relatively high and there are very specific skills required, as in the treatment for first episode psychosis. However, the Blueprint for Mental Health Services (MHC, 1998; page 35) suggests that 'regional specialist services may be appropriate where the demand for service in local areas is very small and very specific and relatively rare required skills are needed. When they are located only in regional centres these services must provide outreach to other areas'. One service that has met the requirements of the Blueprint is the Wellington Early Intervention for Psychosis Service and a brief description of their outreach programme is described.

Information on Memorandums of Understanding between Central Region DHB's and Wellington Early Intervention Service

Provided by Lois Boyd (Training Coordinator)

Background information

Wellington Early Intervention Service has memoranda of understanding (MOU) to provide varying degrees of Early Intervention services to six DHB's in the Central Region. The DHB's are Capital and Coast District Health Board (CCDHB), Hutt Valley Health Board, Mid Central Health, Tairawhiti Health, Good Health Wanganui and Healthcare Hawkes Bay.

Each MOU is slightly different, to reflect the unique needs of each region. Each DHB has a designated Early Intervention liaison person who links to the Training Co-ordinator in Wellington. Liaison people are the main contact for any staff member within their DHB who may want to access assistance from the Wellington Team. Each liaison person holds a folder supplied by the Early Intervention Service (EIS) that contains referral forms, pamphlets and training information. This folder is updated as required.

The components of service provided, in differing amounts, based on the contract specifications and actual demand are as follows:

Assessment

Joint assessments are arranged with local teams as required. CCDHB and HVH assessments for EIS services carried out by EIS clinicians. Advice on assessment to outlying DHB's available as requested.

Treatment

Advice and assistance with treatment planning as required with clinical staff. Direct provision of treatment to CCDHB and HVH clients.

Training

Training sessions are provided regularly in the CCDHB and 2-3 monthly to outlying DHB's. Initially presentations on the early intervention service and principles were developed and presented. From this point training has been demand-driven in both topic and frequency.

Training packages developed include:

- Early Intervention and Family Work
- Relapse Prevention/Early Warning Signs training
- Early Intervention Case Study presentations
- Principles of Early Intervention
- Stress Vulnerability Model.

Further packages are currently being considered for development. All of these packages were developed after feedback from the DHB's regarding their training interests.

Consultation

Case consultation between DHB and EIS clinicians. This may take the form of a face to face case presentation/supervision-type meeting or is also available by telephone or video conferencing.

Liaison

By telephone as required for advice, supervision, arranging training etc.

Site Visits

To the early intervention service are regularly offered to DHB's outside of the greater Wellington area.

Strengths

Training sessions are the most utilised and positively commented on part of the MOU.

Weaknesses

Training is sometimes cancelled at DHB's outside the Wellington region due to staff shortages. Consultation services are often a frustrating experience for other DHB clinicians, who are in a position of providing EIS services within their existing community mental health teams, often with little or no extra resources. The practicalities of this are that EIS team may make recommendations that other DHB services are not equipped to provide in terms of workforce and/or resources. We are not able, due to time and distance involved, to provide any direct treatment to clients outside of the Wellington region.

Conclusion

This section has provided an account of Early Intervention for Psychosis Services in New Zealand. Large centres with the population base to support specialist services have developed comprehensive services based on the EPPIC model (McGorry et al., 1996) and the IMHC approach of Ian Falloon (Falloon & Fadden, 1993). However, most services have taken the best pieces from all available approaches and adapted them to their own local needs. Services appear to be well informed, familiar with the literature, and are adapting it well to their local conditions. There are many areas with enthusiastic Early Intervention staff frustrated at the lack of resourcing and support/understanding from those unfamiliar with the principles of Early Intervention.

Many services commented that they couldn't do all the Early Intervention work they would like, due to resource constraints. In order to obtain funding for optimal Early Intervention, services must show that they provide ‘value for money’. There appear to be no systematic reviews of outcomes undertaken. It is essential that, with limited resources for mental health, services prioritise which parts of Early Intervention are essential, those that are useful, and those that are optimal in the New Zealand context. This involves evaluating services.

Each service has different acceptance criteria, treatment regimes, and discharge criteria. A national definition of first episode psychosis needs to be developed for meaningful dialogue to occur. The New Zealand Early Intervention for Psychosis: guidance note (MHC, 1999a) does not provide this.

In DHB’s where the population base simply does not justify the establishment of a comprehensive early intervention for psychosis service, it is the recommendation of this report that education and liaison outreach programmes similar to that outlined by the Wellington Service be made available to these areas. This will require additional funding.

Part 3 Summary of Service Evaluations in Early Intervention for Psychosis Services in New Zealand

Introduction

The aims of the present section are to present a summary and analysis of the clinical outcome studies, and overall service evaluations undertaken by Early Intervention for Psychosis Services in New Zealand including:

- Methods and timeframes
- Measures used
- Cultural issues (i.e. how are Maori and Pacific People's needs met?)
- Results found: *what works?*
- Analysis of overall results
- Including limitations of research process and of findings
- Noting any limitations with regard to what works for Maori.

Specifically, this section will address the following:

1. The methods that were used to identify clinical outcome studies, and overall service evaluations undertaken by Early Intervention for Psychosis Services in New Zealand.
2. An account of the clinical outcome studies, and overall service evaluations undertaken by the identified services.
3. Suggestions for improvement of clinical outcome and service evaluation processes for Early Intervention for Psychosis Services in New Zealand.

Methods used to identify clinical outcome studies, and overall service evaluations undertaken by Early Intervention for Psychosis Services in New Zealand

1. All identified Early Intervention for Psychosis Services in New Zealand were contacted by phone and asked a series of structured questions including whether they had undertaken any clinical outcome studies, or overall service evaluations (refer Part 2 'Description of Early Intervention for Psychosis Services in New Zealand').
2. A thorough examination of the literature on Early Intervention for Psychosis was conducted looking for outcome studies published by New Zealand Early Intervention for Psychosis Services.

The routine, systematic evaluation of health outcomes is essential to evaluating the effectiveness of Early Intervention for Psychosis Services in New Zealand. The following is a description of current evaluations in New Zealand.

Clinical outcome studies, and overall service evaluations undertaken by Early Intervention for Psychosis Services in New Zealand

Totara House

Researcher:	Mark Turner
Email:	mark.turner@cdhb.govt.nz
Employed:	0.5 FTE in July 1999
Evaluation:	Commenced 1st February 2000; as at 1st April 2002, 128 people have been accepted into Totara house. Of these people, 18 were not 1st episode (mainly referred from other New Zealand services).

The reasons for evaluating the service include the following:

1. To standardise the way we track the progress of clients within Totara House.
2. To enable comparisons with other Early Intervention for Psychosis Units.
3. To be able to predict risk factors for poor outcome.

Totara House have separated evaluation into 3 sections, which are completed by the psychiatrist, psychologist and case manager 6-monthly: at intake assessment, 6-month, 12-month, 18-month, and discharge.

Psychiatrist interview

The psychiatrist interview includes assessing the following:

- Duration of untreated psychosis
- Duration of untreated illness
- Extrapyramidal symptoms
    - Abnormal Involuntary Movements Scale – AIMS (Guy, 1986)
    - Simpson-Angus NRS (Simpson & Angus, 1970)
    - Barnes Akathesia Scale (Barnes, 1989)
- DSM-IV Diagnosis (APA, 1994) including:
    - Primary Psychotic Disorder/Mood Disorder
    - Psychoactive Substance Use Disorder
    - Anxiety Disorder
    - Personality Disorder
    - Global Assessment of Functioning (GAF) (Frances, Pincus, & First, 1994)
    - Axis III
    - Family Psychiatric history
- Insight (David, 1990)
- Symptoms of Psychosis
    - Positive and Negative Syndrome Scale (PANSS) (Kay, Fiszbein, & Opler, 1987)

Psychologist interview

The psychologist interview includes assessing the following:

- Depression
  Calgary Depression Scale for Schizophrenia – CDSS (Addington, Addington, & Schissel, 1990)
- Anxiety
  State Trait Anxiety Inventory – STAI (Spielberger, 1983)
- Stigma
  Stigma Scale – (adapted from Wahl, 1999)
- PTSD
  Revised Impact of Event Scale – IES-R (Weiss & Marmar, 1997) (IES-R administered at 6, 12, 18 months and discharge)
- Personal Beliefs about Illness Questionnaire (administered at baseline only)
  (Birchwood, Mason, MacMillan, & Healy, 1993)

Case manager interview

The case manager interview includes assessing the following:

- Demographics (age, ethnicity, gender etc.)
- 'Pathways to care'
  Contacts with MH Services
  Contacts with Police
  Contacts with General Practitioners, counsellors, etc in 6 months prior to Totara House
- Height/Weight
- HCR-20 Assessing Risk for Violence (Webster, Douglas, Eaves, & Hart, 1997) (baseline only)
- Health of the Nation Outcome Scale (HoNOS) (Wing, 1994; Wing, Curtis, & Beevor, 1999)
- Quality of Life Scale (QLS) (Heinrichs, 1984)
- Substance Abuse Treatment Scale (SATS) (McHugo, Drake, Burton, & Ackerson, 1995)
- Vocational and living arrangements

At 6 months, 12 months, 18 months and 2 years the scales are re-administered to enable us to track the progress of clients in each domain.

In addition, case managers are asked to complete questions on the following:

- client involvement in psychoeducation group, art group and recreation group
- family involvement with family education group
- rehospitalisation
- use of respite
- risk taking behaviour
- self-harm
- aggressive/threatening behaviour

- forensic involvement
- custom compliance with medication question
- custom engagement with Totara House question
- days under Mental Health Act
- client's perception of treatment is elicited
- discharge information is also obtained.

Feedback on individual clients is provided by the researcher, and information of interest is presented to the multidisciplinary team monthly.

One other measure was initially included in the assessment process, but has been withdrawn; the Drug Attitude Inventory (DAI) (Hogan, 1983), which is used to predict compliance with medication. This scale was dropped in order to reduce client burden (the amount of questions actually asked of clients). On-going information collection on people who completed this scale will be used to assess its predictive validity.

No ethical approval for this evaluation is required, as the Canterbury Ethics Committee has deemed this project to be an audit. However, all clients are advised that aggregated data may be published, and that no individuals will be identifiable in any publication of Totara House outcome evaluations. Ethical approval is currently being sought to follow up clients after they leave Totara House.

Research projects

A recent study on 'Co-morbid anxiety disorders in First Episode Psychosis – prevalence and effect on outcome' Siew (2001) found that, using the Structured Clinical Interview for DSM-III-R Patient version (SCID-P), 37 out of 47 representative clients were found to have at least one anxiety disorder. The commonest diagnoses were social phobia (25 clients) and panic disorder (16 clients).

A study on 'The development and evaluation of a service for substance use disorder within an early intervention psychosis unit' (Whan, 1999) looked at the development of a dual diagnosis group treatment programme and evaluation of 13 first episode psychosis clients. Feedback from the eight clients who attended the group, their case managers and the two group facilitators suggested the group was effective in supporting and initiating harm reduction of substance use.

EPI Waitemata Health

Researcher: Mike Ang

The GAF (Frances et al., 1994), and HoNOS (Wing et al., 1999) are routinely administered; at baseline and three-monthly until discharge. This information is held only on client files.

In addition, information is routinely collected on the following:

- Age at entry
- Ethnicity
- Gender
- Referral source

- Number of contacts/type of contact (phone, home visit etc.)/reason for contact/amount of time taken: information collected for all staff
    - Case manager
    - Nurse
    - O.T.
    - Psychiatrist etc.
- Group involvement and contact
- Employment on entry and discharge
- Discharged to
- Reason for discharge.

This information is entered into Microsoft Access and findings are presented to team every couple of months.

Research projects

A study was undertaken in 2000 by five students from the Bachelor of Social Practice Programme at UNITEC, (Danni Burke-Kennedy, Caroline Jamieson, Amanda Purdie, Linda Robinson, and Mark Walker). The study was a pilot project designed to assess the impact of intervention services as delivered by the Early Psychosis Intervention (EPI) Team at Waitemata Health.

The project was entitled "Client evaluation of the Early Psychosis Intervention Service at Waitemata Health". Based on the findings of their interviews, the authors concluded that "EPI's early intervention strategies have indeed promoted optimum recovery and health and the wellness model provides a powerful tool for measuring recovery from psychosis and poor mental health" (Burke-Kennedy, Jamieson, Purdie, Robinson, & Walker, 2000; page 27). The greatest improvements were around symptoms, clarity, emotional states, harmony, feeling normal, getting back into work and relationships with the family. However, only 13 of 68 EPI clients approached agreed to be interviewed. This may have led to a significant bias in results obtained. It is one of the few outcome studies on Early Intervention Services in New Zealand identified.

In addition, several research projects are currently before Ethics awaiting approval:

1. "Maori Patients with First Episode Psychosis and Whanau Experiences of Psychiatric Services" Dr Mike Ang and Ms Traceyanne Herewini. This research asks patients and their families about their experience and perceptions of the psychiatric services they have received. By comparing those who have received general psychiatric care with those who have received care from a specialised multi-disciplinary early psychosis intervention team we hope to determine differences (if any) between the services. This research will provide feedback (both encouraging and critical) to existing services and also valuable information for the creation of new services aimed at improving the mental health of young Maori patients with a first episode psychosis (Mike Ang; personal communication; 2002).
2. "Outcome data of Maori Patients with First Episode Psychosis" Dr Mike Ang and Mr Hoani Paku. The research will help determine if there are any differences between Maori populations in comparison to non-Maori populations with first episode psychosis. It will also show if there is any improvement in outcome measures having received care from specialised early psychosis intervention teams. (Mike Ang; personal communication; 2002).

3. “A 12-Month Prospective Observational Study of the Acceptability of Atypical Antipsychotic Treatment and Quality of Life Outcomes in People with First Episode Psychosis.”

Taylor Centre

Research Contact: Malcolm Stewart

Currently, the Health of the Nation Outcome Scale (HoNOS) (Wing et al., 1999) and the Abbreviated Life Skills Profile (LSP-16) are administered at entry and three-monthly as part of the NZ-CAOS project (Gaines et al., 2001). New outcome measures are currently under review.

Research projects

In February 1999 the Mental Health Commission funded a project to describe and analyse the operation of the Taylor Centre and the change management processes that have led to the development of the current service (MHC, 1999b).

In addition, the Taylor Centre has a paper that is due to be submitted (Stewart, Gedye, & Fernando III). Stewart and colleagues suggest that it is important to evaluate outcome from the perspective of the client, the perspective of significant others, and from the clinical perspective. These three different voices were incorporated in this study. Current data was provided by current clients of the service, their significant others, and by staff of the EI team. Clients and their significant others were also asked to provide retrospective evaluative data about their experience of contact with the service. Extensive use of record review was made to evaluate change over time for the clients and to study services provision.

Overall the results of this evaluation show impressive improvements in client functioning, as assessed by the client, significant other, and clinicians:

- Clients showed significant improvements over time on HoNOS and GAF measures, and were on average back to their estimated level of function one year prior to the onset of the disorder.
- There was evidence that despite substantial improvements on overall HoNOS and GAF scores, more than 20% of clients reported continued at-least mild problems with anxiety, depression, sleeping, and eating difficulties, and continuing cognitive difficulties were reported by significant others. These issues could be further addressed in the intervention provided.
- Clients and their significant others both reported high rates of positive change in state of mental health, functional ability, coping ability, happiness well-being and speed of life satisfaction, and tended reported that the EI team had contributed significantly to this change.
- Clients showed return to slightly better than one-year pre-service entry levels for work/study status, with more than 70% being working or studying more than 20 hours per week at the conclusion of the study.
- Quality of life scores, particularly as rated by the clients, tended to be lower than other outcome scores, with only about 65% of clients and significant others rating the client’s quality of life as good or very good. These issues could be further addressed in the intervention provided.
- Significant others tended to report a reasonably low level of family burden due to the clients’ mental health difficulties. This suggests that they felt well supported by the EI team, and that the family education and upskilling was of benefit.

- Clients with a more chronic course of disorder had significantly poorer estimated HoNOS scores one year prior to service entry, but their outcome at the time of the study was similar to clients with acute onset disorders. This suggests that intensive early intervention work is also effective for those with a more chronic disease course, who are often considered to have a worse prognosis.
- Continued problematic drug and alcohol use following the onset of the disorder lead to significantly worse outcome. Premorbid problems with drug and alcohol did not predict worse outcome. These results suggest that it is the continuation of drug abuse rather than the history of drug abuse which is most problematical for recovery in early psychosis, and suggest that drug and alcohol abuse intervention should be addressed assertively with these clients.

In addition, clients and significant others showed high levels of satisfaction with the service, with 100% of clients and 94% of significant others rating staff as moderately-very competent, and all clients and significant others rating themselves as being moderately-very satisfied overall with the service they received. Clients and significant others both indicated staff attitude, professionalism, ready access to service, specific therapy approaches, family involvement, as key helpful aspects. Enhancing social opportunities was rated as a helpful aspect by clients. The level of support was rated as helpful by significant others.

Another useful aspect of a study such as this is the ability to develop improvements in service delivery.

Suggestions for improvement from the present study include:

Client

- Increased services
- More enhancement of social opportunities
- Follow-up after discharge

Significant others

- Increased services
- Maintain consistent personnel
- Further involvement of family

Little evidence was found that linked particular aspects of service delivery to improved or worse outcome, but this may have been due to this present study design being relatively weak for addressing this particular question. The small sample size (out of 25 eligible participants only 15 clients (60%) and 18 significant others (72%) returned questionnaires) make interpretation of these results difficult. The authors also note that variability of time in service, reactive effects between acuity and input, and difficulties in interpretation of correlational data are limitations of the present study. Nevertheless it is one of the few identified outcome studies on Early Intervention for Psychosis Services in New Zealand. As such, it has been included as Appendix II. It is felt that there is a lot in this study that is valuable for the report audience.

Wellington Early Intervention Service

Research Contact Lois Boyd

Information collected at Baseline

- General demographic information
- Referral source
- Pathways to care information
- Length of initial hospitalisation
- Duration of untreated illness
- Duration of untreated psychosis
- Family psychiatric history
- Current substance use problems

Information collected at 3, 6, 12, 18, and 24 months

- Clients participation in groups
- Family participation and psycho-education group
- Experience of early warning signs
- Hospitalisation since previous evaluation
- Self-harm behaviours
- Current medications and side effects
- AIMS (Guy, 1986)
- Contacts with team
- Living arrangements and social situation
- Substance use problems

Additional discharge information

- Reason for discharge
- DSM-IV Diagnosis (APA, 1994) including:
  - Primary Psychotic Disorder/Mood Disorder
  - Psychoactive Substance Use Disorder
  - Anxiety Disorder
  - Personality Disorder
  - Axis III
- Substance use problems
- Prescribed medication on discharge
- Time under mental health act
- Vocational and living arrangements
- Custom question on family involvement

Data collection has only started in the last few months.

Research projects

Treatment of Cognitive Impairment in Early Phase Schizophrenia (PhD project)

Investigator: Tai Kake

The study will examine:

1. The effects of two relatively new atypical neuroleptics on cognitive function in early phase schizophrenia.
2. Associations between specific cognitive functions and outcomes on social, vocational, and psychiatric symptom measures in early phase schizophrenia.

Manaaki House

PANSS (Kay et al., 1987) and HoNOS (Wing et al., 1999) are administered at Baseline 2 months, 6, 12, and 24 months (discharge). A measure of engagement and compliance is also estimated at Baseline 2 months, 6, 12, and 24 months (discharge).

In addition, information is collected on the following:

- Date admitted
- Demographics
- Referral source
- Days in hospital prior to Service
- Practitioners involved (and months)
- Estimated duration of untreated psychosis (months)
- Mental Health Act Y/N:
- CTO No: of days
- Number of days hospitalised while with service
- Groups involved in
- Number of Respite days
- Discharge date/place
- Reason for discharge

No formal statistics yet as early in collection phase; will probably use Excel to produce means etc. to feed back to clinical staff.

St Luke's First Episode Psychosis Service (FEP)

Research Contact: Jim Geekie

Information collected at Baseline

- Age at entry
- Cultural orientation
- Referral source
- Date referred to FEP

- Date seen by FEP
- PANSS (Kay et al., 1987)
- HoNOS (Wing et al., 1999)
- Hospitalisation prior to FEP, days in hospital
- Estimate of duration of untreated psychosis

3, 6, 12 and 24 month data collection

- PANSS
- HoNOS
- Custom-made engagement scale
- Custom-made compliance scale

In addition, at 24 months, information is also collected on:

- Number of groups attended
- Number of months involved with psychiatrists, psychologists, family work etc.
- Number of days hospitalised while with FEP
- Number of days in respite
- Date of discharge, reason for discharge, where discharged to
- Number of letters sent to General Practitioner during contact with FEP
- Number of months involved with the FEP social group
- Use of Mental Health Act (MHA) during time with FEP – yes or no
- CSW – yes or no
- Maori/Pacific Island service involvement yes or no

Data is entered on an Excel file. Data is available on 111 clients (some still current, so incomplete) since January 1998.

Research projects

Jim Geekie is currently conducting research in first episode psychosis, in a PhD project examining the 'explanatory models' used by schizophrenic patients to understand their psychotic experiences (delusions, hallucinations etc.). In addition, a university student is looking at clients' experience of the service.

Cornwall House

Research Contact: Averil Abbott

Cornwall House routinely administers the PANSS (Kay et al., 1987) and HoNOS (Wing et al., 1999) at 3, 6 and 12 months, and at discharge. Currently information is placed in clients' file.

Summary of New Zealand evaluations

Many New Zealand Early Intervention for Psychosis 'Services' have established outcome evaluation protocols. Common psychometric measures used include the PANSS and the HoNOS. Other measures used include custom adherence and engagement scales. In addition, information is collected on demographics, duration of untreated psychosis, and referral and discharge information. This information should be standardised, given the low prevalence of first episode psychosis in order to generate data on a national basis.

Several of the units that are currently collecting outcome information are not sure what to do with the data. They have no systems in place to analyse the information they collect, beyond individual outcomes for each client. Due to the low incidence of first episode psychosis, a consistent evaluation framework would be of use. Collating data on a national level would require considerable resourcing. However, an essential aspect of multi-site evaluation is a 'critical mass' of interested clinicians. From an examination of the current outcome evaluation being conducted in New Zealand that has been described in this section, it is apparent that there is considerable interest in outcome evaluation by Early Intervention for Psychosis clinicians.

Early Intervention for Psychosis Services can be justified on the basis of common humanity; it is morally better to treat people early; and both clients and their families like additional support available from specialist teams. Additionally, there is persuasive evidence that Early Intervention works, at least while clients are receiving treatment (Larsen et al., 2001). What is not known is the aspects of Early Intervention that are responsible for treatment gains. It may be argued that it is unethical to use components with unproven efficacy, given the prioritising of public health expenditure in New Zealand. While Early Intervention for Psychosis Services are still in their formative years they should resist adding components without assessing their usefulness. It is ethically acceptable to add new treatments to a service and evaluate the outcome of the new component, by comparing outcomes with a group of clients who do not receive the new treatment.

Limitations of evaluations

No research could be identified that examines if Early Intervention works or not. For this to occur, randomised controlled trials are required, or the more ethically acceptable quasi-experimental designs (McGlashan, 1996b). In order to evaluate the delivery of mental health services, randomisation is the most robust method of eliminating selection bias and judging the true value of interventions (Sackett, Haynes, & Guyatt, 1991). However, withholding treatment from individuals is ethically unacceptable (McGlashan, 1996b). To get around this issue, cluster randomised controlled trials can be used (Ukoumunne et al., 1999).

Cluster randomised studies involve the random allocation of groups of clinicians, clinical teams or hospitals rather than individual patients, and produce the least biased evaluation of mental health policy, organisation or service delivery (Ukoumunne et al., 1999). Where randomisation is impossible or impractical (often when services or policies are already implemented as in existing Early Intervention for Psychosis Services), then quasi-experimental designs can be used. Such designs have both strengths and many potential flaws. These have been discussed in the context of Early Intervention for psychosis by McGlashan (1996b).

A randomised control trial of an intervention for psychosis has been attempted in the UK. In Lambeth, (London) the Maudsley Trust has developed a new early intervention service. The Lambeth Early Onset (LEO) team will be evaluated in a randomised controlled trial (Garety & Jolley, 2000). Clients will be eligible for the study if they are aged between 16 and 40 years, live in the catchment area, and present with a first or second episode of a schizophrenia spectrum disorder. Randomisation occurs at the point of referral to psychiatric services, where consent is sought for research ratings and for post-randomisation follow-up.

The LEO team comprises twelve staff with caseloads of about ten clients each and the treatment package includes psycho-social interventions, family work, facilitation of access to education and employment, service user involvement, integrated care for patients with dual diagnosis, and optimal low dose anti-psychotic treatment. The control group receives standard care as delivered through pre-existing teams. Clinical and social outcomes will be assessed within a week of allocation and at six and eighteen months.

Part 4 Core Elements of Early Intervention Services

Introduction

The aim of the present section is to provide an account of the key effective elements of Early Intervention for Psychosis. The objective is to draw on local evaluation results and supplement these with literature from other Early Intervention for Psychosis Services. Specifically this section will:

1. Describe the difficulties associated with outlining the key effective elements of an Early Psychosis Intervention service based on local evaluation results (and including local/international literature).
2. Examine the concept of providing treatment *early*. This will involve analysing the evidence associated with improved outcomes after reducing the duration of untreated psychosis.
3. Look at what constitutes best practice *intervention* in Early Intervention; for example intensive case management, low dose atypical antipsychotics, family work etc.
4. Provide a summary from the elements discussed below of what Early Intervention for Psychosis Services should be providing.

Background

The aim of the present section is to examine the best possible evidence about what works for early intervention in psychosis. While the focus will be on empirically validated strategies, as in many other areas of community mental health, rigorous scientific evidence of effectiveness is often not available. Therefore in order to identify core elements of intervention services, a thorough review of the literature was undertaken as well as consultation with experts in early intervention services in New Zealand and overseas. It is necessary to identify the essential aspects of Early Intervention for Psychosis Services, in order to establish the effectiveness of these core elements in comparison with standard community treatment. Additional elements of service provision will then need to be trialled in order to establish their additional effectiveness in clinical practice, given the rationing of public health expenditure in New Zealand.

Following the terms outlined by the MHR&DS tender, the identification of core elements consisted of the following:

1. A review of the evidence available from New Zealand Early Intervention for Psychosis Service evaluations.
2. A review of the international first episode psychosis outcome literature.
3. A review of the more general psychosis efficacy literature, with an emphasis on evidence from systematic reviews of all randomised controlled trials.
4. Consultation with experts in various aspects of Early Intervention for psychosis. This included consultation with internationally recognised centres of excellence, including the EPPIC service in Melbourne (McGorry et al., 1996).
5. Taking account of the relevant statutory requirements of mental health services, such as those outlined in the Blueprint for Mental Health Services in New Zealand: the way things need to be (MHC, 1998) and The National Mental Health Sector Standards (MoH, 2001).

Difficulties in evaluating what works

While there is compelling evidence that Early Intervention for psychosis is effective, at least while clients are in treatment (Larsen et al., 2001; Linszen et al., 2001), it is another matter to identify what the core elements are that are having the effect. As Malla & Norman (2001) observe; "There are no empirical data available on the effectiveness of best practices in treatment of early psychosis" (page 647).

Research designs in first episode psychosis

As mentioned previously, there are two aspects of Early Intervention for Psychosis (Malla & Norman, 2001):

1. *Early* is as early as possible following the onset of (generally positive) psychotic symptoms; and the
2. *Intervention* is comprehensive, intensive, phase-specific and individualised treatment for these individuals.

Both of these aspects need to be studied in order to ascertain if Early Intervention for Psychosis Services work.

1. ***Early*** *Intervention*

In a randomised controlled trial (RCT), in order to investigate whether or not duration of untreated psychosis is causally associated with worse outcome following first episode psychosis, it would be necessary to randomly assign people to receive treatment early or delay the treatment. It would then be a matter of ensuring that both groups received the same treatment (controlling for all other variables), and then observing outcome. It would be expected that the group that had delayed access to treatment, and hence a longer duration of untreated psychosis, would have poorer outcomes. Obviously it is not ethical to withhold treatment, and so this RCT cannot be conducted.

There are two options available to test this hypothesis using a quasi-experimental design:

a. <u>Use of historical controls</u>

In this design, treatment is given as usual and evaluations are conducted. After enough people have been treated to generate statistical power, an intensive education programme is initiated and presumably duration of untreated psychosis decreases as people get to Early Intervention for Psychosis Services quicker. Measures are taken of this sample and, if all other variables are kept constant (as much as possible!) such as treatment received, we can infer that the better outcome for the second group is because they have a shorter duration of untreated psychosis. This approach has been used previously (A. Malla, 2001; Larsen, McGlashan, & Moe, 1996).

b. <u>Parallel control</u>

The second approach is to have an intensive educational campaign/early detection strategy in one geographical region but not in another (similar region). In the region where the intensive education programme is initiated, presumably, duration of untreated psychosis decreases as people get to Early Intervention for Psychosis Services quicker. Measures are taken of this sample and, if all other variables are kept constant (as much as possible!) such as treatment received, we can infer that the better outcome for this group is because they have a shorter duration of untreated psychosis. This approach has been used in The TIPS project (Larsen et al., 2000).

Both these approaches have a number of problems:

- with historical controls treatment variance is likely to be high
- new drugs and therapies are constantly being developed
- with parallel controls, the two groups are more likely to be different demographically.

McGlashan (1996) has provided a detailed account of the issues associated with research in examining the role of duration of untreated psychosis in first episode psychosis:

The second aspect to be considered in evaluating Early Intervention for Psychosis Services is the *Intervention.*

2. *Early* ***Intervention***

One of the major problems of evaluating what works in Early Intervention for psychosis is the fact that most services use an integrated approach to treatment. This means that it may be possible to look at whether or not a 'service' is working, however, it is extremely difficult to establish just what elements of the service are having the desired effect. Mechanic (1996) has discussed the difficulties of looking inside the 'black box' of effective interventions. One study is attempting to 'look at the black box'. The Lambeth Early Onset (LEO) team will be evaluated in a randomised controlled trial (Garety & Jolley, 2000). The experimental group will receive intensive integrated care, while the control group receives standard care as delivered through pre-existing teams. Both groups will be evaluated for client outcomes.

Inferences from the more general literature on psychosis

Another problem faced when reviewing the literature on early intervention for psychosis is that it is a relatively new field of research. There are a large number of papers and books on the subject of early intervention for psychosis but these present very little primary data on the topic. The studies that have been conducted are generally reporting data on very small samples and/or are 'works in progress'.

It is therefore necessary to refer to research that has been conducted in more chronic forms of psychosis (mainly schizophrenia) in order to recommend the core elements of Early Intervention for psychosis. Projects such as The Schizophrenia Patient Outcomes Research Team (PORT) Lehman & Steinwachs (1998) provide a basis for moving towards evidence based practice for schizophrenia. Similarly, the Cochrane Schizophrenia Group is concerned with the evaluation of the prevention, treatment and rehabilitation of people with non-affective, functional, psychotic illnesses (http://www.update-software.com/ccweb/cochrane/revabstr/g060index.htm).

Systematic reviews such as these provide *guidance* for what should be involved in first episode psychosis. Studies conducted in chronic psychosis populations may not be directly applicable to first episode psychosis. The variety of special clinical needs required by this population, taking account of the age of clients and the particular needs of first episode psychosis have been previously outlined (Malla & Norman, 2001; McGorry, 1992). They do however serve as a guide to elements that should be included in first episode psychosis, with appropriate adjustments made for this population. Throughout this text these studies of more chronic populations will be differentiated from first episode psychosis literature by referring to them as 'general' schizophrenia studies.

Given these caveats, what are the core essential elements of Early Intervention for Psychosis Services?

Early Intervention for Psychosis Guidelines

This question has been addressed by several groups, and their recommendations will be referred to throughout this report. A brief description of these guidelines is appropriate at this stage.

1. The New Zealand Early Intervention in Psychosis: guidance note was published by the Mental Health Commission in March 1999. This is the document that the core elements proposed in this report are based on, and the following discussion of core elements should be read in conjunction with the 'guidance note'.
2. The Australian Clinical Guidelines for Early Psychosis developed by the National Early Psychosis Project Clinical Guidelines Working Party and published by the National Early Psychosis Project, University of Melbourne in 1998.
3. The Initiative to Reduce the Impact of Schizophrenia (IRIS) is a network of services in the West Midlands of the United Kingdom. They have produced 'Early Intervention in Psychosis: Clinical Guidelines and Service Framework and Toolkit' (http://www.iris-initiative.org.uk/) to guide the development of Early Intervention for Psychosis Services.
4. 'Draft consensus statement – principles and practice in early psychosis.' This is a consensus statement to be presented in its final form at the Third International Conference on Early Psychosis to be held in 2002 in Copenhagen and published in a recent book on 'Implementing Early Intervention in Psychosis' (Edwards & McGorry, 2002).

The core elements addressed in this document are directly applicable to Early Intervention 'Services' and it is acknowledged that, given the low incidence of first episode psychosis, smaller centres may not have the population base to justify comprehensive separate Early Intervention teams. However, the purpose of this section is to describe "What Works" in first episode psychosis. Smaller services should exercise clinical judgement in providing the best service that they can by taking the key points from this document that are relevant to the needs of their individual clients. However, none of the key elements detailed below are sufficient to treat first episode psychosis on their own. It should be born in mind that the best possible outcomes for first episode psychosis clients can generally only be achieved by using a biopsychosocial approach (EPPIC, 2001). The following is a summary of key essential elements of Early Intervention for Psychosis.

Reducing the duration of untreated psychosis

As discussed previously, Early Intervention for psychosis can be conceptualised as consisting of two parts (Malla & Norman, 2001):

1. *Early* is as early as possible following the onset of (generally positive) psychotic symptoms; and the
2. *Intervention* is comprehensive, intensive, phase-specific and individualised treatment for these individuals.

The present section will examine the concept of the *early* aspect of early intervention. Generally this is conceived of as reducing the duration of untreated psychosis. Intervention in the prodromal phase has been discussed in 'Part 1' and is not the focus of this section.

Background

Duration of untreated psychosis refers to the period of time between onset of psychotic symptoms and initiation of treatment for those symptoms. However, there is no consistent definition of duration of untreated psychosis currently in use. See Norman & Malla (2001) for a discussion of this issue.

Malla and colleagues (1999) suggest that the duration of untreated psychosis is probably influenced by many factors including:

- pattern of onset of psychosis
- tolerance of abnormal or eccentric behaviour in the patients social network
- accessibility of appropriate care
- the skills and knowledge of health care in counselling professionals in a primary care setting; and
- the degree to which afflicted individuals in the family accept available treatment
- social and cultural factors such as the stigma of mental illness.

While no studies have addressed cultural differences in duration of untreated psychosis in New Zealand, Ryder, Bean, & Dion (2000) found there was a longer delay in seeking treatment among Chinese vs Euro-Canadians for cultural reasons. Notably their findings suggest that Chinese caregivers were more affected by the stigma of mental illness than were Euro-Canadian caregivers. Anecdotally, differences in duration of untreated psychosis for different cultures in New Zealand have been reported (Mason Durie; personal communication; April 2002). The New Zealand ‘Blueprint’ (MHC, 1998) states: “Maori access mental health services at a far later stage of their illness”. Gender difference have also been reported, with females more likely to be hospitalised within 1 month of the occurrence of their first psychotic symptom (60% of females compared to 37% of males) (Bromet et al., 1992).

Rationale for reducing duration of untreated psychosis

There are two main reasons for intervening early for psychotic disorders. The first is immediate reduction of unnecessary suffering. Large numbers of individuals are unnecessarily suffering for prolonged periods of time because of lengthy delays between onset of psychosis and initiation of treatment. People with psychosis often present many years after the onset of psychotic symptoms (Beiser et al., 1993).

The second reason for early intervention is the possibility that it will improve long term outcome. If duration of untreated psychosis does influence the course of psychosis by intervening earlier, we may be able to improve long term outcome beyond the level that will be accomplished by comparable interventions initiated at a later stage (McGlashan & Johannessen, 1996; McGorry et al., 1996; Birchwood, McGorry, & Jackson, 1997).

From an examination of the literature, it would appear that there is a large variance in the duration of untreated psychosis (DUP) reported. Linszen, Lenior, De Haan, Dingemans, & Gersons (1998) reported a mean duration of untreated psychosis of 22 weeks, while Szymanski, Cannon, Gallacher, Erwin, & Gur (1996) reported a mean duration of 166 weeks. Mean DUP can be misleading, as generally there is a concentration towards the shorter DUP’S and a comparatively small number of extremely long DUP’s. It is therefore more meaningful to look at median DUP’s. Browne and colleagues (2000) found a medium DUP of 26 weeks. Carbone, Harrigan, McGorry, Curry, & Elkins (1999) found that pre-EPPIC the medium DUP was 4.3 weeks while for EPPIC the medium was 7.4 weeks. Ho, Andreasen, Flaum, Nopoulos, & Miller (2000) reported a medium DUP of 13.5 weeks, while Larsen and colleagues (1996), found DUP to be 26 weeks. Essentially this means that there are a large number of people who are psychotic for long periods of time before receiving treatment.

An indicator of the importance of the duration of untreated psychosis comes from a study by Loebel and colleagues (1992). In a prospective study of 70 patients with schizophrenia and schizo-affective disorder, a longer duration of untreated psychosis was associated with lower frequency of, and longer time to, remission. The duration of untreated psychosis was independent of other predictors, such as age at onset and MRI findings of abnormal brain morphology. Wyatt (1991), suggests that untreated psychosis may have a toxic affect on brain functioning.

People experiencing their first episode of schizophrenic psychosis are much more responsive to anti-psychotic medication than during subsequent episodes (Kane, 1989), and relatively low doses of anti-psychotic drugs are needed during the early stages of psychosis (Kapur et al., 1996). Malla and colleagues (1999) have suggested that the combination of better tolerance to anti-psychotics, and greater brain plasticity associated with newer drugs could render first episode psychosis clients more amenable to psychosocial interventions. For example, during the early stage of psychosis, social support for the individual may still be available. Macdonald, Jackson, Hayes, Baglioni, & Madden (1998) have discussed the role that social support may have in recovery from first episode psychosis.

Norman & Malla (2001), have recently examined the concept of duration of untreated psychosis and its relationship to treatment outcome. From a review of the literature they suggest that duration of untreated psychosis may be related to ease of reducing psychotic symptoms once treatment begins for first episode patients. However, they found no evidence of a relationship to likelihood of relapse.

Does decreasing duration of untreated psychosis work?

The interest in reducing the duration of untreated psychosis comes from the suggestion that it is a potentially modifiable factor that has an independent influence on the outcome of psychosis (Norman & Malla, 2001). It is crucial to take account of potential confounds when assessing independent influence of duration of untreated psychosis on outcomes. For example, substance use can have a substantial impact on treatment outcome (Swofford, Scheller-Gilkey, Miller, Woolwine, & Mance, 2000). As Norman & Malla (2001) point out, it is conceivable that medical help will be sought later in those with co-morbid substance abuse and *therefore* duration of untreated psychosis extended. In the same manner, distrust of medical treatment might be responsible for both a delay in seeking treatment, (which would lead to a longer duration of untreated psychosis), and poor engagement with early intervention services and possibly poor compliance with medication. In this instance, it would be the distrust of services that leads to poor outcome *and* greater duration of untreated psychosis.

The existence of a causal relationship between longer duration of untreated psychosis and poorer outcome is not yet perfectly established (McGlashan, 1999). Verdoux and colleagues (2001) point out that the delay between onset of psychosis and first treatment is not randomly distributed with regard to the other characteristic of the disease and therefore we cannot exclude that the association between the duration of untreated psychosis and outcome is a spurious one. Verdoux and colleagues (1998) found that family history of psychiatric hospitalisation, lower level of education, global severity of illness, and low level of functioning prior to hospitalisation each predicted longer duration of untreated psychosis. Each of these correlates could in turn be a predictor of treatment outcome. It might be revealed that those people whose illnesses are detected and treated early were always going to do well, and badly if detected too late, no matter what the intervention.

There is currently no evidence of a relationship between duration of untreated psychosis and *longer term* outcomes such as likelihood of relapse. All four studies examining duration of untreated psychosis and likelihood of relapse or rehospitalisation have failed to find a relationship (Haas, Garratt, & Sweeney, 1998; D. Linszen et al., 1998; Wiersma et al., 1998; D. Robinson et al., 1999). This may be due to the reason that the factors delaying treatment seeking are also independently predicting poor outcome.

> *"Where the onset of psychosis is gradual, occurring in a person with poor premorbid interpersonal skills, in the absence of any obvious stressful events, and with negative symptoms predominating, detection of the onset of the psychotic disorder is likely to be delayed, often until major problems result from a deterioration of social functioning"* (Falloon et al., 1998; page 33).

The role of confounding and mental health research has been discussed in detail by Kim, Kaye, & Wright (2001). After reviewing the literature Norman and Malla (2001) suggests that there is evidence suggesting a relationship between DUP and initial response to treatment, although the robustness of such findings and the independence from all potential confounding variables is yet to be established.

The main problem in justifying *early* intervention in psychosis is that a randomised control trial of early and late intervention cannot be done because of ethical considerations (McGlashan, 1996b); that is, it is not ethical to withhold treatment from some people to see what happens to them. The TIPS project (Larsen et al., 2000) is the nearest approximation to a randomised controlled trial of early and late intervention that is ethically acceptable. In this quasi-experimental study design, a standard treatment protocol is used in all study populations to minimise the effect of treatment on outcome, and to maximise the effect of differences in duration of untreated psychosis.

In one geographical area, Rogaland in Norway, an early identification programme has been established, with intensive advertising on the indicators of psychosis, and destigmatisation. Two other areas, one in Oslo (Norway) and one in Roskilde (Denmark) have a normal identification process. The theory is that due to the intensive advertising campaign carried out in Rogaland people will come to the attention of services quicker than in the other two areas, thus reducing the duration on treated psychosis.

The hypotheses being tested are that:

1. An intensive early detection programme will lead to a reduction in the duration of untreated psychosis; and secondly
2. That a reduction of untreated psychosis will lead to improved outcomes as compared to the two areas that will have a longer duration on treated psychosis.

Results of the study will be of enormous interest in establishing the efficacy of *early* intervention for psychosis. Even if early treatment does not directly improve outcome it may do so indirectly by increasing engagement and compliance with medication. Kissling (1994) suggests that relapse rates in schizophrenia may be three times higher than they would be if all people prescribed neuroleptics actually took them.

Reducing the duration of untreated psychosis

Larsen (1998) examined the early course of illness in first-episode schizophrenia with special emphasis on the duration of untreated psychosis and 'pathways to care' (Lincoln & McGorry, 1995). They suggest the main obstacles for receiving treatment were withdrawal and poor social network. Larsen and colleagues also noted that frequently attempts to initiate treatment had been made early, but failed and were not followed up.

Reducing the duration of untreated psychosis involves two main elements.

1. Education to the general public about the signs and symptoms of psychosis and the availability of services. This type of publicity campaign has been successfully managed on a relatively small budget by Ashok Malla and colleagues in Ontario, Canada. One of the more successful elements of their advertising campaign was to use radio and television adverts on alternative stations that are targeted at young (high-risk) population groups, and strategically positioned posters (for example at University etc.) (Ashok Malla; personal communication; November 2001).
2. The other key element is to educate health care providers and professionals about the signs and symptoms of psychosis, the benefits of early intervention, and how to *efficiently* access Early Intervention for Psychosis Services.

1. Educating the public

Psychosis is a highly stigmatising illness. Those working in Early Intervention for Psychosis Services have a responsibility to accurately inform both the public and primary health care workers about the nature and reality of psychosis. Guideline 10 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states: "A strategy to promote a positive image of people with psychosis needs to be developed locally". These guidelines further suggest that a local community education programme should be developed. This should emphasise the treatability of psychosis and counteract negative social attitudes regarding psychosis. This should be targeted at professional and voluntary sectors likely to encounter young people with psychosis; for example student health services, police, and religious or cultural organisations.

Recently, Johns & van Os (2001) have presented arguments for considering psychotic experiences as a continuum with 'normal' experience at one end and Schizophrenia-spectrum disorders at the other end. The implications of such a model are profound for the implementation of education programmes aimed at early intervention for prodromal symptoms of psychosis. In particular, Johns & van Os (2001) argue that because psychotic experiences occur on a continua with normal experience, any project aimed at identification of high-risk individuals should be limited to the population of individuals seeking help for psychological problems, rather than the general population.

2. Educating the health sector

A team member needs to be responsible for overseeing the Education and Liaison for Early Intervention for Psychosis Services with the health sector. This involves establishing regular contact with identified members of the health sector that may have contact with people presenting with first episode psychosis and developing strategies for involvement or consultation in referral screening activities. Services to target include:

- Psychiatric Emergency Service
- Youth Specialty Service
- Acute Inpatient Service
- Community Mental Health Teams
- General practitioners
- Maori Health Workers.

General Practitioners and Maori Health Workers may well be the crucial health sector liaisons in order to reduce duration of untreated psychosis.

The Blueprint for Mental Health Services in New Zealand (MHC, 1998; page 34) discusses consultation and liaison with primary care services. The majority of people with mental health needs who want to access any service will access primary care services. In the case of many Maori, this will be to a Maori community mental health worker as well as through a General Practitioner (Mason Durie; personal communication; April 2002). As mental health services expand, part of their role will be to work with primary care providers to assist them in the detection and management of mental health problems. “A service that has prevention and early intervention as its focus will not succeed unless good links exist or are established with the primary care services in the sector or region within which the service intends to operate” (McGorry, Edwards, & Pennell, 1999; page 453).

Consultation and liaison services include assistance with supervision and training of staff in primary care agencies. Mental health community teams may also offer clinics in primary care practices and provide on-site advice and input. An example of this approach has been used in Birmingham with great success (Spencer, Birchwood, & McGovern, 2001). One of the seminal articles on early detection for psychosis (Falloon, 1992) emphasises the collaborative role of primary care workers in successfully reducing duration of untreated psychosis.

Concern has been expressed by some Early Intervention Services in New Zealand about a heightened awareness in the community of psychosis leading to an overwhelming of their service with prodromal and/or inappropriate referrals. This concern seems to be borne out by the results of the TIPS programme, Larsen and colleagues (2000), after an extensive advertising campaign in Norway report that approximately one in five referrals that they assess actually have a first episode psychosis[5]. Well-resourced teams would not find this an issue and it is recommended that, should assertive outreach be implemented in New Zealand, appropriate resourcing of Early Intervention Services would be required.

In Australia, it has been estimated that the average General Practitioner will have 3-4 patients with schizophrenia at any one time, but might expect to be involved in the diagnosis of only 4-5 patients with schizophrenia in their careers (Harris, 2000). Prodromal-like symptoms are extremely common in the adolescent and early adulthood age groups and General Practitioner’s must decide whether described symptoms are just normal adolescent behaviour, and anxious parent (especially since the individual might not be willing to go to a General Practitioner), or something more serious (Johns & van Os, 2001). However, Lincoln, Harrigan, & McGorry, (1998) found that 50% of their first episode psychosis sample had had contact with a General Practitioner *prior* to commencing effective treatment[6].

A concern in the New Zealand context is that services that are already stretched will become overloaded by referrals. In fact during the first year of the TIPS advertising campaign their detection team received 299 referrals of which only 32 would have met criteria for first episode non effective psychosis. However the potential overloading of services must be balanced by potential impact of untreated psychosis in a young person.

The recommendations of this report are that, in accordance with the Blueprint for Mental Health Services in New Zealand (MHC, 1998), every effort be made to intervene as early as possible after the identification of psychosis. Early Intervention for Psychosis Services should be able to appropriately refer (or monitor) ‘at risk’ individuals who present to their service.

The IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) state: “A strategy for early detection and assessment of frank psychosis is an essential component of early intervention”.

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[5] This was not seen as a problem by the TIPS group.

[6] Lester (2001) provides a useful paper on General Practitioner consultation for first episode psychosis.

‘In order to decrease duration of untreated psychosis there must be rapid access to services. Access to services in first-episode psychosis should be considered a priority’ Australian Clinical Guidelines (NEPP, 1998). The New Zealand Guidance Note (MHC, 1999a) states that:

1. There should be rapid access to psychiatric services for those individuals experiencing symptoms of possible first episode psychosis.
2. Where there are safety issues, access should be immediate. Mental health services need to be accessible twenty-four hours a day, seven days a week.
3. In most centres it is likely that after hours work is undertaken by an emergency service or shared with other services. In this case the specialist service should involved as soon as possible and the emergency service skilled in principles of early intervention.
4. The service and how to access it should be promoted and advertised to the community.
5. The service should accept referrals from a wide range of individuals, family and friends and primary care services.
6. The service should except everyone who comes for assistance and have the ability to refer people elsewhere if the service is not appropriate for them.

In order to promote rapid access to services, with the objective of decreasing duration of untreated psychosis, it is recommended that services track the ‘pathways to care’ (Lincoln & McGorry, 1999) of the people seeking service. If early intervention services are able to establish *where* people with first episode psychosis have been to seek treatment before arriving at this service they will be able to decrease the duration of untreated psychosis by targeting their liaison and education about the early intervention service to these areas. First contact for psychosis will likely be through an emergency service, acute inpatient service, or primary health care provider.

Due to potential stigma and lack of evidence of effectiveness it is not recommended that New Zealand Early Intervention Services should make treatment of prodromal or ‘at risk’ individuals a priority until better evidence of effectiveness is available. However, education about the benefits of Early Intervention and how to access these services to primary health care providers, (for example General Practitioners and Maori Health Workers) to facilitate treatment in a timely manner should be seen as a core element of Early Intervention for Psychosis Services.

Reducing duration of untreated psychosis is a key element of Early Intervention for Psychosis Services. Currently even multidisciplinary services find it difficult to allocate funding for an ‘education-liaison’ role (David Bathgate; personal communication; March 2002). Totara House has a 0.3 FTE position dedicated to this task and recent discussion within the team supported the importance of retaining a specialist role in this area, despite budgetary constraints.

Discussions with New Zealand services suggests this role should be to co-ordinate liaison, as no single worker has the ability to effectively liase with all appropriate parties. For example, Maori Mental Health Workers should establish liaison with Maori, medical staff should liase with medical personnel (General Practitioner’s etc.), nurses who might have previously worked in other services might maintain contact there, etc. The ‘education-liaison’ role also includes providing information to all relevant external groups in the most appropriate form (for example pamphlets, inservice education sessions etc.). This includes the development of a web page.

Conclusion

A recent review of the literature (Norman & Malla, 2001) suggests that duration of untreated psychosis may be related to ease of reducing psychotic symptoms once treatment begins for first episode patients, however, they found no evidence of a relationship to likelihood of relapse. It is ethically unacceptable to argue against reducing the amount of time people are experiencing psychosis. It seems that reduction in duration of untreated psychosis 'seems to be the most promising strategy' (Larsen et al., 2001). The preceding section has outlined some of the ways in which duration of untreated psychosis can be reduced. All of them require additional funding, not only to implement the detection strategies, but also to manage the resultant cases of first episode psychosis that may emerge.

Case management in early psychosis

The aims of the present section are to provide an account of the role that case management plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Case management is not a treatment, but a model or way of delivering services. There are two aspects to the discussion of case management in first episode psychosis relevant to the present aims of outlining core elements of Early Intervention for psychosis:

1. The more general model under which the case management, or care of the individual with first episode psychosis, is given.
2. The roles and responsibilities of the case manager/treatment team.

These aspects will be considered below.

Models of case management

The term 'case management' was first used in psychiatry in the 1960s, at the start of a trend to close large inpatient institutions and progressively base the care of most mental illness in the community. The term described a process that aimed to avoid fragmentation of available community services and provide a point of accountability for the care of patients with complex problems. A common observation has been that clients often 'fall through the cracks' between different community agencies or program elements and do not receive needed care (EPPIC, 2001). To remedy this situation, a case management function has been developed. Either several members of a team or one individual can be assigned to be the case manager, ensuring that patients receive co-ordinated, continuous, and comprehensive services.[7]

Clinical Case Management can be defined as:

> *"a modality of mental health practice that, in co-ordination with traditional psychiatric focus on biological and psychological functioning, addresses the overall maintenance of the mentally ill person's physical and social environment for goals of facilitating his or her physical survival, personal growth, community participation and recovery from, or adaptation to, mental illness"* (Kanter, 1989; page 316).

Rosen & Teesson (2001) suggests that there is strong evidence for the efficacy, effectiveness and cost-effectiveness of case management in psychiatry, the closer it conforms to active and assertive community treatment models. It appears, however, that studies and evidence-based

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[7] For a thorough discussion of case management in first episode psychosis, refer 'Case management in early psychosis: a handbook' (EPPIC, 2001).

reviews of case management may have been misused and misrepresented in a highly charged atmosphere of professional media debate.

It is therefore necessary to examine the concept of assertive community treatment (ACT) as it relates to the implementation of best practice in Early Intervention for psychosis. It is not proposed that Early Intervention for Psychosis Services must adhere to the strict definition of ACT, but rather take from this approach the key elements that contribute to successful recovery for people with first episode psychosis.

Explicit measures have been developed to examine program fidelity in assertive community treatment (Teague, 1998). These can be used to identify key features that may be useful in Early Intervention for psychosis.

Assertive Outreach

Another term for ACT, that is frequently used in the Early Intervention for psychosis literature is 'assertive outreach' (for example Spencer et al., 2001). The approach is characterised by work with clients in their own environment; whether at home, a cafe, or wherever is most effective. This flexibility of approach allows services to be provided to people who may not otherwise receive them, where they feel most comfortable. Case managers may also visit or accompany clients when they use other services. This encourages a two-way engagement that helps to develop trust and rapport and to establish links with other agencies.

The Sainsbury Centre for Mental Health (Bryant, 2001) describe the core characteristics of Assertive Outreach as:

- it is multi-disciplinary, comprising a range of professional disciplines (nurses, psychiatrists and social workers at a minimum; also, depending on user needs, support workers, workers who have also been service users, psychologists, occupational therapists, housing workers, substance misuse specialists and vocational specialists);
- there is a low ratio of service users to workers, usually ten clients per caseload;
- there is intensive frequency of client contact compared to that of standard community mental health teams (ideally an average of four or more contacts per week with each client);
- an emphasis on engaging with clients and developing a therapeutic relationship;
- offers or links to specific evidence-based interventions;
- time unlimited services with a no drop-out policy;
- work with people in their own environment, often their own home;
- engages with the users support system of family, friends and others;
- a team approach that provides flexible and creative support to the individual case co-ordinators.

Team reviews of clients allow both a discussion of issues which arise in treatment, and a collective approach to important issues to develop. Depending on local needs, assertive outreach staff may work together in a dedicated team, or they may be specialists working in a more generic community mental health team. However assertive outreach is configured, it will be essential that each assertive outreach worker takes responsibility for the overall package of care a client receives. Assertive outreach must therefore take place within an integrated system of care. However, it is the needs of the client with a first episode of psychosis that defines the use of this model. For example, may not want family involvement or require four visits per week.

A 12-month follow-up of assertive community treatment in Sydney, (Hambridge & Rosen, 1994) found a 35% decrease in hospital admissions; 62% reduction in the number of bed days and an increase in the number of ACT clients in stable accommodation. Chinman, Allende, Bailey, Maust, & Davidson (1999) conducted extensive interviews with three clients and their clinicians in order to identify the most useful aspects of assertive community treatment. Primary among these factors were the persistence demonstrated by ACT clinicians in engaging their clients, the trust that clients developed in their clinicians, and as a result, the process by which their clinicians became guides to the world of psychiatric and social services that further facilitated their clients' community adjustment. Although not conducted in first episode psychosis clients, studies such as this can point to the crucial aspects of case management.

The relationship between the clinician and the patient is pivotal to treatment. Frank & Gunderson (1990) have shown that 'nonchronic schizophrenia' clients who formed good alliances with their therapists within the first 6 months of treatment were significantly more likely to remain in psychotherapy, comply with their prescribed medication regimens, and achieve better outcomes after 2 years, with less medication, than clients who did not. The case manager needs to connect with the individual experiencing the psychosis, respect the individual's experience, acknowledge the validity of their concerns, and be available to reality-test ideas. The relationship is fostered by steps such as introducing the case manager early in treatment, including being involved in the initial assessment if possible. The case manager should be central to all decisions across inpatient and outpatient settings, and remain involved with the patient and the family throughout their time with the service (EPPIC, 2001).

Continuity of care should reflect an appreciation of the client's need for support and treatment over an extended period. Long term clients who have difficulty forming trusting relationships and maintaining historical perspective are best served by on-going personal relationships with case managers who are familiar with the past and present manifestations of their illnesses, their past and present personal functioning, and their social networks. Continuity of care is a key factor in success treatment of first episode psychosis (Jan Olav Johannessen; March 2002; personal communication).

Early Intervention for Psychosis Services should be funded to assist clients *through* the 'critical period' (Birchwood, 2001), rather than for an arbitrary time period such as two years. This is based on the work of Linszen and colleagues (2001) who suggest that some clients may need to be intensively followed up for up to five years. This consideration needs to be balanced with the ability to accept new clients *immediately* into Early Intervention for Psychosis Services.

Role of the case manager in early psychosis

As a case manager it is important to be assertive in ensuring that the client receives adequate treatment. Verdoux and colleagues (2000) suggest that 50% of people with first episode psychosis interrupt treatment if they do not receive adequate follow-up. This may mean ensuring the client attends by going to collect them or by visiting at home. The follow up will be *as intensive as the case requires*, which in the acute phase of psychosis may mean meeting with the family and the client two to three times a week, once or twice a week in the early recovery phase, and weekly or fortnightly in the late recovery phase.

Engagement

Engagement is necessary before a therapeutic relationship can develop and it is vital during the initial stages to 'get it right' (EPPIC; 2001). The association with the client is often very tenuous because of factors such as the nature of the illness, the young age of the population suffering a first episode psychosis, or negative stereotypes of mental illness. Attitudes such as denial of illness and the belief that medication is not needed or is ineffective (which are associated with non-compliance) are more common in first episode psychosis than in multi-episode consumers (Kane et al., 1982).

Engagement of the family is also vital and it is very important to provide information and support as early as possible. The family need to know that they can contact the case manager for on-going support and information that will continue throughout their time with the service.

For the client to develop a positive, trusting relationship with the mental health worker a single key worker needs to be allocated as early as possible. This worker should preferably be assigned for the entire 'critical period'. Failure to take prescribed medication or attend appointments should not lead to reduced contact or discharge. In such cases contact should be increased. Staffing levels must take into consideration the fact that frequent contact is often needed to engage such clients. Low case-loads allow the time required for the development of a therapeutic relationship and for persistent follow-up of individuals in danger of being lost to the service (Spencer et al., 2001).

The assertive outreach model provides a good structure for workers and different aspects of the model encourage engagement. The 'team model' which demands that all the staff know all the clients enables the best matching of staff skills to client needs as well as continuity of input when there are problems in particular relationships or breaks, owing to holidays etc. However, Mason Durie has suggested that Maori may engage more readily if just one key worker is identified (Mason Durie; personal communication; April 2002).

In St Lukes in Auckland and the Birmingham model (Spencer et al., 2001) of Early Intervention for Psychosis, all members of the team know all the clients. Workers attempt to engage the client on the basis of the latter's self-perceived needs, building on his or her strengths. Much of the work involves practical help with aspects of everyday life including benefits and housing. Providing the majority of services within the team gives continuity, which enhances engagement. The team is involved with clients during admission and the team psychiatrist is responsible for inpatient care. The service also employs former service uses, to whom clients may better relate, as support workers. The service also has a small social budget, which is very important in allowing key workers to engage with clients in low stigma settings such as sporting events (Spencer et al., 2001).

Collaborative therapeutic relationship

The collaborative therapeutic relationship is an alliance in which the case manager and the person with psychosis work jointly towards the goals of recovery (refer EPPIC, 2001).

The role of the case manager should be clearly explained, including:

- provision of practical and emotional support and information;
- acting as the main contact person in the mental health service, providing continuity of care, developing a comprehensive knowledge of the important issues, helping find solutions and linking with other parts of the service and outside agencies as appropriate;
- helping to explore confusion, disagreements or anger;
- developing early warning signs and introducing the concept of relapse prevention in the early phase of treatment.

The therapeutic alliance aims to assist the client to assume responsibility and independence in the management of their illness. In the initial treatment planning the case manager will guide the client. The relationship should progress naturally from being one of the case manager guiding the client to a more collaborative approach and then on to the client being able to work more independently.

Very little research has been conducted on the impact of case management in first episode psychosis. However, Jorgensen and colleagues (2000) have set up the largest study to date to evaluate a modified assertive community treatment programme aimed to improve the course and outcome in young persons suffering from psychosis as compared to treatment in generic community mental health centres. The findings of the first 312 patients randomised to assertive community treatment or standard treatment show that modified assertive community treatment results in patients adhering to treatment significantly better than standard treatment in community mental health centres (80% vs 64%).

In addition, the Lambeth Early Onset (LEO) team will be evaluated in a randomised controlled trial. Randomisation occurs at the point of referral to psychiatric services, where consent is sought for research ratings and for post-randomisation follow-up. The control group receives standard care as delivered through pre-existing teams. Clinical and social outcomes will be assessed within a week of allocation and at six and eighteen months (Garety & Jolley, 2000).

The Australian Clinical Guideline for first episode psychosis (NEPP, 1998) Number 4, states that a ‘Case Manager and treating Psychiatrist should be allocated to each client upon entry to the service and provide a range of services to meet the needs of the client and their family and carers’. The Case Manager plays a central role in ongoing management of the client and their family and carers. The overarching goal for the case manager is the promotion of recovery and prevention of relapse and ongoing disability. This can be achieved through assisting the client and their family to develop an understanding of psychosis and to develop resources that will assist them in the future. Collaboration is essential between Case Manager, the client and their family.

The New Zealand Guidance note (MHC, 1999a) states that “the care manager is the essential clinician for a person experiencing psychosis for the first time and should work with the treating psychiatrist or medical practitioner in partnership with the person and their family to assess the range of needs of the person and their family and co-ordinate the provision of the services required to meet these identified needs”.

Edwards, Cocks, & Bott (1999) report that patients and families identify four factors as being important in there relationship with the Case Manager:

- *Accessibility*. Both the client and family need to know that they can contact the Case Manager should a crisis arise.
- *Flexibility*. The clinician needs to be responsive to the changing needs of the patient and the family rather than dogmatically adhering to a particular theory or practice.
- Maintenance of *optimism* on the part of the Case Manager. In short, the clinician needs to promote recovery whilst expecting the patient to be actively involved in the recovery process.
- Finally, the patient and family are more likely to attend to, and implement, suggestions of clinicians who they believe possess the relevant training, knowledge and skills (*expertise*).

> *“The knowledge and skills required of a Case Manager are complex and broad and includes an ability to undertake mental state assessments, make formulations on multiple levels and provide family and psychological interventions using psycho-education and cognitive-behavioural frameworks, (Birchwood & Tarrier 1992). The model requires*

> *experienced highly trained and well-supervised clinicians, (Shepherd; 1990). Case Managers require weekly staff development sessions, case conferences together with individual and peer supervision and supplemented by short courses and workshops…"* (Edwards et al., 1999; page 327).

Guideline 2 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states:

> *"A key worker should be allocated early following referral of the case in order to develop engagement and rapport and to 'stay with' the client and family/friends through the first three years (the 'critical period') preferably within an assertive outreach model".*

Summary

Perhaps *the* key effective service element in Early Intervention for Psychosis is well skilled and resourced case managers providing a range of services to meet the needs of the client and family.

This implies:

- low case loads (should be of mixed discipline; nurses, O.T.'s, social workers etc.) case manager FTE to caseload ratio should be approximately 1:15 (this should not include psychiatrists, administration etc.) for clinically appropriate care of first episode psychosis;
- familiar with principles of Early Intervention and have the professional competence and resources available to provide many of the routine psychosocial treatment strategies;
- continued education, professional development, and supervision available.

In addition, there is strong evidence for the efficacy, effectiveness and cost-effectiveness of case management in psychiatry, the closer it conforms to active and assertive community treatment models (Rosen & Teesson, 2001). This literature has implications for the service model that should be used in Early Intervention for Psychosis Services:

- low caseloads;
- multi-disciplinary teams etc;
- services should be funded to assist clients through the 'critical period' (Birchwood, 2001), rather than for an arbitrary time period such as two years.

Medication in first episode psychosis

The aims of the present section are to provide an account of the role that medication plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

The New Zealand Guidance Note (MHC, 1999a) states that "psychiatrists and other medical staff need to be highly skilled in modern pharmacological management of psychosis using low dose strategies and must use atypical anti-psychotics. This includes knowledge of the full range of treatment options particularly when symptoms persist" (page 11).

The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that new anti-psychotic drugs should be prescribed for all those for whom they are clinically indicated. The targets for access to new atypical antipsychotic medications are set out in Moving Forward (MoH, 1997).

Bebbington (2000) states that "the principal underlining the use of neuroleptic medication in the early stages of schizophrenia is simple: It is to ensure that the experience of medication is as positive as possible". This means the rapid and effective reduction of the symptoms of the disorder, but also requires that patients experience the absolute minimum of side effects. Bebbington further suggests that the avoidance of side effects is perhaps *the* crucial consideration in the treatment of first episode psychosis.

Guideline Five of the Australian Clinical Guidelines for Early Psychosis (NEPP, 1998) states that "psychopharmacological interventions are to be provided during the acute phase and ongoing management of recovery from psychosis". The Australian Guideline further states that optimally drug treatment in early psychosis should be delivered in the context of a therapeutic relationship, which promotes adherence. The experience of medication can be enhanced in non-pharmacological ways (Bebbington; 2000) – building a trusting mutual relationship with clients, and in the process, providing information in an amount, sequence and manner that makes them feel safe, valued and involved (Motlova, 2000).

The central theme in psychopharmacotherapy in early psychosis is 'start low, go slow'. That is, use very low doses of neuroleptics and titrate very slowly. The EPPIC Early Psychosis Training Pack, (EPPIC, 1997a) provides a drug treatment algorithm for acute first episode psychosis.

Remington and colleagues (1998) reviewed the studies regarding neuroleptic treatment in first episode psychosis. They summarise the findings as follows:

1. People with first episode psychosis demonstrate a greater response to neuroleptic therapy than chronic subjects.
2. Both positive and negative symptoms are amenable to pharmacotherapy in people with first episode psychosis, even with conventional neuroleptics.
3. Lose dose treatment (haloperidol 2-6 milligram equivalence daily) is as effective, if not more so, than high doses.
4. People with first episode psychosis are more sensitive to extrapyramidal symptoms.

Remmington and colleagues conclude that low-dose neuroleptic therapy is an effective treatment strategy and the diminished risk of side-effects with this approach may further enhance compliance and outcome.

Adherence in first episode psychosis

Fenton, Blyler, & Heinssen (1997) reviewed 15 studies on adherence to medication regimes in general schizophrenia and found a median one month to two year non-compliance rate of 55%. They suggest that in addition to factors intrinsic to schizophrenia psychopathology, medication-related factors, available social support, substance abuse comorbidity, and the quality of the therapeutic alliance each affect adherence and offer potential points of intervention to improve the likelihood of collaboration.

Kemp, Kirov, Everitt, Hayward, & David (1998) examined the effectiveness of compliance therapy, a brief pragmatic intervention targeting treatment adherence in psychotic disorders, based on motivational interviewing and recent cognitive approaches to psychosis. In a randomised controlled trial, significant advantages were found for the compliance therapy group post-treatment on measures of insight, attitudes to treatment and observer-rated compliance, which were retained over the 18-month follow-up period. Psychoeducation as an indispensable complement to pharmacotherapy in schizophrenia. According to Motlova (2000) being informed about the side effects of antipsychotics does not negatively affect compliance and is essential for establishing patients' confidence in doctors and in the medication.

Medication Guidelines

New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) suggests:

- Current research has indicated that Clozapine and the atypical antipsychotics are less likely to produce extrapyramidal side effects (EPS) and are more effective than conventional anti-psychotics in the treatment of negative symptoms (Kane, Honigfeld, Singer, & Meltzer, 1988; Carman, Peuskens, & Vangeneugden, 1995).
- If possible, and depending on the severity of the persons psychosis, it is advisable for the person to have the first 48 hours free of antipsychotic medication. This enables the staff to closely familiarise themselves with the person and their symptoms, and gather further information, particularly if there is doubt about the nature of symptoms or aetiology.
- Other medications may be required for example, mood stabilisers in those with manic symptoms, or benzodiazapines if sedation is required. As a principal however, polypharmacy should be avoided, specifically with the use of multiple antipsychotics.
- Oral treatment is the preferred method because the person taking the medication is in control of the process.
- Clozapine should be considered if the person is still experiencing distressing or disabling symptoms after two adequate trials of other anti-psychotics. This would generally be from three to six months after treatments were started.

A useful resource for medication in first episode psychosis is the American Psychiatric Association ‘Practice Guideline for the Treatment of Patients with Schizophrenia’ (http://www.psych.org/clin_res/pg_schizo.cfm).

It is important to note however, that this document does not refer specifically to first episode psychosis, and therefore drug doses recommended tend to be higher than are required in first episode populations (Remington et al., 1998).

Maintenance therapy

One of the critical issues in early invention for psychosis is how long drug therapy should be maintained following the first episode of psychosis. This is an issue decided more by clinical opinion (and caution) than by hard evidence. Frances, Docherty, & Kahn (1996) advocate treatment for one to two years followed by very gradual tapering off and many clinicians would view this as reasonable (Bebbington; 2000).

Gitlin and colleagues (2001) examined the clinical course following neuroleptic discontinuation of clients with recent-onset schizophrenia who had been receiving maintenance antipsychotic treatment for at least 1 year. When a low threshold for defining symptom re-emergence was used, 78% (N=39 of 50) of the patients experienced an exacerbation or relapse within 1 year; 96% (N=48 of 50) did so within 2 years. They conclude that the vast majority of clinically stable individuals with recent-onset schizophrenia will experience an exacerbation or relapse after antipsychotic discontinuation, even after more than a year of maintenance medication. These findings indicate that clinicians, clients, and their families must be aware of the possibility of relapse and look for early warning signs.

Similarly, D. G. Robinson and colleagues (1999) examined relapse rates after resolution of first episode of psychosis in a well characterised sample of 118 people of first episode schizophrenia or schizoaffective disorder and found a cumulative first relapse risk of 81.9 percentage within the first five years after recovery. Discontinuation of drug therapy increased the risk of relapse by a factor of five. These findings suggest that drug therapy should be continued for most if not all clients for longer than twelve months after recovery from the first psychotic episode.

The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that:

> *"People with serious mental illness must have access to effective modern pharmaceuticals and psychological treatments such as cognitive behavioural therapy when there is evidence that these approaches would confer greater benefits that other treatments. An example of this is recognised in the National Mental Health Strategy, which has a specific objective and targets for increasing access to new anti-psychotic medications. These new drugs have fewer side effects and enable much greater improvements in peoples health and lives and reduce the wider economic and other costs of severe psychosis. New anti-psychotic drugs should be prescribed for all those for whom they are clinically indicated"* (page 33).

In a recent study, almost half the first episode psychosis participants were maintained without neuroleptics for a two-year period (Lehtinen, Aaltonen, Koffert, Raekkoelaeinen, & Syvaelahti, 2000). While this study needs replication, it suggests that Early Intervention for Psychosis Services must look carefully at the individual needs of clients before deciding on the use of neuroleptics.

Summary

Given the above caveat, according to all the available literature, and specialists in the treatment of first episode psychosis, a core effective service element of Early Intervention for Psychosis Services is:

- the judicious use of low-dose atypical antipsychotics as a first line treatment, given their low rates of extrapyramidal side effects;
- as part of the drug therapy, every effort must be made to enhance adherence with treatment. Psychosocial input in combination with medications have been shown to improve outcomes in first episode psychosis to a greater extent than either treatment modality alone (e.g. Falloon et al., 1998).

Consultant psychiatrist FTE to caseload ratio should be approximately 1:100 (not including medical staff in training) for clinically appropriate care of first episode psychosis.

Family interventions in first episode psychosis

Background

The aims of the present section are to provide an account of the role that family work plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

A guiding principle of Mental Health Services is that families should be involved and engaged in a collaborative treatment process to the greatest extent possible. Families are often the caretakers of clients and can benefit from education, guidance, and support, as well as training to help them manage in this role. The National Mental Health Sector Standards (MoH, 2001) contain a significant number of references to carers, families and whanau. The standards consistently indicate the duty of providers to involve families in the provision of mental health services, whilst preserving the autonomy of the tangata whai ora (MoH, 2000). The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that:

> *"there are significant advantages when support for families is provided as part of a continuing care programme. Services are more likely to be effective when they utilise the knowledge and experience of the people who are closest to the person who is ill"* (page VIII).

It is important to clarify the client's wishes regarding the involvement of the family in their recovery. In some instances, clients do not want their families involved. The basis of this feeling should always be carefully explored (NEPP, 1998; page 34).

In a recent meta-analysis, Pitschel-Walz and colleagues (2001) showed a 20% reduction in relapse and rehospitalisation rates if relatives of more chronic schizophrenic populations are included in care. Pharoah, Mari, & Streiner (2000) suggest family intervention may decrease the frequency of relapse, family intervention may also decrease hospitalisation and encourage compliance with medication but data are few and equivocal. According to a World Schizophrenia Fellowship Strategy Document (1998), research has conclusively shown that there are significant clinical, social and economic advantages in providing mental health services in a family inclusive way.

Involving Families: Guidance Notes (MoH, 2000) set out some of the ways in which families can be involved in the delivery of mental health services to their family member, as well as ways that mental health services can more effectively work with families. Of particular relevance to first episode psychosis is the issue that 'each person has different needs from their family according to their stage of life and development' (page 5).

Integrated mental health care (IMHC) (Falloon & Fadden, 1993) is a community-based model that considers the patient and informal carers to be the major contributors to stable recovery from severe mental health problems. This model is used at the Taylor Centre in Auckland for treatment of first episode psychosis and a description of the IMHC philosophy is provided by the Mental Health Commission (1999b). The IMHC model particularly stresses the role of family/whanau/significant others in the recovery and prevention of relapse for people with first episode psychosis. A study investigating the implementation of IMHC by New Zealand practitioners Allen & Read (1997) found that few of the trainees had been able to implement the model as much as they would have liked given resource constraints although it had given useful skills and insights. Further, they suggest that there are practitioners that want to work in different ways, and consumers who have other needs.

McFarlane has developed multiple-family group treatment whereby all family members, including the client are invited to attend a group treatment. Each group consists of six families and two co-facilitators. Multiple-family groups address family isolation and stigma, thus reducing strains that can lead to relapse (McFarlane, 1994; McFarlane, 1997). From consultations with New Zealand services, the multi-family group approach (McFarlane, Lukens et al., 1995) to treatment of first episode psychosis is being seen as an increasingly useful strategy by Auckland and Wellington services.

McFarlane, Lukens and colleagues (1995) found rehospitalisation rates and psychotic symptoms decreased significantly, and medication compliance was high for psychoeducational multiple-family group treatment and psychoeducational single-family treatment for 'general' schizophrenics, although the multiple-family groups yielded significantly lower 2-year cumulative relapse rates than did the single-family modality (16% vs 27%). Multiple-family groups are cost effective in that they represent an efficient use of clinician time, however some family members will refuse to participate and will need to be visited at home (Leff, 2000).

Family work in first episode psychosis

Greater emphasise has been placed on the role of the family in the therapeutic process following a client's first episode of psychosis (NEPP, 1998). Families can play a vital role in supporting the client and facilitating engagement in treatment thereby minimising long-term morbidity (EPPIC, 2001). Very little research has been conducted on families of those with first episode psychosis. Gleeson, Jackson, Stavely, & Burnett (1999) have summarised the efficacy of family intervention in first episode psychosis. They found that studies have utilised varying diagnostic and relapse criteria rendering generalisations difficult. They also found that the family interventions had varied markedly from study to study with little attempt to isolate the efficacious components.

Goldstein, Rodnick, Evans, May, & Steinberg (1978) used a randomised four-cell design contrasting a six week supportive and stress reducing family therapy to high- and low-dose anti-psychotic depot medications. Contrasted with psychosocial control of weekly individual visits. After six months follow-up they found a favourable effect of the family intervention and high dose depot medication. Goldstein and colleagues found that, in a group of people with first- and second-episodes, six crisis-orientated family treatment sessions dramatically decreased relapse rate for six months following discharge.

Zhang, Wang, Li, & Phillips (1994) conducted a randomised control trial of family intervention in 78 first episode schizophrenic patients. Family therapy over an eighteen-month period was contrasted with a standard care control group. The experimental group had a significantly lower readmission rate than the control, a shorter stay in hospital and a better overall level of functioning. However, the mean duration of illness in this first episode group was thirty-three months, which makes it hard to generalise the findings to other first episode populations.

Lenior, Dingemans, Linszen, de Haan, & Schene (2001) randomised families of early-onset schizophrenia clients into two conditions: standard intervention, and standard plus family intervention. Although only half the subjects were first episode psychosis clients, all were in the early phase of illness. No differential treatment effect with regard to the course of the illness was found, however in a five-year follow-up, patients from the standard plus family intervention condition stayed for fewer months in institutions for psychiatric patients than patients from the standard intervention condition.

Linszen, Dingemans, Scholte, Lenior, & Goldstein (1998) review a series of studies looking at relapse prevention for schizophrenia. They concluded that family intervention in combination with anti-psychotic medication was more protective against relapse that anti-psychotic medication alone (Goldstein et al., 1978), and was also more effective than individual therapy plus anti-psychotic medication (Falloon et al., 1982; Tarrier et al., 1988). D. H. Linszen and colleagues (1998) investigated the effectiveness of a 'family behavioural management approach' (FBMF) combined with standard individual therapy in comparison with standard individual therapy alone in young recent onset first or second episode schizophrenic patients. The FBMH families had been taken through a supportive psychoeducational programme while the client was in hospital. The standard individual therapy was highly effective and further benefit of family intervention could not be demonstrated.

The Expressed Emotion (EE) concept was developed as a response to the idea that the emotional qualities of family life have a bearing on the outcome of severe mental disorder. High levels of EE (such as critical comments by family members) are associated with poorer outcomes (Bebbington & Kuipers, 1994). Within first episode psychosis early feelings of loss, grief, and guilt are key determinates of subsequent high EE in relatives (Patterson, Birchwood, & Cochrane, 2000).

D. H. Linszen and colleagues (1998) reported that clients in high EE families were most at risk of relapse. Among low EE families the relapse rate in the combination intervention group was higher than in clients given standard individual therapy alone. The authors concluded that psychosocial intervention approaches need to be tailored to suit family type. Their family intervention therapist reported that the low EE families often interpreted the focus on improvement of communication skills as implying deficiencies in their familial relationships, which tended to increase rather than reduce stress within the family. This provides a useful warning not to interfere when families are doing well (Leff, 2000).

Linszen and colleagues (1998) emphasise the need in family work for first episode psychosis to attend to affective issues related to loss and mourning around the illness of their family member. Traditional behavioural family work programmes tend not to focus on emotional issues such as these. The findings of Linszen and others have implications for the treatment of first episode psychosis and indicate that family interventions used in more chronic populations may not be appropriate. By using interventions designed for use with more chronic populations and imparting an excessively pessimistic attitude to patients and their families regarding course and outcome, there is the capacity for causing harm to first episode psychosis clients (Gleeson et al., 1999).

In a review of social support in schizophrenia, Jackson & Edwards (1992) concluded that with increasing length of illness, social network size and support diminishes and that it tends to shrink in a fairly predictable sequence. Friends and acquaintances drop out first leaving the patient increasingly reliant on the family unit for support.

Of more serious concern is the evidence that this deterioration commences well prior to the first episode and can happen very rapidly (Jones et al., 1993). This pattern of erosion of the social network, particularly the peer group leads to a ‘developmental reversal’ (Gleeson et al., 1999). Consequently the client may miss out on opportunities to develop generalised skills e.g. social competency and intimacy. It is therefore a great advantage for the family unit to remain functional in order to support the client and prevent further deterioration by providing a safe environment for the person to come to terms with a first episode psychosis.

Tennakoon and colleagues (2000) examined the experience of caregiving in relatives of people experiencing a first episode of psychosis. They found that at first-episode psychosis, caregivers were already having to cope with a wide range of problems and are developing coping strategies. Caregivers worried most about difficult behaviours and negative symptoms in participants.

Malla and colleagues (1999) suggest that family atmosphere, (along with substance abuse and duration of untreated psychosis) are the only predictors of outcome of first episode psychosis that may be modifiable, and therefore indicate the most promising avenues of intervention. This means that family work in first episode psychosis is a crucial aspect of service and effort should be made to identify the effective aspects that are specific to Early Intervention and the individual needs of the client, and family/whanau. In terms of the needs of the families of people with first episode psychosis, the limited literature available suggests that in the initial stages of the illness families require an opportunity to express their emotions. Attempting to modify these processes of coping may even be associated with worse outcomes for some patients and their families (Gleeson et al., 1999).

Goldstein (1996) reviewed the appropriateness and the efficacy of various forms of psychoeducation, or family programmes, for different phases of a specific psychotic episode or in the history of the disorder. The data reviewed indicated that psychoeducational programmes focusing on the individual family unit are particularly effective for first or recent onset schizophrenic patients, particularly during the stabilisation phase of treatment. Data on groups for relatives-only or multiple-family groups suggest greater effectiveness during later phases of treatment (i.e. the maintenance phase) and with more chronic clients.

Guideline 7 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states: “Family and friends should be actively involved in the engagement, assessment, treatment and recovery process”.

The Australian Clinical Guidelines (NEPP, 1998) Number 7 states that “family and carers are involved in the assessment treatment and recovery process in episodes of acute psychosis”.

The New Zealand Guidance Note (MHC, 1999a) states that “the person’s family or friends need to be involved in all phases of assessment and treatment unless the person refuses. Family involvement is vital”.

Summary

From a review of the literature and consultation with New Zealand and international services it is apparent that family work is a key effective service element of Early Intervention for Psychosis Services. Empowering and supporting families and carers is one of the key evidenced-based tenants of early intervention. The core elements of family work are:

- Engagement with service
- Education about psychosis
- Individual family work as required
- Multi-group family work as appropriate.

Psychoeducation in first episode psychosis

Background

The aims of the present section are to provide an account of the role that psychoeducation plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

A first episode of psychosis is a confusing and distressing event for the individual experiencing the illness and for family, carers, friends and others. Therefore, psychoeducation aims to develop a shared and increased understanding of the illness for both the client and their family (Glick, Burti, Okonogi, & Sacks, 1994). A lack of knowledge about mental illness, the approach to treatment, the prognosis and the resources provided by the health system adds to the uncertainty and confusion. Providing appropriate levels of information at the correct time is a key role of case managers (EPPIC, 2001). Other health professionals are likely to be involved in this process and a team approach to ensure coordinated and consistent provision of information is advisable. Psychoeducation may be delivered in a variety of modes such as one to one, group sessions, or family work.

Psychoeducation for the client

In a recent review of patient education and schizophrenia generally Merinder (2000) concluded that there is a consistent demonstration of a relationship between providing patient education and improving knowledge and compliance to treatment. The improvement in compliance may be related to the finding that psychoeducation for consumers is associated with lower relapse rates (Fadden, 1998).

McGorry (1995) has discussed the therapeutic role that psychoeducation can play in first episode psychosis and concludes that "psychoeducation, by addressing the key issues of meaning, mastery, and self esteem provides a strategic tool for promoting recovery in a psychological sense, or strengthening coping responses, and for helping the recovering person find a way to accept other key elements of treatment such as prophylactic medication" (page 326).

According to the New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) education should explain:

- the nature of the illness;
- the range of treatment and support options available and evidence for their effectiveness;
- the importance of medication and associated issues (for example beneficial effects, side effects, adherence, effect on preventing relapse);
- how to identify and manage environmental stresses;
- how to identify and develop social supports;
- the patterns and variable nature/time course of recovery;
- the prospects for the future and what service users and carers can do to influence this;
- what agencies and personnel will be involved in their treatment;
- provide the person and their family with the skills to identify relapse signs early and to seek help for these.

The New Zealand Guidance Note further states that "above all, education should be positive, it must give the person and their family hope and optimism". This positivity must be realistic. Another essential part of psychoeducation is facilitating people expressing normal feelings regarding illness (for example anger or sadness) and help in acknowledging loss and grief. EPPIC (2001) also describes the key areas to be covered in psychoeducation for first episode psychosis.

According to the Australian Clinical Guidelines (NEPP, 1998) psychoeducation should be considered an ongoing process and the material used for psychoeducation purposes should be reviewed and updated constantly. Another key factor is that the material supplied to clients and their families is appropriate to early psychosis.

Clinicians must carefully consider the support material to be used. Much of the self-help literature currently available is designed for clients with established and chronic illness and may mislead and/or unduly demoralise people with first episode psychosis. To avoid giving a misleading impression of the nature and course of first episode psychosis it is advisable to use educational material that has been tailored to meet the specific needs of this group, and the nature of the illness (for example affective compared to non-affective psychosis).

Jackson & Iqbal (2000) suggest that psychoeducation will be best delivered as part of an individualised approach that can take into account the clients experiences, beliefs and recovery style. However, Module 9 of the Early Psychosis Training Pack (EPPIC, 1997b) suggests that a variety of forms may be used to impart information: One to one work with the client, group work with the client, family work and multi-family sessions.

While continuing education should be provided to the client by their key worker, group programmes are an effective means of imparting information to clients with early psychosis. Psychoeducation sessions in a group format can offer the opportunity for clients to participate in discussions that normalise and validate their experience. Participants can also gain support from a peer group who have been through similar experiences. As with all aspects of early intervention for psychosis, the choice of the optimal method of delivering psychoeducation must be tailored to suit the needs of the individual.

Psychoeducation can make a solid contribution to recovery and reduce the probability of a relapse (McGorry, 1995). However, no studies of the efficacy of psychoeducation in first episode psychosis could be found. A recent Cochrane review of psychoeducation for general schizophrenia (Pekkala & Merinder, 2000) reported evidence from trials suggesting that ‘any kind of psychoeducational intervention significantly decreased relapse or readmission rates at nine to 18 months follow-up compared with standard care’. Generally, findings were consistent with the possibility that psychoeducation has a positive effect on a persons' well-being. They concluded that psychoeducational approaches are useful as a part of the treatment programme for people with schizophrenia and related illness.

Family psychoeducation

Literature reviews of studies conducted on family interventions for general schizophrenia (Penn & Mueser, 1996), and bi-polar disorder (Goldstein & Miklowitz, 1994) concur that psychoeducational interventions result in reduced relapse and hospitalisation rates, improved compliance with medication and a reduction in the costs of care. In a review of family psychoeducation programs for general schizophrenia, Dixon, Adams, & Lucksted (2000) conclude these programmes should remain as part of best practice guidelines and treatment recommendations.

Family psychoeducation provides education, support, and skills to enable families to feel less burdened and to be more effective in helping their relatives with schizophrenia to manage their illness and avoid rehospitalisation (Dixon et al., 2000). While several approaches to family interventions have been developed *effective* family programmes share several characteristics (Drake et al., 2000):

- a collaborative relationship between the treatment team and family;
- social support and empathy;
- basic education about schizophrenia and its management;
- strategies to decrease tension and stress in the family;
- focus on improving the future rather than exploring the past; and
- duration of at least six months.

Baucom, Shoham, Mueser, Daiuto, & Stickle (1998) suggest that short-term family psychoeducation programmes improve knowledge and alleviate the family's sense of burden but have little impact on the severity or course of schizophrenia. Conversely, long term family interventions show consistently positive effects, typically reducing relapse or rehospitalisation by 25 to 50% over two years (Dixon et al., 2000).

Falloon, McGill, Mathews, Keith, & Schooler (1996) has suggested that staff from a range of professional backgrounds can be trained in the use of psychoeducational approaches. However, the issue of staff training is crucial and in a recent review of studies, Fadden (1998) notes that in those studies where staff did not receive *specialised training*, the outcome was not successful.

Family psychoeducation in first episode psychosis

Fadden (1998) suggests that it is not clear what type of family psychoeducational intervention is most helpful in first episode psychosis, and Hinrichsen & Lieberman (1999) point out the differences between family members of people with first episode psychosis and more chronic populations in which research is usually conducted. For example, low EE families may respond poorly to traditional family interventions used in more chronic populations (D. H. Linszen et al., 1998).

Linszen and colleagues (Linszen et al., 1996; D. Linszen et al., 1998; Linszen et al., 2001), advise that full-blown interventions that are generally used for more chronic client groups may be inappropriate for first episode clients and that brief crisis-orientated educational interventions, which include some problem solving and relapse prevention strategies, may be more effective. This type of psychoeducation has been described by Goldstein and colleagues (1978).

Guideline Eight from the Australian Clinical Guidelines for Early Psychosis (NEPP, 1998) states that "psychoeducation for clients and families is an essential component of the treatment process in early psychosis".

The New Zealand Early Intervention for Psychosis: guidance note (MHC, 1999a; page 14) states that "…intensive education for the family is required".

Summary

Studies from the more general literature on schizophrenia suggest psychoeducation for both clients and carers is a useful endeavour. Despite the paucity of literature on the efficacy of psychoeducation in first episode psychosis, it is considered a key effective service element of Early Intervention for Psychosis Services. While the delivery of information should be tailored to the needs of the individual, it is further suggested that funding is available at a national level to develop psychoeducational materials suitable for the New Zealand context. A concern that came up repeatedly during the consultation process for developing these elements was the feeling of 're-inventing the wheel'. That is each Early Intervention Service was spending large amounts of time developing materials. This point is particularly evident when information needs to be translated into other languages to meet the needs of clients *by each unit*. From the general literature it would appear that family psychoeducation/support needs to be of a long duration and Early Intervention Services' resourcing must reflect this commitment to families.

Relapse prevention

The aims of the present section are to provide an account of the role that relapse prevention plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Relapse in psychosis is conventionally defined as the re-emergence or exacerbation of the frank psychotic symptoms (Birchwood & Spencer, 2001). It has been argued that the early course of psychosis is sharply predictive of its longer-term course and that there may be a toxic effect of cumulative exposure to positive symptoms. Given this, the prevention of relapses and treatment resistance might alter the long-term outcome of psychosis, presumably by limiting the postulated 'neurotoxic effect' of active psychosis (Wyatt, 1991). D. H. Linszen and colleagues (1998) have suggested that relapse prevention is the most important aspect of Early Intervention for Psychosis.

The basis of relapse prevention is the modification of stress and vulnerability factors by means of the best practice interventions discussed throughout this section (Falloon, Kydd, Coverdale, & Laidlaw, 1996). Clients and their families should be informed about the risk factors within the context of the stress-vulnerability framework. A shared and documented relapse prevention plan for each individual can then be developed and rehearsed with the client and his or her social network. McFarlane, Link, Dushay, Marchal, & Crilly (1995) has presented evidence of the long-term therapeutic effect for multiple family groups, when combined with antipsychotic medication and psychoeducation, in reducing psychotic relapse for patients with general schizophrenia.

Rabiner, Wegner, & Kane (1986) found an 80% relapse rate after one year for first episode psychosis clients. Gitlin and colleagues (2001) examined the clinical course following neuroleptic discontinuation of clients with recent-onset schizophrenia who had been receiving maintenance antipsychotic treatment for at least 1 year. When a low threshold for defining symptom re-emergence was used, 78% (N=39 of 50) of the patients experienced an exacerbation or relapse within 1 year; 96% (N=48 of 50) did so within 2 years. They conclude that the vast majority of clinically stable individuals with recent-onset schizophrenia will experience an exacerbation or relapse after antipsychotic discontinuation, even after more than a year of maintenance medication. These findings indicate that clinicians, clients, and their families must be aware of the possibility of relapse and highlights the need for education and the need for early warning signs to be identified.

Three controlled studies have demonstrated that specific programs to educate patients and families about prodromal symptoms and early intervention when symptoms occur can be helpful in reducing relapse rates (Marder, Wirshing, Van Putten, Mintz, & et al., 1994; Herz, Glazer, Mostert, Sheard, & et al., 1991; Pietzcker, Gaebel, Koepcke, Linden, & et al., 1993). In order to implement a formal strategy for relapse prevention, clients and family members are educated about prodromal symptoms and behaviours, and regular monitoring should occur. Patients and families are able to call for assistance 24 hours a day, 7 days a week, and assertive outreach should be available for patients who do not have access to or will not cooperate with treatment.

Birchwood & Spencer (2001) have reviewed the empirical evidence for best practice in relapse prevention. They conclude that psychological approaches for relapse prevention (for example Hogarty and colleagues (1997) use of 'personal therapy' for stress management, and the use of cognitive behavioural therapy (Gumley & Power, 2000)) are well-developed and promising, but under-evaluated. Stress management may be a crucial factor in the prevention of relapse (Nuechterlein et al., 1994).

An active relapse monitoring procedure can also be instituted. There is a need to identify, in collaboration with the client and the family, the client's unique early warning signs of psychotic relapse and to prepare and rehearse a response to these. It has been shown that relapse rates can be significantly reduced through a systemised mapping of early warning signs (Leff, 1994). Birchwood (1992) and others have described a system for detecting early signs of relapse, the ‘relapse signature’. Jorgensen (1998) suggests that, if early warning signs are to be detected, monitoring of should be done at least fortnightly.

Edwards, Maude, McGorry, Harrigan, & Cocks (1998) have identified three months after initiation of treatment as the critical point at which the presence of persisting positive symptoms should motivate assertive action. If positive symptoms are persisting clients at EPPIC are referred to the Treatment Resistance Early Assessment Team (TREAT), which offers reassessment in a variety of interventions, including CBT and assertive pharmacotherapy.

Summary

The establishment of relapse prevention strategies including early warning signs is a core element of Early Intervention for Psychosis Services. Criteria 16.4 of the National Mental Health Sector Standards (MoH, 2001) requires ‘the identification of early warning signs and relapse prevention is included in the individual plan’.

Co-morbidity in first episode psychosis

The aims of the present section are to provide an account of the role that the identification and management of co-morbidity plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Most of the literature on secondary morbidity in early psychosis populations is limited to prevalence studies. Co-morbidity with problems such as substance misuse, depression, suicidal thinking, social avoidance and phenomena similar to post traumatic stress disorder are common in first episode psychosis and need assessment and treatment, both in there own right, and because of there potential to act as stressors provoking relapse (Birchwood, Todd, & Jackson, 1998). Jackson, Hulbert, & Henry (2000) describe the treatment of secondary morbidity in first episode psychosis, within the context of their Cognitively Oriented Psychotherapy for Early psychosis (COPE) treatment at EPPIC. From their clinical experience, Jackson and colleagues (2000) argue that prompt and judicious use of cognitive behavioural intervention for these disorders can greatly assist the recovery process.

Empirical evidence of the prevalence of secondary morbidity in early psychosis populations is limited with most of the available data relating to those patients with more established schizophrenic disorders. Strakowski, Keck, McElroy, Lonczak, & West (1995) examined psychiatric comorbidity in seventy-one first episode psychotic patients. Comorbidity was present in 69% of Ss, and 49% had multiple comorbid diagnoses. Borderline personality disorder is also one of the more frequent co-morbid diagnosis in the first episode population (Hogg, Jackson, Rudd, & Edwards, 1990). Poyurovsky, Fuchs, & Weizman (1999) found that 7 out of 50 people consecutively hospitalised with first-episode psychosis had obsessive-compulsive disorder. McGorry and colleagues (1991) found the prevalence of PTSD to be 46% at 4 months and 35% at 11 months, measured by a questionnaire linked to DSM-III criteria.

Anxiety

In a study conducted at Totara House (Siew, 2001), using the Structured Clinical Interview for DSM-III-R Patient version (SCID-P), found that 37 out of 47 representative clients had at least one anxiety disorder. The commonest diagnoses were social phobia (25 clients) and panic disorder (16 clients). Due to the study's small sample size and missing data, generally, statistically significant differences in outcome measures between the anxious and non-anxious psychotic patients could not be demonstrated. However the data indicated trends towards poorer outcomes for those people classified as having a co-morbid anxiety disorder. Strakowski and colleagues (1995) found anxiety disorder to be present in 21% of their sample, and PTSD in 23%.

Depression

Depression is a common feature of psychosis and is associated with increased personal distress, poorer functional performance, higher rates of relapse, and increased mortality through suicide (Addington, 1998). Johnson (1981) reported that 50% of clients with first episode psychosis were either depressed at admission or had been in the previous 2 months. Johnson (1988) has suggested that it is important to take account of depression that develops one year after recovery from an acute relapse as this indicates a significant increase in the risk of a further relapse within 2 years. Bottlender, Strauss, & Moller (2000) found that 'depressed mood' was present in 38.9% of 998 'first admitted schizophrenic patients'.

One of the general aims associated with the management of early psychosis as described in the New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) is: 'to reduce secondary mental health problems (e.g. depression, anxiety disorders, post-traumatic stress disorder, substance abuse) and actively treat these when they occur'. The Guidance Note further states that "The Early Intervention Team should aim to identify psychological disorders when doing their initial assessment and diagnosis of the person's symptoms and should call on advice and expertise from other specialist teams as required. This is particularly important for alcohol and drug disorders and anxiety disorders because the most appropriate course of treatment is usually quite different from that of a person who does not have other disorders accompanying psychosis. It is also important where evidence of abuse including sexual abuse, exists that the trauma related to abuse is addressed" (page 17). See Read, Perry, Moskowitz, & Connolly, (2001) for a discussion of the potential contribution of early traumatic events to schizophrenia.

Guideline 9 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states: "Assessment and treatment of 'comorbidity' should be undertaken in conjunction with that for psychosis".

Despite the relative lack of information available on co-morbidity in first episode psychosis, treatment and evaluation of co-morbid conditions is considered a key essential element of Early Intervention Services.

Alcohol and drug treatment in first episode psychosis

The aims of the present section are to provide an account of the role that the identification and treatment of substance misuse issues plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field. While part of general co-morbidity, substance misuse deserves particular attention as it is one of the few predictors of outcome in first episode psychosis that may be modifiable (Malla et al., 1999).

Dixon, Haas, Weiden, Sweeney, & Frances (1991) suggest that up to 60% of people with general schizophrenia use illicit drugs. Swofford and colleagues (2000) report that 55% of 262 schizophrenia outpatients had a history of past or current substance use. Substance abuse is strongly associated with medication non-compliance among patients with schizophrenia generally (Owen, Fischer, Booth, & Cuffel, 1996; Fariello & Scheidt, 1989) and following first episode psychosis (Verdoux et al., 2000).

Based on several studies, it appears that a significant minority of patients who become psychotic for the first time have used alcohol or drugs significantly for varying periods before the onset of psychosis. Although the role of substance abuse in the actual outbreak of psychosis remains arguable in these instances, there is heuristic value in suggesting that psychotogenic substances may abet the first episode of psychosis. Bowers, Boutros, D'Souza, & Madonick (2001) explore the role that LSD, cannabis, amphetamine, and cocaine might have in facilitating biochemical processes thought to be involved in the positive symptoms of psychosis. They found that a significant minority of people who become psychotic for the first time have used alcohol or drugs substantially for varying periods before the onset of psychosis.

Rabinowitz and colleagues (1998), using the SCID severity rating, found that 17.4% of males and 6.2% of the females with a first admission for psychosis had moderate or severe current substance abuse, while 58.5% of males and 31.8% of females had a lifetime substance use diagnosis.

Strakowski, McElroy, Keck, & West (1996) examined associations of antecedent drug and alcohol abuse with age of onset of bipolar disorder and the time to hospitalisation with 59 patients presenting with a first episode of psychotic mania. Antecedent alcohol abuse was present in 12 (20%) people, and antecedent drug abuse in 19 (32%) people. Antecedent alcohol abuse was associated with a later age of onset of the bipolar disorder, while drug use was not associated with age of onset. Subjects with antecedent drug or alcohol abuse required hospitalisation sooner. In an earlier study, Strakowski and colleagues (1995) found alcohol abuse to be present in 38% and drug abuse in 27% of 71 first episode psychosis subjects.

Of 168 people presenting with 1st-episode psychosis, criteria for drug use, drug misuse or alcohol misuse were met by 37% of the sample (Cantwell et al., 1999). Kovasznay and colleagues (1997) found similarly high levels of history of substance misuse disorder; 43.8% in non-affective psychosis and 49.1% in affective psychosis.

Cannabis

Most of the international literature on substance abuse and psychosis focuses on drugs such as speed, heroin and cocaine in more chronic populations. However, in New Zealand the main illegal substance of abuse is cannabis. In a literature review of cannabis use and psychosis, Hall & Degenhardt (2000) found limited clinical evidence for the hypothesis that heavy cannabis use causes a 'cannabis psychosis'. That is, a psychotic disorder that would not have occurred in the absence of cannabis use and which can be recognised by its pattern of symptoms and their relationship to cannabis use. They suggest that although unclear, it is also probable that cannabis use precipitates schizophrenia in persons who are vulnerable and exacerbates symptoms in affected individuals.

In a representative first-episode sample of 232 patients with schizophrenia (Hambrecht & Hafner, 2000), 13% of the sample had a history of cannabis abuse, which was twice the rate of matched normal controls. Consistent with the literature, male sex and early symptom onset were major risk factors. While cannabis abuse almost always preceded the first *positive symptoms* of schizophrenia, Hambrecht & Hafner (2000) differentiated three approximately equal groups of patients when assessing the *prodromal* symptoms of schizophrenia:

- group 1 had been abusing cannabis for several years before the first signs of schizophrenia emerged;
- group 2 experienced the onset of both disorders within the same month; and
- group 3 had started to abuse cannabis after the onset of symptoms of schizophrenia.

Hambrecht & Hafner (2000) discuss these results from a stress-vulnerability model suggesting:

- Group 1 might suffer from the chronic deteriorating influence of cannabis reducing the vulnerability threshold and/or coping resources.
- Group 2 consists of individuals which are already vulnerable to schizophrenia. Cannabis misuse then is the (dopaminergic) stress factor precipitating the onset of psychosis.
- Group 3 uses cannabis for self-medication against (or for coping with) symptoms of schizophrenia, particularly negative and depressive symptoms.

Initial findings from a Christchurch study examining interactions between cannabis use and major mental disorders in first admission patients, suggest that most people stop cannabis use after admission (Cecilia Hamel-Smith; personal communication; 2002). However the response rate in this study was extremely low, limiting the generalisability of these findings. Nevertheless, this may present a window of opportunity for addressing issues of substance abuse in first episode psychosis. Harm reduction may be a more realistic aim than abstinence for this group.

Integrated Substance Abuse Treatment

No studies of the efficacy of substance abuse treatment in first episode psychosis have been identified. However, current approaches to integrated dual diagnosis treatment in more general schizophrenia emphasise motivational interviewing for clients who are not ready to participate in abstinence orientated interventions. According to a review of the literature by Drake, Mercer-McFadden, Mueser, McHugo, & Bond (1998), comprehensive integrated treatment programmes help people reduce substance abuse and attain remission thereby reducing the risks of negative outcomes which have been associated with dual disorders.

In the integrated treatment model the same clinicians or teams of clinicians provide substance abuse treatment and mental health treatment in a coordinated fashion. Drake and colleagues suggest that several program features appear to be associated with effectiveness: assertive outreach, case management, and a longitudinal, stage-wise, motivational approach to substance abuse treatment. However, a Cochrane review of treatment programmes for people with both severe mental illness and substance misuse, concludes that the current momentum for integrated programmes is not based on good evidence (Ley, Jeffery, McLaren, & Siegfried, 2000).

Addington & Addington (2001) found that approximately 37% of admissions of first episode patients met criteria for substance abuse or dependence. Hambrecht & Hafner (1996) looked at the relationship between substance use and the onset of psychotic symptoms in first episode psychosis. In the study the onset and course of schizophrenia and substance misuse were retrospectively assessed in 232 people with first episode schizophrenia. Alcohol misuse more often followed than preceded the first symptom of schizophrenia. Drug misuse preceded the first symptom in 27.5% of the cases followed it at 37.9% and emerged within the same month in 34.6% of the cases.

Meuser & Glynn (1995) describe a simplified stress-vulnerability model which suggests that the individual who is vulnerable to schizophrenia has a “sensitive brain”. This brain is particularly sensitive to stress, either environmental or chemical. One of the major stressors that need to be avoided or eliminated is substance use. Malla & Norman (2001) suggest that substance use is one of the few factors associated with poor outcome in schizophrenia that is readily amenable to change. It is therefore an area that is of crucial importance for early intervention in psychosis services. Substance abuse is the most common co-morbid problem in first episode psychosis (Strakowski et al., 1993). It can lead to delays in accessing treatment, particularly if symptoms are attributed to substance use rather than an illness. Whatever the relationship between substance abuse and psychosis, it is associated with a poorer outcome in first episode psychosis (EPPIC, 2001).

Addington & Addington (2001) suggest that substances use should be addressed at the initial assessment on entry to the programme and throughout the programme. They further describe the way, where appropriate, substance abuse treatment should be addressed through all aspects of the early intervention service. This is from the individual case manager offering ongoing assessment and harm reduction strategies through to psychoeducation groups for the family and for the individual, addressing the problems associated with substance abuse and methods for changing this behaviour. Furthermore, they describe a group approach for stopping substance use for those who are still using substances one year into their treatment with the service. Unfortunately the impact of this speciality group on those who continue to use at the one-year mark is yet to be evaluated.

EPPIC (2001) Case Manager Handbook describes a brief intervention for individuals with first episode psychosis and "problematic" cannabis use. Heavy cannabis use is associated with relapse and continuing symptoms in a sub-group of individuals with psychosis and the rates of cannabis use among young people experiencing a first episode of psychosis are higher than in the general population of the same age. The handbook describes a ten-session one-on-one cognitive therapy undertaken by clinical psychologists based on psychoeducation about the effects of cannabis on psychosis and recovery, and motivational interviewing to obtain a commitment to change.

Kavanagh and colleagues (1998) describe a new intervention for the treatment of substance abuse in psychosis that facilitates reaching functional goals through a collaboration between therapists, participants and families. Substance Treatment Options in Psychosis (STOP) integrates pharmacological and psychological treatments for psychotic symptoms, with cognitive-behavioural approaches to substance abuse. STOP is tailored to participants' problems and abilities, and recognises that control of consumption and even engagement may take several attempts.

Summary

Alcohol and drug use lead to poorer outcomes in first episode psychosis and should be addressed in an integrated manner throughout the Early Intervention for Psychosis Service as described by Addington & Addington (2001), rather than dealt with by specialist Alcohol & Drug Services. Clinicians with substance misuse identification and treatment skills tailored to the specific needs of people with first episode psychosis are a key element of Early Intervention Services.

Services for Maori with first episode psychosis

Background

The aims of the present section are to provide an account of the special role that services for Maori plays in the management of Early Intervention for Psychosis. The available clinical guidelines from the Blueprint for Mental Health Services (MHC, 1998), Kawe Korero:

Guidelines for Communicating with Maori (MoH, 1999) and consensus from clinicians in the field, including Professor Mason Durie, (Professor of Maori Studies at Massey University), and Dr Suzanne Pitama (Christchurch School of Medicine) have been consulted to develop this section.

Services for Maori

Current needs of Maori within mental health services highlight the need for Maori clients to have the opportunity to access mainstream services, Kaupapa Maori services, or both of these. There is a need for services to be able to meet their needs and expectations through appropriate cultural competency. To work effectively with Maori it is necessary to know and understand the components that contribute to their wellbeing. This includes knowing how Maori cultural identity is defined and the values, beliefs, and behaviours which are part of that identity (Blueprint for Mental Health Services in New Zealand; MHC, 1998). The Blueprint lists a range of components that must be incorporated into all Mental Health Services to meet the needs of Maori, (see page 61; also 91-95)

Maori and first episode psychosis

Maori have a younger age profile than non-Maori. In the 1996 Census 23.6% of the total 0-14 years age group and 19.7% of those aged 15-17 identified as Maori (Ryan, 1998). This means an increasingly large proportion of people who are entering the high-risk age group for psychosis are Maori. In addition, Maori access mental health services at a far later stage of their illness, and consequently are more likely to be seriously ill by the time they present to a service. Maori are also more likely to be admitted into psychiatric institutions as a result of compulsory admission for assessment and treatment (MHC, 1998; page 62). Both delayed access to treatment (Norman & Malla, 2001) and trauma associated with first episode psychosis (McGorry et al., 1991) are risk factors for poor treatment outcomes.

> *"An important means of dealing more effectively with the high admission and re-admission rates is through the introduction of early intervention programmes and services… Early intervention through Community Mental Health Centres which are able to offer expert diagnostic services within an appropriate cultural context could have a significant impact on late and compulsory admission rates by developing more appropriate management plans"* (MHC, 1998; page 63).

Early intervention framework for Maori

Durie (2001) has proposed that there are three aspects of Early Intervention Services for Maori:

1. Access to early intervention services.
2. Key tasks of Early Intervention.
3. Outcomes.

1. Access to services

There must be *community endorsement* of mental health issues. That is; that Maori communities should have a low tolerance of poor mental health. At present Maori communities have a high tolerance of poor mental health. The point of community endorsement is that the community recognises that mental health problems exist, recognise that it is acceptable to do something about it, and has low tolerance of it. Where something can be done about mental illness, such as having an early intervention for psychosis service available, there is no advantage to having a high tolerance to mental health problems.

The other part of the access is the *cultural fit*. If a service is seen by the community as being culturally relevant and appropriate then it will be accessed. If the team is unable to provide services that promote a level of empowerment and comfortability, there is the risk that continued patterns of late acute admissions will continue. Maori must feel comfortable with the cultural processes that the service adopts and in is this way there is a cultural fit.

There must be an *alignment with the client*. This is not just a cultural fit but services that are appropriate for the age group. Mental health services are very badly aligned to Rangatahi (youth). Early intervention services are straddling youth services or adult services but not really aligned to the needs of the population early intervention services should be serving. Increasing the alignment will not just be a demographic alignment but also a language alignment as well.

Whanau participation. If whanau are not aligned with the service or are not part of the service then Maori will under-use it. The whanau can also be used for bench-marking; that is, the whanau is able to guide the service as to what is normal behaviour for the whanau.

2. Key tasks of Early Intervention Services

Therapeutic alliances

There is an increasing concern that people are dealt with by services rather than by people. What gets missed is the idea of a therapeutic alliance. Early on in the piece 'the team approach' doesn't always help that, unless within the team there is a process whereby there is one key worker who mentors and stays with the person and forms a relationship. It is hard to form a relationship with a 'service' or with a 'clinic'. Often, by default, you bond your primary alliance with the receptionist. The therapeutic alliance is a component that is under-estimated. Maori compliance is pretty low in most mental health services. This is partly a reflection of the youthfulness and high mobility rates, but also a reflection that there has been no bonding and there has been no alliance established with the worker early on. Instead the client may be trying to establish an alliance with the service itself.

The other alliance has to be with whanau. In an early intervention programme particularly, there must be the capacity to form an alliance with whanau.

There is the alliance with primary health workers, which is a critically important part of an early intervention service. A service that is not linked in with the other health services, particularly the primary health care sector, runs the risk of alienating the person or fragmenting health care. This is always the risk with specialist services. If you have a good relationship with the primary sector there is an educational component going in there as well so that processes are put in place whereby in the future entry to service is easier for the next person.

Therefore the therapeutic alliance is at the tangata whai ora level, the whanau level, and the primary health care level. Of all the therapeutic alliances, the one with the consumer is the most important and the one that is most often neglected.

Assessment

The notion of prodromal psychosis is not well understood and may be missed by primary health care providers such as General Practitioners. The areas where the greatest gains in Maori mental health can be made is the early identification of problems by General Practitioners, not just in the area of psychosis but for all mental disorders. The major problem at the moment is funding for General Practitioners. General Practitioners are funded for a ten minute consultation and if mental health issues are discussed it may possibly turn into a half-hour consultation.

Another difficulty with early intervention services for Maori is just how easy it is to actually miss the signs of first episode psychosis or to misinterpret the signs. That is; there are cultural differences in the presentation of symptoms. An example of the differences can be seen in depression.

In depression most people feel guilt, remorse and sadness. However, for Maori, feelings of guilt are not as pronounced as they would be for perhaps Pakeha culture. For the English, guilt is a sign that they would present to a General Practitioner regarding depression. In the United States unhappiness is something people cannot tolerate. If they are unhappy they will know that there is something wrong with them and that will take them to a Doctor. For Maori, unhappiness is more accepted within life. The idea of being a bit sad is not as novel for Maori as it is perhaps for Pakeha. What is novel is the lack of energy, the lack of appetite, and the knot in the stomach. This is the distinguishing characteristic of depression in Maori. While this is true in other people it is not given the same weighting. Different cultures emphasise different phenomena when it comes to presenting symptoms.

In the case of psychosis, perhaps the cultural overtone can be used to mask the symptoms. People react to the culture and explain it as a variance of a culture phenomenon. Signs of extreme aberrant behaviour may be seen in a cultural tone and overlooked at one end while on the other hand, one isolated phenomenon, such as an auditory hallucination can be described in itself as a major syndrome. For Maori, a hallucination may not in itself be an abnormal experience. Fortunately, with the DSM-IV-R description of psychosis, this particular instance does not happen as often.

Peoples responses to psychotic pathology can be varied, hence whoever is doing the initial assessment needs to have the skills to know what are cultural norms and culturally accepted behaviour. They must also have the skills to effectively communicate with whanau to understand what their bench-mark is (that is; what is ‘normal’ or acceptable behaviour). Therefore the initial assessment is an absolutely critical area.

Another example of potential cultural misunderstanding is the difficulty in distinguishing between tangential thinking and elusive thinking. For example on a marae, Maori may talk around a topic and leave you to draw your own conclusion so that a direct comment is to be avoided, especially if there is any controversy associated with the topic. The issue that must be considered is the difference between elusive thinking on one hand, which is highly prized, and tangential thinking, which may be an early sign of schizophrenia or psychosis. This requires someone with a very good understanding of Maori phenomenology to distinguish.

There is therefore a need for practitioners, whether they be Maori or not, to understand Maori phenomenology. At this stage there is a rather shallow interpretation of Maori phenomenology and it is virtually taken for granted that we understand what we mean by this. The idea is taken for granted and not necessarily explored. In both non-psychotic and psychotic conditions there is a high propensity to misread Maori signs. Without an understanding of the phenomenology, on one hand we may there is nothing wrong with this person, on the other hand we may infer there is too much wrong with this person, we can mistake a normal auditory experience with a hallucination, or mistake tangential thinking for elusive thinking.

Treatment

There must be a cultural-clinical interface.

The hui held in Gisborne in 2001 (Early Intervention in Psychosis National Training Forum Wananga) felt that there was not enough interface between cultural and clinical input to the treatment process. Not that one approach was right and one was wrong, but rather that there is a lack of synthesis between Maori and clinical approaches, it was one or the other rather than a smooth clinical interface. The cultural-clinical interface for Maori is a critical area and Maori Health Workers need to have a good knowledge of both. A lot of the Maori Health Workers have a limited understanding of the clinical dimensions of mental health issues (Mason Durie; personal communication; April 2002). If the appropriate services are to be available to Maori a substantial Maori presence (with the knowledge base and clinical skills adequate to meet the required standards) throughout the whole range of the professional workforce is necessary (MHC, 1998; page 65).

Consultation liaison

There is an urgent need for information to be accessible to Maori about the onset of mental illness, (MHC, 1998; page 65). 'Consultation liaison' regards being able to establish a liaison service so teams may deal less and less with clients and give more and more advice to others that are dealing with them, particularly people in the primary sector. Primary intervention programmes for Maori should not be aimed not only at general practitioners, but also at Maori community mental health workers. Maori often tend not to go and see a general practitioner if they have a mental health problem. Therefore it is the Maori community mental health workers who may be in the best position to offer help. That will require them to be mindful of the prodromal signs or early warning signs of psychosis and how to refer on to appropriate treatment services in a timely manner.

3. *Outcomes for Early Intervention Services*

Individual health gains

The key indicator of health gains is that the client is getting better, that's what it is all about (Mason Durie; personal communication; April 2002). The idea of a health service is not to teach kaupapa Maori as an end point. It might be an important part of getting somewhere but the end point is that your health is better. The idea of the Hua Oranga model (Kingi & Durie, 2000) is to measure outcome from a cultural perspective. What is being measured is a health outcome, not something that is really part of the process. If, as a result of psychiatric intervention the individual doesn't feel well then the intervention hasn't been very helpful. This should be defined within a holistic context (hence must be a combination of all facets of oneself – physical, spiritual, psychological, and the whanau must indicate a level of perceived success from the treatment). However, generally clinicians see the ablation of symptoms as the main outcome.

An assessment is an intervention and at the end of an assessment you should be able to demonstrate good outcomes. It is a critical part of the treatment. If the outcome of the assessment is able to highlight specific needs of the client then it has been successful. Each assessment should be inclusive of whanau to ensure validity and reliability in the assessment.

Whanau health gains

Outcome evaluation needs to demonstrate that as a result of the intervention, whanau has gained in some way. As a result of early intervention, whanau should have a better understanding of the situation. For some people this will mean moving closer to the patient, for others this may mean being much more distant; and this may actually be a good outcome. It may be a conceptual gain; that whanau know a bit about first episode psychosis. Perhaps there is another member of the family that they need to be worried about or other behaviour occurring in the family that they need to take action on. There is an educative process being implemented.

Without necessarily seeing it as whanau therapy (or family therapy), which is a different level of involvement, even in the brief encounter with the whanau at the time of initial assessment the whanau should be able to leave being able to demonstrate that they have made some gains. Perhaps a plan of action, that something has happened that they have contributed to, that they feel part of, and that they feel comfortable with. Whanau would be able to record that as a gain in their understanding of the situation. Part of Hua Oranga – Whanau assessment is assessing the relationship of the whanau with the client. It is recommended that this relationship be assessed after the initial assessment (Mason Durie; personal communication; April 2002).

Increased community awareness as an outcome

If early intervention is going to be successful, the benefits will be felt in other parts of mental health sector. One measure of the success of early intervention for psychosis will be whether there is a decrease in the number of committals for hospitalisation. If through a campaign of education about prodromal symptoms and symptoms of first episode psychosis, a lot more referrals do eventuate perhaps the role of early intervention for psychosis will move more from treatment to education/liaison with the primary health care sector. Early Intervention Services could function more in a consultation role, with General Practitioners and Maori Health Workers, as the primary health care sector starts to take up, not just the identification, but the management of people with first episode psychosis.

Conclusion

Within Early Intervention for Psychosis Services, Maori Health Workers must be recruited with the appropriate cultural and clinical skills. These workers must have cultural and clinical supervision and it is further recommended that, given the specific expertise and requirements of working with Maori in Early Intervention for Psychosis Services, steps are taken to develop closer networking between services for Maori Health Workers. In a lot of places in New Zealand we are creating the illusion that there is a Maori component to service when in fact the Maori component is sidelined and yet the service can say they have a strong cultural component and 'tick the box'. (Mason Durie; personal communication; April 2002.) In order to address this issue, the specific skills required to facilitate the clinical-cultural interface in first episode psychosis need to be developed. It is essential to get biculturalism right first before we can get anything right for other cultures.

The involvement of Maori is an essential element of Early Intervention for Psychosis Services in New Zealand. In accordance with the National Mental Health Sector Standards (MoH, 2001) the mental health service provides appropriate services to meet the needs of tangata whai ora, whanau, hapu and iwi. Accordingly, it is suggested that appropriately skilled Maori Health Workers be employed by Early Intervention for Psychosis Services at a ratio of approximately 1 FTE for every 15 Maori clients (assuming the Maori Health Worker is not being used in a generic case management role).

Services for Pacific People with first episode psychosis

The aims of the present section are to provide an account of the special role that services for Pacific People plays in the management of Early Intervention for Psychosis.

One in sixteen or 231,801 people in New Zealand were of Pacific ethnicity at the time of the 2001 Census (http://www.stats.govt.nz/). The National Mental Health Sector Standards (MoH, 2001) state:

> *"The mental health service delivers and facilitates appropriate services for Pacific people and recognises the fundamental importance of the bond between Pacific people*

> *receiving the service, their families, religious groups and the community"* (Standard 2; page 12).

Criteria 2.3 states that "the mental health service delivers and facilitates culturally safe services for Pacific people. With the informed consent of the person receiving the service, these services will include culturally accepted treatment options, which are inclusive of the person's family".

The New Zealand Early Intervention Guidance Note (MHC, 1999a) states that services for Pacific people should be provided in ways that meet their cultural needs. The service should acknowledge that mental well-being is dependent on spiritual, physical, emotional and family needs. Where possible a team member of the same culture should be included in the treatment team. If not, it is important that links with Pacific Health Workers are in place. Access to interpretation services for the individual and/or their family should be available.

More information on services for Pacific people is available in the Blueprint for Mental Health Services in New Zealand (MHC, 1998; page 68-72).

Services for other Cultures

The 2001 census counted more people of Asian ethnicity than Pacific peoples ethnicity. Almost 240,000 or 1 in 15 people were of Asian ethnicity (http://www.stats.govt.nz/). The Guidance Note (MHC, 1999a) states: "services to all people should recognise their cultural language, spiritual and family needs. There should be access to interpreters and cultural advisors whenever necessary". Standard 3 of the National Mental Health Sector Standards (MoH, 2001) states: "the mental health service delivers treatment and support in a manner that the person receiving the service, their family, whanau and community determines as being culturally safe".

A review of mental health status in refugee populations (Keyes, 2000) showed negative mental health status in the refugees sampled. Mental health outcomes included: posttraumatic stress disorder, depression, anxiety, psychosis, and dissociation. These issues must be integrated into the service development of Early Intervention for Psychosis Services as the number of refugees entering New Zealand increases.

It is important that treating staff appreciate that cultural perception can influence the way things are expressed. Staff shouldn't try to be an expert in every culture, but work closely with someone who is, if they happen to be out of their own culture (Mason Durie; personal communication; April 2002).

Psychological services for first episode psychosis

The aims of the present section are to provide an account of the role that psychological interventions play in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Background

In the past, psychology has taken a back seat in the treatment and research of psychotic disorders. This absence was based in the belief that biology contributes much to the aetiology of psychosis and that its primary treatment lied in the realm of medicine. The introduction of neuroleptic medication in the 1950's maintained this position, with psychology addressing problems resulting from schizophrenia, as opposed to directly treating the disorder itself (Haddock, 1998). These psychological interventions tended to be aimed at "modifying" the positive symptoms, minimising the impact of negative symptoms, or improving the life skills of the individuals suffering from schizophrenia (Slade, 1990).

Treatments offered by psychology in the past were based in the theoretical orientation of the time – primarily behavioural programmes followed by the inclusion of more cognitively oriented interventions (Haddock et al, 1998). These treatments have included operant conditioning programmes, systemic desensitisation, thought stopping, the use of distractive techniques, self monitoring, ear plug therapy, social skills training and coping enhancement therapy (Slade, 1990). Earlier efficacy studies tended to be single case study designs or based on the results of interventions with small groups, with few controlled trials. Results tended to be mixed and difficult to generalise beyond the population studied. This left psychology to stay in its role as an adjunct to the predominant treatment of medication.

Psychological input in first episode psychosis

In recent years clinicians and researchers have accepted the limitations of neuroleptic medication and there has been a renewed interest in complementary approaches to improve patient outcome (Haddock et al, 1998). This has led to a renewed interest in the psychologically based therapies for both specific problematic symptoms and the development of comprehensive programmes utilising psychologically oriented strategies. These comprehensive programmes use cognitive behavioural strategies to enhance engagement and treatment compliance, and to limit the psychosocial impact previously endured by people with psychosis. Although these programmes are reporting success, the research to date has not isolated the effective elements from the programme in terms of improvements overall or with regard to particular strategies for specific symptoms (Haddock, 1998).

Miller & Magruder (1999) presents encouraging evidence in relation to the cost effectiveness on psychotherapeutic approaches to the management of psychosis generally. A consistent research finding is that psychological interventions lead to improved satisfaction and treatment concordance which can contribute significantly to reduced rates of relapse, hospitalisation and unemployment. Although not fully substantiated, there is a prevailing view that the additional cost of psychological treatments are countered by decreased levels of other health service support or contact.

Cognitive research has provided understanding as to the processes underlying psychotic symptoms (Garety & Freeman, 1999) and the affective aspect of psychosis has been recognised as an important component in the formulation of an individual's presentation of the disorder (Chadwick, Birchwood, & Trower, 1996). Consistent findings indicate that individuals suffering from psychosis have abnormalities in: reasoning, emotional and attributional biases, data gathering styles, self-representations, and deficits in the theory of mind abilities (Fowler, 2000; Garrety and Freeman, 1999; Chadwick and Trower, 1996). This has led to an increased appreciation of the experience of the sufferer of psychosis and examination of the psychological aspects of psychosis (Bentall and Kinderman, 1999; Chadwick and Trower, 1996; Perris, 1999).

Further to this, the impact psychosis has on the individual from a psychological viewpoint has drawn greater attention to both co-morbid and secondary conditions (Fowler, 2000; Jackson, Edwards, Hulbert, & McGorry, 1999). The need to identify conditions that may have contributed to, or maintain, the symptoms of psychosis in order to formulate and determine treatment, has been stressed as an important, albeit complex, task in the overall treatment of psychosis (Jackson et al., 2001). In addition, various symptoms may present after the onset of psychosis and need to be addressed to maximise compliance and prevent relapse. Secondary and co-morbid conditions identified as frequent companions to psychosis, include various forms of anxiety, depression, trauma-related phenomena, alcohol and drug abuse and personality dysfunction (Jackson et al., 2001).

Psychology in early intervention for psychosis takes a dual role in terms of assessment and treatment:

1. *Assessment*

The clinical psychologist has been trained in the task of case formulation and has the background to draw on a range of theoretical models to help explain the complexity of an individual's presenting symptoms. Psychological assessment, based in a theoretical basis such as abductive reasoning (Ward & Haig, 1997), provides the clinical psychologist with a formal method to reason about the nature of the presenting phenomena. In doing this, an assessment at this depth can identify the key issues needing to be addressed in therapy, and in what form the individual may best respond to the intervention. The clinical and analytical skills required for formulation can also be called upon to provide assistance with those cases that fail to respond to standard interventions.

2. *Treatment*

Psychologically therapy based treatment models have been identified as having potential in the area of psychosis (Cormac, Jones, & Campbell, 2002). Several studies suggest CBT assists in recovery from acute psychosis in terms of improvement and time to recovery (Drury, Birchwood, & Cochrane, 2000). Although CBT based interventions in the treatment of positive symptoms are continuing to gather evidence of efficacy, the use of CBT in many of the secondary and co-morbid conditions has been well established over the years (Barlow, 1993). In addition to CBT, psychologically based therapies such as cognitive remediation are under evaluation (Davidson & McGlashan, 1997) and may add a further dimension to the role of psychology in the future.

Summary

'Early Intervention for Psychosis teams must be able to offer people a range of psychological therapies and education' New Zealand Guidance Note (MHC, 1999a).

Guideline 6 from the Australian Clinical Guidelines (NEPP, 1998) states: "Psychological interventions are provided as part of the acute phase and ongoing management of recovery from psychosis". The Australian Guideline suggests the goals of cognitive behavioural therapy in early psychosis are:

- to form a therapeutic alliance with the client;
- to effect clinical stabilisation;
- to provide education about the nature of the symptoms;
- record negative or distressing thoughts and their context;
- become more conscious of thoughts and assumptions;
- learn alternative strategies to deal with stressful situations;
- to promote adaptation and recovery;
- to protect and enhance self-esteem;
- to focus upon stigma issues and develop effective coping strategies; and
- to utilise cognitive strategies to prevent and reduce secondary morbidity and comorbidity.

Psychological services should be seen as a key essential element of Early Intervention for Psychosis Services. Clinical Psychologist FTE to caseload ratio should be approximately 1:50 (not including generic case management role) for clinically appropriate care of first episode psychosis.

Group Work

The aims of the present section are to provide an account of the role that group work plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

The efficacy studies and general literature on group work for first episode psychosis are extremely limited. Group work is also discussed in the sections on 'Psychoeducation' and 'Family Interventions'. The following is paraphrased from Francey (1999) in order to provide an account of the group philosophy at EPPIC.

Group programmes for first episode psychosis

Young people recovering from a first episode of psychosis represent a special population with particular needs. The experience of EPPIC with this group suggests that group programmes may be especially helpful. Francey (1999) suggests that the particular needs and goals that seem to be addressed through this group-based intervention include:

- the rebuilding of social networks,
- the establishment of peer group;
- the regaining of confidence for social interaction;
- goal setting and activity scheduling;
- learning about psychosis;
- building life skills and confidence;
- fostering independence; and
- interacting with people who are further along in their recovery and thus provide inspiration and hope for the future.

The downside of group work is the negative behaviours and attitudes that can be learnt from other group members, this must be recognised. For example, unless only clients who are committed to reducing drug use are involved in substance misuse groups, they can become a source of information exchange regarding drug supplies etc.

In order to illustrate the types of groups that may be beneficial in first episode psychosis, the work of EPPIC in this area is described below (Francey, 1999).

Group programmes offered at EPPIC are divided into five categories or streams which relate to the perceived needs of recovering young people, the factors thought to facilitate recovery and a particular challenges faced for the adolescent or young adult with early psychosis:

1. The social recreational stream. This stream focuses on providing enjoyable social activities to maintain and develop social skills and networks and to encourage access to community activities and resources.

2. A vocational stream. It is felt that after a period of illness many people have lost their vocational path and need help to develop confidence in their ability to be active and productive. The vocational stream focuses on minimising the loss of work and study skills, encouraging the development of pre-vocational skills and establishing realistic vocational plans based on knowledge of the available options and recognition of interests, skills and values.
3. The creative expression stream. The creative expression stream utilises a range of media through which participants can express their creativity and enhance their self-esteem.
4. Health promotions stream. The health promotion stream focuses on broad issues of physical and mental health with a particular emphasis on those issues pertinent to the age of the population such as sexuality, physical fitness, and nutrition. It also includes a stress management group.
5. Personal skills development stream. The personal skills development stream focuses on the development of a range of skills and strategies which enhances the person ability to integrate the experience of psychosis, to cope with everyday life, and to achieve optimum potential. The stream includes a standard psycho-education programme.

In addition, specific ‘focus groups’ have been developed to address particular needs identified for sub-groups of EPPIC clients. In a naturalistic study of the effectiveness of the day programme, thirty-four day programme participants were compared to 61other EPPIC clients. Francey (1999) found that, on average, day programme participants had poorer scores on the Premorbid Adjustment Scale (PAS) (Cannon-Spoor, Potkin, & Wyatt, 1982), compared to those that did not attend the day programmes. At six-month follow-up no significant differences were detected between the two groups on any symptom measure including the Quality of Life Scale (Heinrichs, 1984), which assesses roughly similar domains to the PAS. Francey (1999) concludes that although the day programme participants entered the programme with a lower level of psychosocial adjustment, it is possible that their participation has allowed them to achieve further development, which is a specifically identified goal of the day programme. This preliminary outcome data suggests that this day programme treatment modality may be an important component in an overall comprehensive service aimed at facilitating recovery from first episode psychosis (see also Albiston, 1998).

Examples of group programmes provided by New Zealand Early Intervention Services include family support groups, family education groups, client psychoeducation groups, combined client and family psychoeducation groups (“multifamily groups” (McFarlane, 1994)), recreation groups, and a philosophy group. An interest has been expressed by several units in the development of vocational rehabilitation groups such as the Cognitively Orientated Skills Training (COST) Group offered by Ashok Malla and colleagues in Canada (http://www.pepp.ca/treat1.html). Alcohol and drug treatment groups and anxiety groups have been trialled with varying levels of success.

Summary

Many clients recovering from a psychotic episode benefit from group work. Staff need to have expertise in group development and facilitation, also group support can be run by peers. (MHC, 1999a). Guideline Nine from the Australian Clinical Guidelines (NEPP, 1998) notes a comprehensive range of group programmes specifically tailored to the needs of people with early psychosis should be available.

Group programmes can play a preventative role in improving recovery levels and preventing a decline in psychosocial functioning in vulnerable sub-groups, (Albiston, 1998). Where the resources of specific early intervention team are not sufficient to provide group work, group work that it is offered from outside organisations should be consistent with the principals of early intervention. Facilitators of the group should be familiar with the aims and rationale of early intervention, and the special needs of people with first episode psychosis (MHC, 1999a).

A particular problem with group work in New Zealand Early Intervention for Psychosis Services is associated with the low numbers of clients in many areas. For example, low rates of referrals make it difficult to obtain enough clients to run a psychoeducation group for clients early in treatment. Further, the needs of clients may change over time as the demographic profile of the service changes. Resources should be made available to provide group work *as required* in Early Intervention for Psychosis Services in New Zealand as group work can have a significant impact on people with first episode psychosis.

Vocational issues

The aims of the present section are to provide an account of the role that the identification and facilitation of vocational issues plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Conventional thinking on vocation and schizophrenia suggests that ‘sheltered employment’ may be the best approach in order to reduce stress and prevent relapse. In more general schizophrenia populations, McFarlane and colleagues (2000) found no evidence that competitive work presented a significant risk for relapse. This approach of guiding clients to competitive work, where appropriate, can also be used for people with first episode psychosis.

While accessing welfare benefit systems can be helpful in early stages, it is essential to encourage steps towards a meaningful vocation. Valued and, where possible, paid employment is a vital part of client’s care and provides a major source of self-esteem, social contact and money. Social roles and goals are extremely important in first episode psychosis (Spencer et al., 2001). The longer the individual remains out of work in the early phase of psychosis, the harder it becomes to gain employment later on (http://www.iris-initiative.org.uk/guidelinen7.htm). In an Australian survey of people living with a psychotic illness, 72% were unemployed (Jablensky et al., 1999). An important task for the young person following a psychotic disorder is the redefinition of self in relation to the disorder and the development of valued social and vocational roles (Parlato, Lloyd, & Bassett, 1999).

While little research has been conducted on the vocational issues of people with first episode psychosis, Bassett, Lloyd, & Bassett (2001) discuss the significant barriers to both gaining and maintaining employment for young people with psychosis. The themes identified in this study include:

- loss e.g. of youth and relationships;
- low self-confidence and self-esteem;
- stigma;
- the need for support; and
- difficulties in identifying and achieving goals.

Parlato and colleagues (1999) describe an early psychosis intervention programme, known as the Young Occupations Unlimited programme, which aims to promote health and wellbeing by encouraging participation in a variety of self-chosen and self-satisfying occupations.

Guideline 7 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states: “A strategy to facilitate clients’ pathway to work and valued occupation should be developed during the critical period”. The New Zealand Guidance Note (MHC, 1999a) suggests that “disruption of education and/or work is common for most people after their first episode of psychosis. It is important to keep disruption to a minimum and maintain good liaison with work and teaching institutions. People need to be assessed for realistic work and occupational aspirations. This may involve psychological and occupational therapy assessment and early use of appropriate work assessment, support and placement services both within and outside the mental health service”.

Early Intervention for Psychosis Services should consider assisting and supporting clients in returning to work/study, in liaison with appropriate agencies, as a key element of service and clinical staff should be skilled in the guidance of first episode psychosis clients towards maximising their vocational potential.

Initial assessment

The aims of the present section are to provide an account of the role that the initial assessment plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Standard Fifteen of the New Zealand Mental Health Sector Standards (MoH, 2001) states: “Treatment and support of each person who receives the service is based on a comprehensive assessment that is completed by a health team with appropriate knowledge and skills”. The New Zealand Guidance Note (MHC, 1999a) states that the initial assessment should be community based and where possible conducted at a convenient and safe place for the person and their family. A comprehensive biopsychosocial assessment should be provided and recorded including a mental state examination, drug and alcohol history of use, medical history, personal history and family history. Where indicated this should include a cultural assessment (refer Cultural Assessment Processes for Maori: Guidance for Mainstream Mental Health Services; MHC, 2001). Attention should be paid to safety and the risks of suicide, violence and victimisation need to be assessed.

This assessment should also comprise a physical examination, particularly a neurological examination and appropriate investigations to rule out other physical illness or organic causes of psychosis. Wherever possible, family and others close to the person should be involved in the assessment, and, if not, should be contacted as soon as possible. The initial assessment should also provide the opportunity to develop a good relationship with the person and their family or carer. Appropriately qualified and experienced mental health professional should conduct assessments (MHC, 1999a). The initial assessment is a particularly important phase of early intervention for psychosis. This is particularly so for Maori who may not be seen again after this initial assessment if it was not appropriate. (Mason Durie; personal communication; April 2002).

Power & McGorry (1999) describe essential features of the initial assessment in first episode psychosis, and conclude that it provides the essential basis upon which initial management of early psychosis can be structured (see also Edwards & McGorry, 2002).

Assessment procedures for clients experiencing first-episode psychosis should incorporate strategies to promote engagement (Kulkarni & Power, 1999). The establishment of good therapeutic relationship in clients detected before their psychosocial breakdown is complete should lead to greater compliance with medications and therefore improved outcomes. Optimal assessment and engagement provides a strong foundation for optimal treatment experiences and more complete recovery (Power & McGorry, 1999). The initial assessment is one of the most critical component of treatment, if you do not get this part right, then the rest of treatment will not be right (Mason Durie; personal communication; April 2002). The New Zealand Guidance Note (MHC, 1999a) suggests that "the recovery process for people presenting with first episode psychosis needs to begin with the first person they come into contact with from the mental health service". It is therefore a key essential element of Early Intervention for Psychosis Services that appropriately qualified and experienced mental health professionals conduct comprehensive initial assessments.

Consumer participation

The aims of the present section are to provide an account of the role that consumer participation plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

Consumer participation is a core element of all mental health services. The New Zealand National Mental Health Sector Standard 9 (MoH, 2001) states that Consumers are involved in the planning, implementation and evaluation at every level of the mental health service to ensure services are responsive to the needs of individuals (page 24).

The New Zealand Guidance Note (MHC, 1999a) states that all early psychosis services need to use Consumer expertise and advice. Consumers can be ideal for offering people using the service individual peer support, recovery education and support groups. It is important that consumers involved have had experience in psychosis and reflected the age and cultures of those who use the services. Most importantly the service providers need to work in partnership with the individuals using the service. They must always be treated with respect and given hope for the future. Their insights, aspirations and opinions must be given the highest consideration and incorporated into their treatment and support plans. Their experience of using the service must be sort and fed into planning and quality improvement processes.

Kent & Read (1998) looked at the attitudes of New Zealand mental health workers towards consumer participation in the planning, management and evaluation of mental health services results indicated that while most professionals view the concept positively, progress may be occurring faster at the level of individual treatment than at the organisational level.

Leavey, King, Cole, Hoar, & Johnson-Sabine (1997) conducted a patients' and relatives' satisfaction with services survey in first episode psychosis and concluded that 'For improved care in the community patients and their relatives need to be seen as partners in care rather than as passive recipients'.

EPPIC has recently initiated a consumer involvement programme. 'The Platform Project' was developed due to a lack of consumer participation at EPPIC. The aim of The Platform Project is to enable young people who attend or have attended the service to participate in service delivery and planning at EPPIC. Two ex-clients were involved in developing a survey and then utilising that survey as a tool to consult with clients at the service. From this report, they developed strategies to address the needs of clients and the 'gaps' that were identified in the report (Sarah

Spurr; personal communication; April, 2002). New strategies introduced as a result of this process include:

- Waiting room facelift including installation of computer for internet use (information tool).
- ‘User guide’ for clients at MH SKY.
- The Platform Team – a group of young people (ex-clients and current clients) that meet on a regular basis to discuss, debate and make recommendations on service development issues.

Any provision for consumer involvement and the development of an early psychosis service needs to recognise that carers and consumers in early psychosis have a different perspective on the issues surrounding psychiatric illness from those experiencing chronic illness. Therefore their role needs to reflect these differences rather than following a standard model of consumer participation. Many individuals who experience early psychosis are relatively brief users of the service and may not find the adoption of a consumer-participation role relevant or meaningful. Others may find themselves struggling to cope with the whole experience of the illness and its treatment and consequently may find it difficult to contribute to consumer input into the service. Nevertheless it is essential to ensure that there is a strong consumer influence on the service since this maximises respect for consumers and carers and enhances the ambience and quality of care (McGorry et al., 1999).

The IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/guidelinen3.htm) suggest that the client’s expressed needs should be given priority in the formulation of an intervention plan in first episode psychosis.

Consumer involvement is a key essential element of Early Intervention for Psychosis Services, and consumers should be involved in the planning, implementation and evaluation at every level of Early Intervention for psychosis to ensure services are responsive to the needs of individuals. Resources should be made available to reimburse consumers for this active involvement in consumer groups and as advisors.

Treatment is received in the most open, safe and familiar environment possible

The aims of the present section are to provide an account of the special role that the treatment setting plays in the management of Early Intervention for Psychosis. The available evidence from studies in first episode psychosis have been supplemented by the more general literature, available clinical guidelines in first episode psychosis, and consensus from clinicians in the field.

The New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) states that “decisions regarding treatment settings should be based on the level of severity, of presentation, and the assessed level of risk. The optimal treatment setting is considered to be the person’s home where circumstances support this. When determining the treatment setting minimisation of trauma should be utmost in the minds of the treatment team”.

Guideline 10 of the Australian Clinical Guideline for Early Psychosis (NEPP, 1998) states that “the clients will receive treatment in the least restrictive manner wherever possible”. The Guideline further states that the choice of treatment setting is a very important component in the overall management of people with first episode psychosis. Fitzgerald & Kulkarni (1998) describe the Home Oriented Management of Early psychosis (HOMES) Programme. This study indicated that the acute management of first episode psychosis outside hospital is a feasible alternative to inpatient care. They found that twenty-two out of thirty-one people in their pilot study were managed without the necessity for hospital admission. The level of social support and duration of untreated psychosis prior to treatment may be the most closely related indicators of home-based treatment success, while results were found to be independent of the degree of illness severity.

Wasylenki, Gehrs, Goering, & Toner (1997) found attitudes towards home treatment for acute psychosis were positive, symptoms were reduced, family burden decreased, satisfaction was high and home treatment was preferred to hospital admission. Economic data also indicated that home treatment is less costly than hospitalisation.

The Australian Clinical Guidelines (NEPP, 1998) state that “minimisation of trauma to the client and their family should be uppermost in the minds of mental health professionals in determining the treatment setting for each individual”. Dislocation from the usual environment may be detrimental to the client and hinder their recovery. McGorry (1991) found high levels of PTSD following hospitalisation for an acute psychotic episode. It is therefore beneficial to reduce the exposure of people with first episode psychosis to the adverse experiences associated with acute psychiatric wards. Studies of alternatives to hospital admission show that approximately 80% of crisis management can be provided in locations other than psychiatric hospital (Scott & Dixon, 1995). The capacity to take skilled nurses into a range of community settings can create a supportive, safe and therapeutic environment that may match the best inpatient units (Falloon et al., 1998).

A core element of Early Intervention for Psychosis Services is the ability to provide care aimed at supporting people in their own environment throughout all phases of the disorder, using existing community resources wherever possible. However, it should be noted that most New Zealand Early Intervention services are outpatient services. Whilst they can deal with a lot of the individuals’ needs at home, they are not resourced for ‘nursing at home’ services. Where hospitalisation is required, the case manager should be involved with all aspects of the person’s in-patient care.

These findings are consistent with the New Zealand National Mental Health Sector Standard (MoH, 2001) Number 16, ‘Quality Treatment and Support Criteria’ 16.1 states: “The mental health service provides the least restrictive and least intrusive treatment and/or support possible to each person who receives the service”.

In order to provide the least restrictive and least intrusive treatment, Early Intervention for Psychosis Services must be funded adequately to allow case managers, and other treating staff to travel to the environment of the client’s choice. It is a key essential element of Early Intervention for Psychosis Services that resources are available to provide care in the most open, safe and familiar environment possible.

Respite care

The innovation of respite care has added to the service mix for people with first episode psychosis. The objectives of respite care are to:

- Enable families or primary caregivers to rest, attend to personal needs or participate in outside activities. Caradoc-Davies & Harvey (1995) found caregiver stress levels did not change, but there was a highly significant improvement in their mental health after a 'social relief' admission for their family member.

- To provide in the short-term, a safe environment and quality care for the person with first episode psychosis as an alternative to hospitalisation.

Geiser, Hoche, & King (1988) present preliminary one-year data for 14 patients showing that with participation in a respite program, subsequent hospital days are significantly decreased. Subjective data indicate that respite care helps stabilise improvements patients made in the hospital, allows staff to work with family systems in a non-adversarial manner, and gives the family needed relief from difficult behaviours.

The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that “Residential services for children and young people whose therapeutic needs require that they have a break from their normal living situation. Includes both planned and crisis respite” (page 44). *Planned* respite involves alternative care and support services to provide relief for family and care givers or prevention of relapse where current living arrangements are deemed to be contributing to a deterioration and a short-term alternative may be preventative (page 39).

From consultation with various Early Intervention for Psychosis Services, access to both planned and crisis respite care is considered to be a key essential element in the optimal management of first episode psychosis. While generally not provided *by* Early Intervention for Psychosis Services, those providing respite must be educated on the principles of Early Intervention for Psychosis and supported by the client’s key worker/treatment team.

Other key elements in Early Intervention for Psychosis

This section has presented a comprehensive review of the core essential elements of Early Intervention for Psychosis Services, however there are a number of issues that need to be given brief consideration. Most of these are issues that have been covered in the preceding sections, although not possibly explicitly stated as key elements. It is important to note that just because less is mentioned about these aspects, the authors do not consider them to be any less important than the other elements detailed above.

For example, *monitoring of risk of suicide* is perhaps the most important aspect of a first episode psychosis service. It is not mentioned in detail in this report, as it is part of good generic mental health practice. It has been estimated that 10% of individuals with psychosis die by suicide, thus making it the most common cause of death for this population (De Hert et al., 2001). The risk of suicide is extremely high in those presenting with first episode psychosis (McGorry, Henry, & Power, 1998), and staff should be skilled in recognition and management of suicidal ideation. In the same fashion, general accommodation and financial issues are not covered in this document. These more generic issues, while needing to be addressed from the unique perspective of the needs of the individual with first episode psychosis, are discussed elsewhere (EPPIC, 2001; MHC, 1999; MoH, 2001).

Research and evaluation

The issue of research and evaluation will be discussed in detail in the following sections.

The Australian Clinical Guidelines for Early Psychosis (NEPP, 1998) suggest:

- Clinical practice guidelines should provide the basis for the development of measurement indicators of service provision.
- Measurement indicators should relate to the different phases of case management.

- Evaluation of Early Psychosis services should focus on process issues as well as outcome issues.
- All measurement indicators developed for the purposes of evaluation and quality assurance should be clearly documented.

All measurement indicators developed for evaluation should be reviewed on a regular basis for their accuracy and applicability to service delivery.

"It appears that early intervention into psychosis can significantly reduce the recurrence rate and severity of the illness, however this is not proven. People working in this area need to have policies and systems for evaluating their methods and need to be supported when they seek to change current practises to provide a better service… ongoing research should therefore be an integral part of any treatment team" (MHC, 1999a).

Competent team leadership

For Early Intervention for Psychosis Services to survive and operate effectively they must have someone with managerial and budgetary skills to advocate for the service. The team leader must have budgetary control and be involved in resource negotiation. The team must not just be handed a budget, but advocate for appropriate funding and resources with the knowledge of *why* the resources are needed. In a country where funding is rationed and there is a prioritising of public health expenditure (Wilson, 2000), the survival of specialist teams such as Early Intervention for Psychosis Services must be justified and protected.

Physical health

Physical health issues are often neglected in mental health consumers (Dixon, Postrado, Delahanty, Fischer, & Lehman, 1999). Within Early Intervention for Psychosis generally there needs to be a close association fostered with General Practitioner's. The issue of physical health is one avenue by which this relationship might be better developed. Of the many physical health issues that are associated with first episode psychosis, most notably weight gain may be a significant issue for people with first episode psychosis (Bryden, Carrey, & Kutcher, 2001). It is a particularly troubling side effect of antipsychotic medication for the following reasons:

- The physical health implications of obesity.
- Weight gain can have a major effect on compliance to treatment (Fleischhacker, Meise, Gunther, & Kurz, 1994).
- The *additional* stigma associated with weight gain in this population.

It is recommended that a dietician, who is familiar with the principles of Early Intervention for Psychosis be involved with any Early Intervention service.

Social support

Guideline 7 of the IRIS Clinical Guidelines (http://www.iris-initiative.org.uk/) states: "Family and *friends* should be actively involved in the engagement, assessment, treatment and recovery process". Social support is a vital component of recovery from first episode psychosis. New Zealand Guidance Note (MHC, 1999a) states that "a key element of psychosis can be social isolation and specific training is required to overcome this". In an Australian survey of people living with a psychotic illness, 57.6% were 'socially withdrawn', and 84% were single divorced or separated (Jablensky et al., 1999). The stress-vulnerability model proposes an important protective role for personal and environmental factors, such as social support, in mediating non-specific stress (Falloon & Fadden, 1993).

Stress management

Although the role of stress management has briefly been mentioned within the context of family interventions for first episode psychosis (D. Linszen et al., 1998), and relapse prevention (Birchwood & Spencer, 2001), it is a key element of Early Intervention for Psychosis. The stress-vulnerability model (Zubin & Spring, 1977) makes explicit the role of stress in the development and exacerbation of first episode psychosis. The interaction of the level of vulnerability, level of stress and the extent of protective factors such as the individual's coping skills will determine the onset and severity of first episode psychosis and further relapses (I. R. Falloon et al., 1996). Therefore, stress management for the client and their family should be an integral part, and key essential element, of Early Intervention for Psychosis Services (see Falloon et al., 1998).

On-going staff education and support

In addition to the skills already listed, team members need to be fully conversant with the early psychosis model and rationale for early intervention. This means keeping up to date with current literature and being aware of different approaches (MHC, 1999).

An extremely important element is the support for the concept of Early Intervention for Psychosis Services from management, legislators, the community, the primary health care sector, and other mental heal services. Early Intervention for Psychosis Services cannot operate in a 'vacuum' and rely on support from outside the service to function. This support will partially be generated by showing that Early Intervention for Psychosis Services are a valuable investment of scarce health dollars. Not only by proving to be cost-effective in the long run, but also by improving the quality of life for consumers, whanau and the community.

Understand the needs of the client and family/whanau

While there are a large number of core elements outlined in this document, it is the needs of the client that must be the focus of care. It is important not to offer unnecessary treatment to people with first episode psychosis. For example, the individual may be able to find a job *without* the help of a supported employment programme and/or case manager help. Unnecessary treatment may inadvertently create disability, for example the thought that 'I can't find a job on my own'. Providing more intensive services than needed or providing services longer than needed is inefficient and may even impede consumer recovery (Sherman & Ryan, 1998).

A good key worker is there to "stand beside the person with first episode psychosis " not lead them.

Conclusion and summary of key elements

A primary barrier to implementation of best practice for Early Intervention for Psychosis in New Zealand will be resource constraints that impede most innovative community care initiatives, even when demonstrated to be more cost-effective than traditional hospital-based approaches (Allen & Read, 1997). The core elements of early intervention for psychosis will be constrained by money and the demographic requirements in which the service is based. For example, the number of first episode psychosis cases seen in the area in which the service is based. The South Canterbury District Health Board has two identified first episode psychosis clients in its region.

While depending on the age structure of the particular population a rough rule of thumb would be to expect twenty-five new cases of psychosis per hundred thousand population per year. Once an estimate of numbers is obtained the specific needs of the first episode clients and the local setting needs to be clarified. An example of the setting can be seen in New Zealand's demography. While guidelines state that caseloads of 10-15 are optimal for Early Intervention for Psychosis Services (e.g. New Zealand Guidance Note; MHC, 1999a), low caseloads must be seen in the context of the geographical situation. If the caseload is spread over a large geographical area, adequate assertive outreach will not be possible, even with caseloads as low as ten.

Given these caveats, the following is a brief summary of the key effective elements of an Early Intervention for Psychosis Service:

- adequate training in Early Intervention practice and rationale for staff – especially case managers and medical staff;
- thorough assessment including cultural and involving client and family – with identification of co-morbidity;
- identification of needs and effective management planning involving client and family;
- psychoeducation and support for the family;
- psychoeducation for the client;
- access to appropriate low dose atypical medication;
- relapse prevention strategies including early warning signs;
- treatment of co-morbidity – especially substance abuse;
- a strategy for early detection of first episode psychosis;
- provide services within a context that is culturally appropriate and safe;
- services should be funded to assist clients *through* the 'critical period', rather than an arbitrary time period such as two years;
- the service must actively seek those who may be experiencing psychosis in an endeavour to reduce the duration of untreated psychosis;
- undertake research to evaluate the effectiveness of Early Intervention in Psychosis programmes.

The IEPA draft consensus statement on principals and practice in early psychosis (Edwards & McGorry, 2002; page 154) states that:

> *"it is essential that high quality and intensive biopsychosocial care is provided continuously and assertively during the critical years after the onset psychosis…Patients should remain in comprehensive, multidisciplinary, specialist mental health care throughout the early years of psychotic illness and not be discharged or transferred without continuing specialist involvement. However, partnerships can be established between a specialist centre, primary care and other agencies that can contribute to optimal care. First-episode psychosis is difficult to treat well, confers high levels of risk, and is the phase with the potential for greatest cost-effectiveness of treatment. To treat in a reactive manner is less effective and misses the best opportunity for enhancing outcomes and quality of life for patients and families".*

Given the limited funds available to mental health services in New Zealand generally, there is a need to prioritise what services are funded. Early Intervention for Psychosis Services should be encouraged, as they provide effective care for first episode psychosis (Larsen et al., 2001) and arguments for not providing treatment early are morally indefensible. However, services must be efficient. Additional elements of service must be guided by research and evaluation, rather than driven by pressure groups. In order to decide what to prioritise there is a need to use quasi-experimental designs to evaluate treatments, rather than including approaches 'because they are a good idea'.

Part 5 Outcome Evaluation in Early Intervention for Psychosis

Background

The preceding section has outlined the core essential elements of Early Intervention for Psychosis Services. Having outlined the core elements can also provide a checklist for a service to claim to offer '*early intervention* for psychosis'. The aim of the present section is to outline a template for future service evaluation that may *practically* be used by Early Intervention for Psychosis Services. Specifically this section will address:

1. Issues relating to why evaluations are required.
2. Limitations and problems associated with evaluating Early Intervention for Psychosis Services.
3. What factors are important when evaluating a service.
4. A description of how the evaluation will be structured.
5. A description of the outcome measures that should be administered to first episode psychosis clients.
6. Indicators for evaluation of Early Intervention *services*.
7. A description of additional measures that *should* be administered but would be unrealistic to include in most services.
8. Requirements for ethics approval.
9. Practicalities of introducing service evaluation to Early Intervention for Psychosis Services.
10. The outline of a suggested process for implementing service evaluation into Early Intervention for Psychosis Services.

Why evaluate Early Intervention for Psychosis Services

Services cannot know if they are operating effectively unless they can systematically measure improvements in the health of the people who use the services. In the absence of measuring outcomes, it is difficult to determine whether funds are being spent in the most effective way (MHC, 1998). Information on outcome will be of considerable value to Early Intervention services and administrators at local and national levels. Treatment outcome studies, although difficult to design and carry out, are essential in demonstrating the efficacy of psychiatric treatment, rationalising clinical decision making, and encouraging public support for the availability of appropriate, cost-effective care for the mentally ill (Mirin & Namerow, 1991).

Effectiveness of services should be measured in a variety of ways, including client outcomes (such as quality of life, recovery), wider community measures (such as social outcomes for whanau) and service system measures (such as service utilisation and cost-effectiveness). The bottom line in evaluating any programme is how well clients do. How care effects informal caregivers and the community are also important factors (Mechanic, 1996). In the short term Early Intervention for Psychosis Services provide good results and clients and families like this type of treatment better than standard community treatment.

The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that "It is recommended that contracts for the provision of services have evaluation of the service included as an explicit requirement." (page 81). It is essential to demonstrate that Early Intervention for psychosis offered by health services in New Zealand are effective in producing improved outcomes for consumers and their families compared to standard care.

Limitations and problems associated with evaluating Early Intervention for Psychosis Services

In order to really show that Early Intervention for Psychosis Services are effective, the Early Intervention service must be compared with a control group. This may be just to show that Early Intervention is better than standard interventions. The type of longitudinal naturalistic outcome measures outlined in this section can only ever show if Early Intervention does or does not make a *difference*. This becomes problematic in the context of evaluating *change* scores for someone who has not changed during their time with the Early Intervention service, but may well have deteriorated without the help of a specialised service. There is no way of looking at whether Early Intervention for Psychosis Services prevent people from getting worse without a control group. Other problematic issues related to evaluating Early Intervention for Psychosis Services will be discussed below, including:

- allocation of adequate resources to undertake evaluations;
- staff commitment to undertaking evaluations;
- meaningfully using the data obtained.

Without clinicians being 'on-board' with the need to collect the information, excuses will be found for it not to be done. This does not mean appeals to 'the need for evidence-based practice' from a political/administration perspective, but rather an emphasise on the practical use of evaluations and additional funding/resources to enable evaluations to be conducted.

The following comment on evaluation of Early Intervention for Psychosis Services in clinical settings puts the present task in context:[8]

> *"I am afraid you have been asked to do an impossible task, i.e. do research in clinical settings without research instruments and research resources. After 30 years in this business as both a clinician and a clinical researcher I know through repeated experience that the two traditions cannot be integrated with the strategies you outlined. You need to go back to whomever gave you this charge with the news that decent research cannot be done without extended assessment forms and training and that you cannot ever expect clinicians to do research. Sorry to be the bearer of bad news but you don't need to come to the same conclusion yourself after a long period of frustrating experience"* (T.H McGlashan; personal communication; January 2000).

The experience gained from initiating evaluation measures into a clinical Early Intervention for Psychosis Service will be discussed below. In short, it is not possible to develop an evaluation process in a clinical team without adequate additional resources.

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[8] The comment was provided by Thomas McGlashan, Executive Director Yale Psychiatric Institute and Professor of Psychiatry at Yale University School of Medicine to Mark Turner when asking about 'what short measures to use at Totara House'.

What factors are important when evaluating a service

Improvement in a large number of areas is relevant to early psychosis intervention, including psychotic symptoms, depression and anxiety symptoms, quality of life, and substance use. However, in New Zealand clinical settings the routine administration of comprehensive measures of multiple aspects of recovery from first episode psychosis is impractical. Therefore, a minimum number of key aspects of recovery have been identified that can practically be used by New Zealand Early Intervention for Psychosis Services.

In order to decide what outcomes to evaluate, it is important to first understand what Early Intervention for Psychosis Services are trying to achieve. Outcome measures should reflect the objectives of the service. In the case of early intervention for psychosis in New Zealand, the aims are defined on page 6 of the Guidance Note (MHC, 1999a) and include:

- to reduce the delay between onset of early psychosis and accessing expert assessment and treatment by developing clear strategies to identify and overcome barriers and improve access to care, this should include particular attention to problems of access faced by Maori and other cultural groups;
- to raise community awareness of the signs of early psychosis, of the existence of a service to assess and treat early psychosis, and how to access this service;
- to minimise the stress and trauma of illness and treatment for people with psychosis and their families;
- to maximise people's chances of recovery and a good quality of life;
- to reduce secondary mental health problems (e.g. depression, anxiety disorders, post-traumatic stress disorder, substance abuse) and actively treat these when they occur;
- to deliver services that are culturally safe for Maori, Pacific Peoples and other cultures;
- to increase people's chances of staying linked with their families, communities and culture.

While it would be valuable to evaluate all these aims, currently Early Intervention Services in New Zealand range from single workers struggling to manage their caseloads at one extreme, to multi-disciplinary services that are better able to meet the requirements of evaluating their performance.

To add to this diversity of Early Intervention for Psychosis Service structures, each service has tended to devise its own practice models and treatment protocols. These developments raise the question of whether these programs are effective and if so, which of the approaches implemented are the most efficient. Questions such as these can be investigated by applying the principles of program evaluation (Owen & Rogers, 1999) to Early Intervention for Psychosis.

Structure of recommended evaluation

It is proposed that the evaluation of Early Intervention for Psychosis Services in New Zealand will consist of two aspects:

1. Evaluation of first episode psychosis clients.
2. Evaluation of Early Intervention for Psychosis *Services*.

These two aspects of outcome evaluation will be discussed in detail below.

Evaluation of Early Intervention clients

Consumer outcome is defined as the effect on a patient's health status attributable to an intervention by a health professional or health service (Andrews, Peters, & Teesson, 1994). Measures which are suitable for use in routine clinical practice need to be brief, low cost, multidimensional measures which require minimal training for their administration, scoring and interpretation.

Outcomes for psychotic disorders are best measured using a multidimensional approach as psychotic disorders affect a range of outcome indicators (Andrews et al., 1994). Evidence for this viewpoint is provided by the relative independence of outcomes across different areas (reviewed by Birchwood, 2000). For example, measures of, symptomatic and functional outcomes do not necessarily improve to the same extent or at the same pace (Shepherd et al., 1989).

Rating scales

Rating scales can standardise the content and increase the consistency of clinical interactions with the clients. Scales serve as checklists, ensuring that all the items that they address will be covered in a particular clinical session. The interview and examination guides that accompany the scales guarantee that items covered in the given session are covered in the same way during subsequent sessions. If used as repeated measures over time, scales may delineate the course of a client's illness, detect the occurrence of side effects, and document the effect, or lack of effect, of an intervention. The ability to detect change in the client's illness over time is improved, at the same rate it appraises the client on every occasion, using consistent interview examination and scoring methods. If different raters assess the client over time, structured evaluations using scales improve the comparability of patient assessments, compared with unstructured evaluations. The use of rating scales that provide standardised methods of obtaining information means that data from different raters and different sites may be pooled and compared (McEvoy, 2000).

The United States National Institute of Mental Health (Ciarlo, Edwards, Kiresuk, Newman, & Brown, 1986 in Mellsop & O'Brien, 2000) describe 11 criteria of the ideal outcomes measure:

1. The measure (or set of measures) should be relevant and appropriate to the client group(s) whose treatments are being studied (i.e. it should cover the most important and frequently observed symptoms, problems, goals or other domains of change for the group(s).
2. The measure(s) should involve simple methodology and procedures that can be implemented uniformly by a majority of service facilities using accessible and well-defined training materials and instructions. The scores from a measure should have clear and objective referents ('meanings') that are consistent across consumers to ensure interpretability of scores as well as changes in scores.
3. The scores of the measures should have clear and objective referents.
4. The measure(s) should reflect the perspectives of all relevant participants in the treatment process.
5. Measure(s) that provide information regarding the means or processes by which treatments may produce positive effects are preferred to those that do not.
6. The measure(s) should set minimal criteria of psychometric adequacy including: reliability, validity, sensitivity to change, freedom from respondent bias, and non reactivity to extraneous situational factors that may exist (including physical setting, client expectations, staff behaviour, accountability pressures etc.).

7. The measurement materials and implementation procedures should be relatively inexpensive.
8. The content and the presentation of results should be understandable to a wide audience including consumers, public servants and the general public as well as mental health professionals.
9. A measure's scores should provide easy feedback to various audiences and be readily interpretable without extensive statistical skill.
10. Measure(s) that are useful in clinical service functions (diagnosis, treatment planning, case review) are preferred to help facilitate acceptance and implementation of the outcome measurement effort.
11. The measure(s) used should be compatible with the wide range of theories of psychopathology and the goals and procedures of various treatment approaches.

Andrews and colleagues (1994) in a review of outcome measures also concluded:

> *"in summary, measures which are suitable for use in routine clinical practice are likely to be brief, low cost, multi dimensional measures which require minimal training in their administration scoring and interpretation but which are sufficiently reliable, valid and sensitive to change to indicate the outcome of the therapeutic intervention"* (page 33).

Any evaluation model should be realistic and achievable within the constraints of the busy clinical setting. Taking the above into consideration, the following measures are recommended for use in New Zealand Early Intervention for Psychosis Services:

- Assessment of symptoms (PANSS)
- Assessment of health status (HoNOS, SF12, GAF)
- Assessment of substance misuse (SATS, DrugCheck)
- Assessment of consumer outcome (To be developed)
- Evaluation of consumer satisfaction (To be developed by each service)
- Assessment of outcome for Maori (Hua Oranga).

In addition, it is recommended that a series of demographic and clinical indicators also be systematically recorded. These measures will be discussed in detail below.

Additional information to be collected

In addition to rating scales, other measures of outcome that are routinely collected by Early Intervention for Psychosis Services should also be incorporated in the outcome evaluation. Definitions are provided in order to maintain consistency across New Zealand services.

The following items are only required at 'Acceptance' to the Early Intervention Service (baseline).

Demographic information

- Date of birth
- Ethnicity
- Gender

Other measures

- Duration of untreated psychosis
  (defined as time between episode onset [4+ on 1 of the first 3 items of PANNS] and onset of ‘adequate’ treatment’ [antipsychotic medication given for four weeks])
- Duration of untreated illness
  (defined as time between onset of prodromal symptoms and ‘adequate’ treatment [antipsychotic medication given for four weeks])

The following information should be routinely obtained 6-monthly (or only at referral and discharge for ‘smaller services’):

- Weight (kg’s)
- Vocational and living arrangements:

Current living arrangements:

Living alone	1
Living with spouse/partner and/or children	2
Living with parents	3
Living with siblings or other non-lineal relatives	4
Living with other relatives/friends	5
In residential treatment facility	6
Other (specify)________________________	7

Current employment Status

Full-time	1
Part-time	2
Student	3
Unemployed	4
Homemaker	5
Other ________________________	6
Unknown	7

(multiple answers may be applicable for this item)

- Hospitalisation during time at service
  Number of admissions and number of days for each 6-month period
- Number of days of the last 6 months under the Mental Health Act
- Service engagement (custom likert scale)
  Rate the clients overall engagement with service staff/programmes etc.

No engagement with service	0
Minimal engagement with service	1
Some engagement with service	2
Moderate engagement with service	3
Excellent engagement with service	4

- Where discharged to:

Moved outside service catchment	1
Wishes no further involvement with service	2
Suicide	3
Death related to current mental state	4
Death unrelated to current mental state	5
Recovery leading to discharge	6

Referred to more appropriate service; specify:_____________ (for example A&D, YSS etc.)	7
In prison/inappropriate behaviour (e.g. drug taking on premises, assault on staff)	8
Discharged – no evidence of psychosis? inappropriate initial referral	9
Time with service completed; discharged to G.P.	10
Time with service completed; discharged to community team	11
Time with service completed; discharged to other MH service specify: _____________	12
Other; specify: _____________	13

- Diagnosis at discharge (DSM-IVR)
- Post-service utilisation of Mental Health services: hospitalisation, community team involvement etc. Clarification on the requirement for ethical approval to 'follow-up' clients after discharge was sought from the Canterbury Ethics Committee. 'As long as clients are informed of the reason that their future records may be accessed, given the right to rescind permission for records to be checked, and assured no publications will identify them, this aspect of evaluation should be alright' (Sally Cook; Secretary Canterbury Ethics Committee; personal communication; April 2002). It is recommended that each Early Intervention for Psychosis Service consult with their local Ethics Committee.

Psychotic symptoms

Broad-based psychopathology scales may be used to detect overall changes in the features of psychosis over time. The Positive And Negative Syndrome Scale (PANSS) (Kay et al., 1987), is currently the most commonly used scale in clinical trials. The PANSS may be obtained at a charge of approximately US$1.50 per copy. The main limitation of using PANSS in a clinical setting is the need to provide training in its use.

The Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962) was the most commonly used scale in clinical trials before the development of the PANSS. Bell and colleagues (1992) concluded that the PANSS is superior to the BPRS in clinical research on schizophrenia. All the items of the BPRS are embedded within the PANSS although Bell and colleagues (1992) suggest that most BPRS items are not interchangeable with identically named PANSS items.

PANSS includes seven positive subscale items, seven negative subscale items, and 16 general psychopathology subscale items. Each item of the scale has a detailed description and each item score has a detailed anchor point description. Importantly, PANSS asks questions that should be asked in a routine assessment of people with First Episode Psychosis, and therefore it is only the scoring that adds to the workload of the clinician.

It is recommended that PANSS is routinely used in the evaluation of Early Intervention for Psychosis Services in New Zealand.

General health outcomes

Medical Outcomes Study Short-Form 12-Item Health Survey (SF-12) (Ware, Kosinski, & Keller, 1996)

Salyers, Bosworth, Swanson, Lamb-Pagone, & Osher (2000) assessed the reliability and validity of the SF-12 in a sample of 946 adults (mean age 42.3 yrs) with severe mental illness. The SF-12 appears to be a psychometrically sound instrument for measuring health-related quality of life for people with severe mental illness. The SF-12 includes 12 questions from the SF-36 (Ware, Kosinski, & Keller, 1994): 2 questions concerning physical functioning; 2 questions on role limitations because of physical health problems; 1 question on bodily pain; 1 question on general health perceptions; 1 question on vitality (energy/fatigue); 1 question on social functioning; 2 questions on role limitations because of emotional problems; and 2 questions on general mental health (psychological distress and psychological well-being).

The SF-12 is widely used internationally to evaluate health status. The SF-12's inclusion of items examining physical health is useful as medical co-morbidity is an area that is often neglected in mental health consumers (Mason Durie; personal communication; April 2002; Jeste, Gladsjo, Lindamer, & Lacro, 1996; Dixon et al., 1999).

During Totara House's search for measures of outcome for Early Intervention, Dr Gavin Andrews was consulted on appropriate measures. Dr Andrews is the author of "Measurement of consumer outcome in mental health: a report to the National Mental Health Information Strategy Committee" for Australian Commonwealth and State funded mental health services (Andrews et al., 1994). Given our need for brevity, sound psychometric properties, and ease of use, his recommendation was to use the SF-12 (G. Andrews; personal communication; October 1999).

It is recommended that SF-12 is routinely used in the evaluation of Early Intervention for Psychosis Services in New Zealand.

Health status

Health of the Nation Outcome Scale (HoNOS) (Wing et al., 1999)

The HoNOS is a 12-item clinician-rated scale. The total HoNOS score may be used as in indicator of illness severity. The focus of the HoNOS is on health status and severity of symptoms. It is best considered a general measure of mental health disorder. Amin and colleagues (1999) evaluated the HoNOS in first episode psychosis and found that it correlated well with other established outcome scales. An advantage of using the HoNOS is that it is currently used in many mental health services throughout New Zealand as part of the MHCaOS study (Gaines et al., 2001)[9].

It is recommended that HoNOS is routinely used in the evaluation of Early Intervention for Psychosis Services in New Zealand.

Substance misuse

Substance use disorders occur with greater frequency among individuals with psychosis than in the general population. This is a concern for all involved in the provision of mental health services because substance use by people with psychosis has been documented to result in severe illness course and poor outcome (Addington & Addington, 1998). Drugcheck (Kavanagh et al., 1999) is a brief measure of substance use that has been previously used in first episode psychosis research. The Drugcheck includes the Alcohol Use Disorders Identification Test (AUDIT) (Saunders, Aasland, Babor, de la Fuente, & et al., 1993), a ten-item alcohol screening instrument. The DrugCheck asks clients to list their use of a range of substances and merely standardises how substance misuse is assessed. Permission to use the DrugCheck has been approved, subject to inclusion of the following: Copyright 1999 University of Queensland. Reproduced with permission of the authors.

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[9] While the Life Skills Profile is also used in the CaOS study, it was not considered for use in the present evaluation protocol due to extremely negative feedback from both clinicians and consumers.

The Substance Abuse Treatment Scale (SATS) (McHugo et al., 1995) can be used as either a process or outcome measure for individuals or groups with substance abuse problems to evaluate treatment progress by making explicit the stages of substance abuse treatment. The Substance Abuse Treatment Scale (SATS) combines a motivational hierarchy with explicit substance use criteria to form an eight-stage model of the recovery process. Scoring involves rating the client from 1-8.

It is recommended that DrugCheck and SATS are routinely used in the evaluation of Early Intervention for Psychosis Services in New Zealand.

Global rating scales

Global Rating Scales allow clinicians to make a single judgement that summarises wide areas of functioning in a client's life. The Global Assessment of Functioning Scale (GAF), (Frances et al., 1994), allows the clinician to summarise the client's psychological, social and occupational functioning on a continuum extending from superior mental health and social and occupational performance to profound mental impairment that precludes any social or occupational competency. When using the GAF Scale the clinician is specifically instructed to exclude impairment due to physical or environmental limitations.

It is recommended that GAF is routinely used in the evaluation of Early Intervention for Psychosis Services in New Zealand.

Quality of life (QoL)

There is broad agreement that QoL should be measured both subjectively and objectively (Fitzgerald et al., 2001). In essence, the subjective evaluation of quality of life reflects the gap between an individual’s aspirations and current achievements, and therefore what may be perceived as good by the outside observer may not be assessed that way by the individual with first episode psychosis. It has been proposed that this may be related to insight (Atkinson, Zibin, & Chuang, 1997). Life satisfaction and objectively rated quality of life are not closely related and appear to have different determinants in consumers with schizophrenia (Fitzgerald et al., 2001).

This section discusses a commonly used clinician-rated QoL scale (Heinrichs, 1984), and a self-report QoL scale, the Wisconsin QoL Index (patient/client version) (Becker, Diamond, & Sainfort, 1993)

The Quality of Life scale (Heinrichs, 1984) is a semi-structured interview consisting of 21 items rated on a 7-point scale for the previous month. Constructs include: intrapsychic foundations, interpersonal relations, instrumental role, common objectives and activities. One of its main disadvantages is that it can take 45 minutes to administer. This is a common problem with QoL scales and makes their routine use in clinical settings problematic.

Wisconsin QoL Index assesses 9 separate domains: (a) satisfaction level for different objective quality of life indicators; (b) occupational activities; (c) psychological well-being; (d) physical health; (e) social relations; (f) economics; (g) activities of daily living; (h) symptoms; and (i) goal attainment. Each domain can be individually weighted depending on its relative importance to the client. Different parts of the instrument solicit information from the client, the primary clinician, and, when available, the family. In addition, the goal attainment section can be of particular interest when comparing the goals of the clinician with those of the client. This instrument is used routinely in first episode psychosis by A. K. Malla (2001) and is found to be extremely useful (Ashok Malla; personal communication; November 2001). However, both these instruments are long and it is not feasible to recommend their routine use in Early Intervention for Psychosis Services, despite the valuable information that they can provide.

Recently, Fossey & Harvey (2001) have reviewed the concept of functioning and its implications for the development of consumer outcome measures. They conclude that a critical examination of the concept of functioning is overdue and "essential if more sensitive and appropriate means are to be found to evaluate individual and service outcomes in functional terms" (page 97).

Sonja Goldsack has suggested that under the recovery approach, people must measure their own outcomes. Currently, our understanding of the 'recovery journey' is based on U.S. literature and this is not easily translatable into the New Zealand context. A lot of groundwork and consultation needs to be done before a viable outcome measure can be developed. Nothing currently available would do justice to the recovery approach, although work is underway (Sonja Goldsack; personal communication; April 2002). For example, Goldsack and colleagues are currently using the hermeneutic phenomenological method of enquiry to allow New Zealand's mental health consumers/tangata whaiora to identify, define and characterise positive and negative factors associated with recovery from mental illness. This will help to develop locally based evidence which can be used to support services in the use of the 'recovery approach'.

Recognising the lack of appropriate measures of consumer outcome, the Health Research Council, Mental Health Research and Development Strategy is funding a project examining key elements in an outcome measure considered important by New Zealanders. The project will develop an appropriate New Zealand self-assessed measure of consumer outcomes in the mental health sector. In discussions with Linda Simson, (Coordinating Consumer Advisor, Mental Health Services, Canterbury District Health Board), it was decided not to suggest another tool for the assessment of consumer outcome until this work has been completed.

It is recommended that no new measures of consumer outcome are initiated by New Zealand Early Intervention for Psychosis Services. If a measure is required in the interim, it is recommended that the Heinrichs QoL or Wisconsin QoL Index be used.

Evaluation of consumer satisfaction

The benefits of evaluating Early Intervention for Psychosis Services from the consumers' and the providers' perspectives is discussed by Fisher & Savin-Baden (2001). The New Zealand National Mental Health Sector Standard 9 (MoH, 2001) states that "Consumers are involved in the planning, implementation and evaluation at every level of the mental health service to ensure services are responsive to the needs of individuals" (page 24).

Accordingly, a consumer participation program should be developed to ensure services are consumer focused and contribute toward improved consumer outcomes. This effectively means that each Early Intervention service must develop its own consumer satisfaction survey in consultation with its consumers. In order to develop a consumer satisfaction survey it is suggested that the following process be used as a general guide (Linda Simson; personal communication; April, 2002):

1. A focus group of 6-8 clients and ex-clients should be randomly selected and invited to participate in a 'focus group' to develop a consumer satisfaction survey. The group should ideally have a consumer facilitator with the following characteristics:
    - a high degree of empathy with consumers and their realities
    - good facilitation skills

- ideally independent from the Early Intervention service.

2. Before the first meeting it may be appropriate to send participants some suggested areas to be covered and/or copies of existing questionnaires. For example, a requirement of mental health services is that they provide adequate information to consumers, and the group may wish to develop a question around this issue. The first meeting would involve a 'brain-storming session'.
3. The consumer facilitator would then create a draft survey from this session. The draft would be sent back to the group members individually for comment and then as a group.
4. The revised draft would then be circulated to the group members for further comments until a consensus is reached on the items to include.
5. The final survey should then be piloted on approximately 10 consumers of the service. They should fill the survey in and provide comments on its content, presentation etc. At this stage any final changes may be made.

In addition to the development of satisfaction scales, an alternative is to take a more qualitative approach and use a thematic analysis of interviews with consumers as conducted at the EPI Centre in Waitemata (Burke-Kennedy et al., 2000). Fossey & Harvey (2001) discuss qualitative methodologies in the context of enhancing our understanding of functioning for mental health consumers.

Assessment of outcome for Maori

Research in Maori mental health and the evaluation of clinical practice is a critical part of establishing and maintaining excellence (Ryan, 1998). Maori Mental Health Services are required to be measured against indicators which are appropriate and relevant to Maori (Kingi & Durie, 2000). Outcome tools make assumptions with respect to what outcome is preferred or what aspects of well-being should be considered. Often a series of standard questions will be asked and responses documented or rated. Based on this an outcome assessment will be made. Kingi & Durie (2000) contend that a problem occurs when the types of questions asked do not account for concepts or issues considered important to the client or necessary to their recovery. Furthermore, the questions may refer to issues or use language that respondents are unfamiliar with. This is particularly so for schedules or tools which have been developed within other cultural paradigms. Cultural perceptions of health and well-being will also influence what a preferred outcome may be and tools which fail to consider such factors are unlikely to be appropriate for Maori.

While Maori will benefit from measures which consider clinical aspects of outcome, culturally founded outcome preferences will likewise need to be explored so that a more complete assessment of outcome aligned to Maori concepts of health can be determined. This issue is acknowledged by the IEPA 'Consensus statement on principles and practice in early psychosis' (Edwards & McGorry, 2002), which states: "Research should be led or heavily informed by local clinicians and researchers so that culturally normal experiences and behaviours are not mislabelled as pathological". Kingi & Durie (2000) suggest that for the most part, process-type measures have been used as a proxy measure of outcome, the assumption being that if an intervention took place in a timely, adequate, appropriate and acceptable manner the outcome would be favourable. Additionally, health services have been funded in this manner; that is, based on what occurred rather than the health benefit produced. For Maori users of Mental Health Services this approach has often failed to explain why many experience poorer outcomes despite receiving similar modes of treatment.

Culturally reliable measures of outcome provide two major opportunities to improve service effectiveness. First by further validating Maori approaches to treatment and care and second by providing funders with clear evidence on which to base their purchasing decisions. Likewise the value of the added cost of providing culturally relevant treatments may also be assessed. It is important that outcome tools measure aspects of health which are important and relevant to those undergoing assessment.

There should be a formal process for evaluating changes in a person's health as perceived by tangata whairoa, whanau, clinicians and other people closely involved in the persons life. Maori should carry out assessment of mainstream service for Maori.

"Hua Oranga" is a cultural measure of mental health outcome, designed specifically for Maori consumers of mental health services (Kingi & Durie, 2000). The tool is designed to be a quick, easily administered measure of outcome, appropriate for routine clinical use.

The framework of "Hua Oranga" is based on five underlying principals, three key stake holders, four domains of outcome and five clinical end points. The five principles are designed to highlight the key concepts that should underpin a measure of Maori Mental Health outcome. The principals are consistent with the particular needs of Maori as well as the concerns arising from the nature of mental illness in a context within which it takes place.

These principles are (Kingi & Durie, 2000):

- *Wellness*. The wellness principal provides a guide for the frameworks and reflects the overall purpose of any intervention.
- *Cultural integrity*. Cultural integrity is a prerequisite for any cultural measure and recognises the need to consider cultural norms and perspectives of outcome.
- *Specificity*. Specificity is needed in order to more precisely measure outcome and to more effectively target outcome measures.
- *Relevance*. Relevance refers to the utility of outcome measures and the need to construct tools which are useful and appropriate.
- *Applicability*. Applicability principal is consistent with the relevance principle and affirms the need for a practical and manageable outcome tool.

The three key stake holder groups are clients, clinicians and whanau. By balancing these three perspectives it is suggested that a more accurate impression of outcome can be obtained.

Four domains of outcome were recommended. These reflected Maori concepts of health and wellbeing and were based on an accepted model of Maori Health Te Whare Tapa Wha. The model represents the holistic nature of Maori health and further asserts the need to consider more than just the psychological aspects of mental health.

The Te Whare Tapa Wha model includes:

- Taha Wairua (Spiritual Dimension)
- Taha Hinengaro (Mental Dimension)
- Taha Tinana (Physical Dimension)
- Tha Whanau (Family Dimension).

Reliable measures of Maori Mental Health outcome are likely to provide funders with clear evidence of the effectiveness of cultural interventions. The Blueprint for Mental Health Services in New Zealand (MHC, 1998) states that "whatever performance measures are adopted, they must ensure that Maori views of health and cultural identity are not further ignored".

Currently Hua Oranga is in Phase III of its development. This involves assessing the functionality of the instrument in 'real-life' settings. Te Kani Kingi suggests there is a need to reshape the instrument to suit youth and severe mental health problems such as psychosis (Te Kani Kingi; personal communication; April, 2002). Totara House is currently in negotiations to help with this process for Maori consumers with first episode psychosis. Until Hua Oranga is further validated, individual Early Intervention for Psychosis Services must consult with tangata whai ora (people seeking wellness) and whanau to ensure outcomes are culturally effective. This means that performance measures go beyond the immediate clinical parameters (i.e. PANSS) and encompass the wider measures of good health for Maori.

While Hua Oranga may still need refinement for people with psychosis, it remains the best available measure. It is recommended that, after appropriate consultation with the authors (Kingi & Durie), Hua Oranga be routinely used in the evaluation of Maori clients in Early Intervention for Psychosis Services in New Zealand.

Below is a series of measures that are relevant to the evaluation of Early Intervention for Psychosis, however it would be unrealistic to suggest that they are administered in routine clinical practice. The description of these measures is provided for units that might have a particular interest in an area. By standardising these measures also, there will be the potential for research projects to be conducted in multiple services.

Other scales that *should* be used in Early Intervention for Psychosis Service evaluation but can not realistically be included

Depression

Depression is a common feature of psychosis and is associated with increased personal distress, poorer functional performance, higher rates of relapse, and increased mortality through suicide (Addington, 1998).

Calgary Depression Scale for Schizophrenia. The CDSS is a nine item scale specifically developed for the assessment of depression in clients with Schizophrenia (Addington et al., 1990). The CDSS has less overlap with positive and negative psycho pathology compared with the Hamilton rating scale for depression and does not include items that address weight change or initial sleep, which are both factors that may be confounded by the pharmacological treatment of Schizophrenia. Many other depression scales may be confounded by the presence of psychosis and/or pharmacological treatments.

Pathways to Care

In order to promote rapid access to services, with the objective of decreasing duration of untreated psychosis, it is recommended that services track the 'pathways to care' (Lincoln & McGorry, 1999) of the people seeking service. If early intervention services are able to establish *where* people with first episode psychosis have been to seek treatment before arriving at this service they will be able to decrease the duration of untreated psychosis by targeting their liaison and education about the early intervention service to these areas. First contact for psychosis will likely be through an emergency service, acute inpatient service, or primary health care provider.

Anxiety

There are no anxiety rating scales specifically designed for early psychosis settings. Totara House has found that anxiety is the most common problem rated on item 8 (other mental and behavioural problems) on the HoNOS (Wing et al., 1999) by clinicians. However, there seems to be a lack of research in the area of co-morbid anxiety in individuals with psychosis. The State Trait Anxiety Inventory – STAI (Spielberger, 1983) has previously been used in first episode psychosis, although it is not an ideal measure for this population.

Extrapyramidal side effect rating scales

According to McEvoy (2000) clinicians frequently under recognise the presence of extrapyramidal side effects (EPSE) relative to researchers ratings. It is likely that the use of rating scales that prompt clinicians to ask clients about the subjective experience of EPSE's and examine clients for objective evidence of EPSE's will substantially narrow this difference.

EPSE Rating Scales have been divided into the following three sections (McEvoy, 2000):

1. Bradykinesia-Rigidity and Tremor. The Simpson-Angus Scale, (Simpson & Angus, 1970) has been the most commonly used rating scale for Parkinsonian EPSE's in clinical trials over the past 25 years. It has ten items including seven that address Bradykinesia-rigidity and additional single items for *glebellar cap*, *tremor* and *salivation*.
2. Akathisia. The Barnes Akathisia Rating Scale (BARS) is the most widely used comprehensive rating scale available for this common and distressing side effect (Barnes, 1989). The BARS includes both objective items (for example observed restlessness) and subjective items, (for example the clients awareness of restlessness and a related distress), and a global clinical assessment of akathisia.
3. Tardive Dyskinesia. The Abnormal Involuntary Movements Scale (AIMS) (Guy, 1986), is the most commonly used scale for detecting and rating the severity of Tardive Dyskinesia.

Family experience of Early Intervention for Psychosis

Experience of caregiving inventory (Szmukler, Burgess, Herrman, & Benson, 1996) is a 66 item self-report measure of the experience of caring for a relative with a serious mental illness, with caregiving conceptualized in a stress-appraisal-coping framework.

Duration of untreated illness

While duration of untreated illness is referred to below, The Premorbid Adjustment Scale (PAS) (Cannon-Spoor et al., 1982) is designed to evaluate the degree of achievement of developmental goals at each of several periods of a subject's life before the onset of schizophrenia. The PAS was developed to be applicable in a *research setting*, and may be of interest to those who are interested in a more precise examination of premorbid functioning. However, its time to administer makes it inappropriate for routine clinical use.

Measurement indicators for Early Intervention for Psychosis Services

The New Zealand Early Intervention in Psychosis: guidance note (MHC, 1999a) states that:

> *"teams should regularly audit all aspects of their practice to ensure ongoing high standards of practice. It is important that the practices that contribute to effective treatment are identified and that services audit themselves to see how well they are doing.*

> *For example early intervention services want to work in better partnership with their clients so they need to establish what this would mean in practice or decide how they would audit their performance on these practices"* (page 19).

While a common appreciation of the essential aspects of Early Intervention for Psychosis exists, elucidating them in a way that can be operationalised and meaningfully recorded is a complex task. The evaluation of Early Intervention for Psychosis Services requires the recording of indicators that assess the extent to which a particular service implements key components of early intervention.

The following measurement indicators were developed after reviewing the literature on 'service evaluation in first episode psychosis' and consultation with New Zealand and overseas experts, including; Jo Gorrell (Northern Sydney Health EPPINY Project), and John Read (Senior Lecturer, University of Auckland).

Milner, Rowlands, Gardner, & Ashby (2001) developed and implemented local audit standards for management and service engagement in the follow-up of a first episode of psychosis. Audit standards, developed following a literature review and consultation with colleagues, were incorporated into a questionnaire for distribution to the community keyworkers of a 'first episode of psychosis' cohort at 1-2 years of follow-up. The criteria we used for judging educational programmes etc. were rather subjective. Keyworkers were asked to describe in detail the programmes used prompted by questions about the structure, content and theoretical basis (E. Milner; personal communication; March 2002). The Northern Sydney Health EPPINY project audit tool is a detailed assessment looking at outcome data that can be obtained from casenotes (Jo Gorrell; personal communication; April, 2002). Measuring the quality of outpatient treatment for schizophrenia has recently been described by Young, Sullivan, Burnam, & Brook (1998).

In order to ensure on-going high standards of practice in Early Intervention, certain measures of performance need to be developed. Clinical files can be a nightmare to check through if the team leader has the sole responsibility of auditing the outcome measures (Kay Fletcher; Unit Manager, Totara House; personal communication; April 2002). The auditing of files is time consuming and the level of detail is limited to what can reliably be audited from a file. For example, in a study measuring the quality of outpatient treatment for schizophrenia (Young et al., 1998), more than half of the cases of poor care would not have been detected if the authors had used only medical records data. The key objective of this report is to deliver outcome measures that can *practically* be used by Early Intervention for Psychosis Services in New Zealand. Several processes must be in place within the Service in order to make this process manageable:

1. A 'checklist' that is placed at the front of the client's file is essential. This document is used by team members to track what has been done and what hasn't for each client. It can act as a useful reminder to the team members, and can be used to make sure certain aspects of treatment have been delivered. In order for the checklist to be useful, members of the team must feel that they are able to ask why certain sections have not been completed.
2. For the checklist to work it must be filled out correctly. In order for this to occur, it is important that whoever 'checks off' an item signs the checklist, and can justify signing the item off with documentation from the clinical file. Signing off each item means that people are more likely to be accurate.

File audits can therefore be completed quickly and accurately if the checklist is completed properly.

It is proposed that the measurement indicators are divided into two sections:

1. Measurement indicators of client care
2. Measurement indicators of unit fidelity.

Measurement of client care

Measurement indicators for early intervention in psychosis services need to be specific and related to the different phases of management.

1. Referral
2. Assessment
3. Acute treatment
4. Recovery interventions
5. Discharge

Below is the checklist recommended for inclusion in the files of people with first episode psychosis in order to track their treatment and see how well the Early Intervention for Psychosis 'service' is meeting the key elements outlined in this document. It is recommended that this checklist is placed in the front of the clients file or somewhere readily accessible in order to keep track of client progress.

1. Source of referral
2. Mental Health Act status on admission
3. What was the length of time between referral to service and initial assessment
4. What was the length of time between referral to service and initial contact with case manager
5. What was the length of time between referral to service and initial contact with psychiatrist
6. Were the family invited to attend the initial assessment Yes/No/NA
7. What was the length of time between referral to service and initial contact with an appropriate cultural representative (for example Maori Health Worker, interpreter etc.) No. of days or N/A
8. Was the client given information about: Yes/No
    a. the Mental Health Act in general
    b. their right to see their file (and challenge inaccuracies)
    c. their rights concerning refusal to refuse treatment
    d. their access to a lawyer (Regional/District Inspector?)
    e. adverse effects of treatments offered
    f. the Early Intervention Service

8a. Were the family/whanau/significant others given initial and appropriate written and verbal information about early psychosis within 48 hours from the time of their initial assessment. Yes/No/NA

9. Was the client offered: Yes/No/NA
    - i Individual psychotherapy/counselling (general)
    - ii Individual psychotherapy/counselling to address adverse life events (e.g. child abuse/neglect)
    - iii Group therapy
    - iv Family therapy
    - v Counselling/support regarding drugs/alcohol
    - vi A typical low dose medication
    - vii Support regarding Housing
    - viii Support regarding Income
    - ix Support regarding Employment
    - x Support regarding education
    - xi Access to hospital when needed
    - xii Access to non-hospital respite when needed
10. If required did the client have access to: Yes/No/NA
    - a. Psychologist
    - b. Psychiatrist
    - c. Social worker
    - d. Psychiatric Nurse
    - e. Occupational Therapist
    - f. Dietician
11. Identification of early warning signs documented Yes/No
12. Mental health Act status on discharge

Measurement of unit fidelity

The measurement of unit fidelity should be conducted 6-monthly, and consists of the following four aspects of Early Intervention for Psychosis Services:

- Caseload ratio (should be of mixed discipline; nurses, O.T.'s, social workers etc.) case manager FTE to caseload ratio should be approximately 1:15 (this should not include psychiatrists, administration etc.) for clinically appropriate care of first episode psychosis.
- Consultant psychiatrist to caseload ratio: consultant psychiatrist FTE to caseload ratio should be approximately 1:100 (not including medical staff in training) for clinically appropriate care of first episode psychosis.
- Clinical psychologist ratio: Clinical Psychologist FTE to caseload ratio should be approximately 1:50 (not including generic case management role) for clinically appropriate care of first episode psychosis.
- Maori Health Worker ratio: Maori Health Worker FTE to caseload ratio should be approximately 1:15 when not also actively case managing.

Caseloads, FTE's etc. are routinely reported by each District Health Board to the Ministry of Health, so this information should be readily available.

Research process

Data collection

The data entry format is a critical part of any service evaluation. It is recommended that a system such as EPOES (Preston, 2001) be adapted to New Zealand requirements. EPOES is the Early Psychosis Outcome Evaluation System. It was devised by members of the Early Psychosis Group (a group of clinicians and researchers working within early psychosis programmes) from Perth, Western Australia to capture clinical outcome data. The programme operates on a Microsoft Access platform. Clinical data can be captured from the case managers, patient/client and family members on a number of clinical instruments.

Once client demographic details are logged into EPOES the Case Manager or an administrative assistant can then enter the data. The purpose of a system such as EPOES is to provide immediate clinical feedback on the status of clients (graphically represented) on the outcome measures used. This can assist in informing clinical practice and also to generate ‘reminder reports’ for follow-up administrations. This system of feedback to the clinicians means that they can see some tangible meaning in having to complete the evaluation. To assist in the interpretation of the clinical outcome reports as well as how to use the EPOES programme, a comprehensive help file is available for users. The Help File has information on all instruments used, how their subscale scores are calculated and operational definitions of data entry such as Onset of Illness (Preston, 2001).

System requirements to run EPOES

- Windows based computer
- Pentium processor
- At least 32 mb of RAM

EPOES can operate as a stand alone system, or a coordinated outcome evaluation project, where the relational databases can be merged to evaluate not only a particular geographic clinical programme, but as a system wide initiative. The system can operate at an individual clinical/case manager level, at a programme level or at a system wide level by merging data sets together of treated populations (Preston, 2001). This is particular importance if we are interested in specific outcomes, such as outcomes for different ethnic groups. As first episode psychosis has such a low incidence, the number of people seen at each unit means that it is extremely difficult to draw conclusions on outcomes for sub-groups of consumers.

Data entry requirements

The ‘user-friendly’ nature of the data-entry procedure is another extremely useful feature of a system such as EPOES[10]. A measurement error that needs to be considered is error related to the recording of the results. For all research, collected data has to be recorded, whether manually or electronically, and in many studies the raw data is converted or manipulated to give the final variable representing the factor under consideration. Errors in data entry and coding can lead to differences between the true value and the recorded value no matter what precautions are taken in earlier steps to prevent measurement error. The use of a system such as EPOES can help reduce this form of error by using ‘validation rules’ from Microsoft Access, that mean only certain values can be entered into a data set. The use of ‘forms’ can also make it easier to see where data is going and confirm that you are inputting the correct value for the

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[10] Refer to http://www.headford.com.au/ for a sample of data entry ‘forms’ etc.

correct question. The use of well-designed forms means that data can be easily input by clinicians and/or an administrative assistant.

It is estimated that data-entry requirements using a system such as EPOES would be approximately 0.1 FTE per 25 clients evaluated.

Training required

Training in the use of EPOES would be required in order to input data and access reports for all staff. This would involve a ½ day per team 'hands-on' entering data into the database and producing reports that might be then used as the basis for discussion regarding the interpretation, significance, and what the results mean.

In addition, training would also be required in administration of all measures in order to increase reliability. This would require a ½ day per team in order to answer any questions regarding each measure etc. This would also be an opportunity to talk to the team about the rationale and benefits of the evaluation, which is a crucial aspect of implementing the process effectively. Periodic (six-monthly) inter-rater reliability checks are also recommended. The use of video and a 'simulated client' (actor) has recently been implemented at EPPIC (Wong, Harris, Edwards, & Elkins, 2001) in order to increase reliability. These sessions provide an opportunity for practice, to discuss reasons for ratings, and discrepancies.

Formal training is required for the PANSS (Kay et al., 1987). This training takes a full day, at least, from a qualified trainer.

Analysis of results

For services that are only collecting 'before and after' data, a simple *t*-test may be sufficient or a change score. However, for services that are able to collect data at multiple time points, a more sophisticated analysis is preferable to the use of multiple t-tests. Additionally, there are significant issues associated with meeting the assumptions of standard statistical models.

Arndt and colleagues (2000) examined the statistical properties of seven indices that summarize patient long-term course using multiple time points. These indices can be used to compare differences between two or more groups or to test for changes in symptoms over time. Of the seven indices assessed for their statistical properties, Kendall's tau performed the best as a measure of patients' symptom course. Kendall's tau appears to offer more statistical power to detect change in course, yet its average 'type I' error rate was comparable to the other indices.

Co-ordination of evaluations

Multisite evaluations can generate larger sample sizes, with greater power to test hypotheses and more precise estimation of population parameters. This advantage is particularly important in the study of low-prevalence disorders, such as first episode psychosis. However, in order to centralise data collection, there must be an agreed definition of 'first episode psychosis' and consensus on what constitutes doing 'Early Intervention for Psychosis'. In order to avoid the pitfalls of multisite trials described by Kraemer (2000) it is recommended that there is a principle investigator appointed who co-ordinates the evaluations as a whole. Furthermore, an executive committee needs to be established that is responsible not to any one site, but to the study as a whole. This should be in association with the New Zealand Early Intervention National Steering Group.

Finally, site directors are needed to oversee (and in effect take responsibility for) the participation of each site in the evaluations. At the level of each service, a 'research group' should be formed to discuss problems that eventuate at the service level. This team *must* include clinicians (nurses, occupational therapists etc.) so the team has a feeling of ownership and participation in the evaluation process, rather than having it 'thrust upon them from above'. A very common occurrence in health services. Evaluation of 'what works' for first episode psychosis is a complex question. The recommendations outlined in this document take a 'black box' approach (Mechanic, 1996) in that they are essentially looking at change in clients over their time with the Early Intervention for Psychosis Service.

Ethical approval

The current project is concerned with *evaluation* of Early Intervention for Psychosis Services and it is anticipated that the proposed evaluations will not require ethical approval. The following matters do not require Ethics Committee Approval (MoH, 2002):

4.0 Research

134 The following research activities do not require ethical approval.

i. Questionnaires or surveys that do not involve the collection or use of confidential or sensitive personal information (e.g. patient satisfaction surveys).

ii. Research utilising existing publicly available documents or data (e.g. analysis of archival records that are publicly available, analysis of any information or data gained by a request under the Official Information Act 1982).

iii. Observational studies in public places in which the identity of the participants remains anonymous.

4.1 Audit

135 Audit involves an investigation into whether an activity meets explicit standards as defined in an auditing document for the purpose of checking and improving the activity audited. An audit undertaken by or under the supervision of senior members of the health care or disability service directly responsible for the care of that group of health and disability service consumers would not require ethical review.

136 Access to confidential medical/personal information held by the service must be restricted to those individuals employed or contracted by the service provider, the funder of the service, or an agency responsible for overseeing the safety and quality of the service and be used solely for the purpose of auditing a service. All information must be recorded in a non-identifiable manner and any report must not identify any individual.

137 Ethical Review for an audit is required if it is intended to seek from patients additional information other than that which was collected service during the provision of health and disability care.

Operational Standard for Ethics Committees (MoH, 2002; page 26-27).

Implications of not requiring ethics approval

Most inferential statistics assume that subjects have been sampled at random from a well-defined population (Mendenhall, 1979). The way the sampling units are selected may lead to under selecting or over selecting respondents of a certain type. Sample selection bias is introduced if those who participate in the study differ, in terms of the outcome of interest, from those who do not participate. If this occurs, the responses obtained may not represent those present in the population from which the (biased) sample was drawn. Non-response bias refers to those people who refuse to be interviewed. If potential subjects' non-participation was not made on a purely random basis, a non-response bias is introduced.

In the case of evaluating Early Intervention for Psychosis Services, this means that if certain people refuse to participate in evaluation, a biased conclusion of the efficacy of the service may be drawn. Essentially the concern is that people who refuse to participate in evaluation (if ethical approval were to be required) may be people whose engagement with the service and/or adherence to treatment is poorest. If the outcomes of these people are not included in the evaluation of a service, it may lead to an overly optimistic assessment of the efficacy of Early Intervention for Psychosis Services. For example, people with a longer duration of untreated psychosis are more reluctant to give ethical approval (Johannessen, 2001).

Recommendations regarding ethical approval

It is recommended that all services approach their local ethics committee to confirm that the evaluation proposed in this report does not require ethical approval, and therefore, informed consent from the client. In addition, all clients should be fully informed that information collected *might* be published. The Canterbury Ethics Committee deemed that the Totara House evaluation did not require ethical approval, as long as only aggregated data was published and that no client could be identified in any publication. In addition code numbers should be used on information collected.

Practicalities of introducing routine evaluation to Early Intervention for Psychosis Services

Falloon and colleague's (1999) international demonstration of empirically validated treatment and rehabilitation strategies shows that it is possible for research to move from academically supported studies of treatment efficacy to studies of community-based mental health programs, where the effectiveness of services can be documented.

However, clinical experience from implementing outcome measures at Totara House have significance to the current project. Clinicians must be 'sold' on the idea of using these measures. Within mental health services in New Zealand there is a culture of distrust of outcome evaluations. Outcome measures are viewed as a management tool rather than a clinical tool (Phillipa Gaines[11]; personal communication; April 2002). The relevance to clinical practice must be emphasised (and established). The times to complete each evaluation should be seen in context: this is information that needs to be collected anyway. It is not additional information but rather clinically relevant information that is now collected/reported systematically. However the collection of this information is additional work for clinicians. Additional resources must be made available to enable evaluations to be conducted, recorded and utilised.

Clinicians may find this as a challenge/insult to their clinical expertise, although it can be pointed out that the information can be used to confirm their clinical impressions, and standardise throughout the team what is meant by, for example, 'the client still has negative symptoms'. This can be quantified using the Positive And Negative Syndrome Scale (PANSS) (Kay et al., 1987), so everyone is clear about what the clinician means.

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[11] Phillipa Gaines is the Project Manager for the MHCAOS project in the MHR&DS.

Results of evaluations must be meaningful in informing clinical practice

This involves timely feedback to clinicians on the progress of their client over time in order for the clinician to see some tangible results from the evaluation. Information can confirm clinical impressions.

In order to tailor services to meet the changing needs of clients, extensive use should be made of the information collected through the evaluation programme. As well as evaluating the effectiveness of the service, an essential aspect of the data collection is to assess and monitor the evolving needs of the client population. For example, if from an analysis of the *service* data it is found that scores on the Substance Abuse Treatment Scale (SATS) (McHugo et al., 1995) are not improving, on average, discussions can be undertaken on whether more resources should be invested in upskilling case managers in the principles of motivational interviewing.

Clarify what data collection will and will not do and be honest with limitations

Clinicians must be informed of exactly what can be achieved by administering the outcome measures. Randomised controlled trials are the gold standard for assessing the efficacy of treatment. Given the ethical considerations involved in evaluating Early Intervention Services, naturalistic longitudinal studies, such as that currently being undertaken at most Early Intervention for Psychosis Services, are the only practical means of gathering appropriate evaluation data. Randomised controlled trials are not ethical considering they require withholding optimum treatment for young people experiencing their first psychotic episode. The type of evaluation proposed in this report *can not* definitively say that it was the Early Intervention Service that was responsible for any improvements observed. Other factors may be involved, for example the client may have just got better anyway. Exactly what can be achieved by the type of evaluation proposed in this document must be clearly communicated to participating clinicians, and funders. There is no way of looking at whether Early Intervention for Psychosis Services help people to a greater extent than ‘treatment as normal’, without a control group

An alternative that could be considered would be to follow the progress of individuals in an area with a fully resourced early intervention service and compare their outcomes with people in an area (that is demographically similar) without such a service. This would require employing a research assistant to administer appropriate interviews in the area without the early intervention service as well as evaluating the Early Intervention Service. A similar design could perhaps be used in multiple areas with single Early Intervention for Psychosis workers to look at differences in outcome for clients between specialist Early Intervention services and specialist Early Intervention key workers. Comparisons are only meaningful with some sort of ‘casemix’ measure.

What the proposed service evaluation can achieve is to provide the ability to look at trends and use the data to refine treatment packages to meet the identified need. It can also be used to look at *changes* in clients during their time with the service.

Summary

The above section outlines a draft template for future service evaluation that may practically be used by services. It is not anticipated that all clinicians who work in early intervention will be able to manage the requirements of this evaluation and Early Intervention services will require additional resourcing to conduct these evaluations. It is beyond the scope of this document to suggest what constitutes an Early Intervention for Psychosis Service and what does not. The review of key essential elements outlined in Part 4 should help to guide this endeavour. The

New Zealand Early Intervention National Steering Group should be involved in this and it is hoped that this document will contribute to future service development in New Zealand.

When evaluating Early Intervention Services, there is a need for dedicated funding for evaluating services. Otherwise there is a risk of a lack of staff support for collection and analysis of data. There may also be a lack of expertise among staff in evaluating results. The evaluation may not be seen as a high priority and therefore time will not be made available for evaluations. In the busy clinical environment it may be easy to consider an evaluation a non-essential activity. Funders and providers of mental health services must view evaluation as an integral component of the mental health service structure and recognise that it is an expensive and time-consuming endeavour.

A caveat to this focus on ‘outcome measures’ is provided by Strauss (2000) who reminds us of the limitations of our assumptions about objectivity and science in the mental health field, where human experience is a crucial source of data and concepts. Rather than relying on ‘data’ the author contends that ‘narrative form’ at least for the present, may be the only way to describe the complexities, meaning and depth of human experience and by relying on ‘data’ we are missing out on a wealth of information about first episode psychosis. Qualitative methods were used to good effect to gain an understanding of attitudes, and the reasons behind the attitudes, in an examination of work issues for young people with psychosis (Bassett et al., 2001).

Conclusion

Naturalistic longitudinal studies such as the outcome measures can not ‘prove’ that early intervention services for people with first episode psychosis are responsible for improvements in outcome measures that are utilised. However, there are a myriad of studies showing the poor long-term outcomes for people with psychosis (Jablensky et al., 1999) and schizophrenia (Wiersma et al., 1998; Helgason, 1990). If improvements above and beyond these can be established by Early Intervention for Psychosis Services, we can ‘infer’ that improvements are due to the specialised services provided. In order to look seriously at whether Early Intervention works, quasi-experimental designs, as discussed in this document and detailed by McGlashan (1996b) are required.

In order to establish which elements of Early Intervention for Psychosis Services ‘work’ randomised controlled trials of each component are required. Jorgensen and colleagues (2000) have set up the largest study to date to evaluate a modified assertive community treatment programme aimed to improve the course and outcome in young persons suffering from psychosis as compared to treatment in generic community mental health centres. Studies such as these are expensive to develop and require many years to establish results. The full cost of implementing (and supporting) comprehensive evaluations of Early Intervention for Psychosis Services in New Zealand should not be underestimated. However, in order to evaluate different *types* of Early Intervention service it is ethical to add treatments to existing services and assess the outcomes in comparison to clients within the service who do not receive the additional treatment. Alternatively, it may also be possible to compare the outcomes to a similar service that does not provide the additional treatment.

One of the strengths of the ‘naturalistic effectiveness’ approach in this proposal is that it will examine Early Intervention for Psychosis ‘effectiveness’ (the results obtained in ‘real world’ clinical practice) as opposed to efficacy (the potential of a treatment under ‘controlled’ conditions) (Ruggeri & Tansella, 1995). Approaches may seem to work well in experimental conditions, but fail to translate to clinical benefits in the ‘real world’.

Outcome data is currently available on the first dozen people who have been comprehensively assessed 6-monthly until discharge from Totara House, these people should be followed for a number of years to assess future service utilisation. Once a large number of first episode psychosis clients have been followed up post-discharge, inferences can be made as to whether or not Early Intervention makes a long-term difference. This project is currently before the Canterbury Ethics Committee. Given the low incidence of first episode psychosis, it is essential that this type of evaluation be conducted in multiple sites in order to obtain a large enough number of clients to provide meaningful data.

Catts (2001) has suggested that there be a non-disclosure of service-identified data, and that the project have ownership of the data. While there is merit in comparing outcomes across services, for example to see in what areas certain services are doing well and adapting clinical practice accordingly, it is risky if outcome data is misinterpreted by people who don't understand the complexity of the evaluation process. The MHCAOS study has a memorandum of understanding with each DHB that states that the "personnel directly involved with funding will not have access to identifying site data without the express permission of the participating site" (http://www.hrc.govt.nz/download/pdf/caosquestions.pdf).

In order to lobby for more resources it is essential to have good information regarding what Early Intervention Services do and what outcomes they achieve. The evaluations outlined in this document will contribute quality information that will influence key decision-making in the future. However, in order to obtain quality information, a strong commitment from funders is required so that clinicians are not burdened with additional 'paper-work'. Without clinicians 'on-board' in this endeavour, it is doubtful as to whether meaningful results can be obtained.

Early Intervention for Psychosis Services can be justified on humanitarian grounds; it is humane to treat people with first episode psychosis as soon as possible after (or before) symptoms develop. The concept of Early Intervention has excellent 'face validity' and common sense suggests that it should be embraced. However, it is unethical to use scarce resources on unproven treatments. Core elements of Early Intervention for Psychosis Services have been poorly evaluated both nationally and internationally. Early Intervention has been shown to increase quality of life for those with first episode psychosis (A. K. Malla, 2001), and there is some evidence that these services are cost effective (Mihalopoulos et al., 1999). Overall, Early Intervention for Psychosis Services have a significant positive effect for clients while in treatment (Larsen et al., 2001; Linszen et al., 2001). The proposed template for evaluation of Early Intervention for Psychosis Services in New Zealand will add to this 'black box' approach to showing change over time. In order to identify the essential elements of Early Intervention for Psychosis Services, quasi-experimental designs, as discussed in this document, and detailed by McGlashan (1996b) and Edwards & McGorry (2002) are required.

"The concept of specialised services for first episode psychosis is relatively new. Continued development and expansion of such services will depend on the benefits and costs being determined, and then communicated clearly to all stakeholders" (Edwards & McGorry, 2002; page 126).

Appendix I
Description of Early Intervention for Psychosis Services in New Zealand

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Waitemata

Name of Service: EPI Centre (Early Psychosis Intervention)

Contact Address: EPI Centre, 3rd Floor, Snelgar Building, Waitakere Hospital, Private Bag 93115, Henderson, Waitakere City, Auckland

Phone: 09 839 0507

Fax: 09 839 0536

Contact Person/email: Megan Jones
megan.jones@waitematadhb.govt.nz

Size of the population served: Approx 25,000 (in West Auckland)

Breakdown of staff by profession and FTE

Psychiatrist: Mike Ang

Psychiatric Registrar: 0.5 (John Staynoff)

House Surgeon: –

Social worker: Brendan Porter & Dael Conway

Occupational Therapist: Isla Emery

Nurse: Joy Skelton

Maori Health Worker: Harry Haitana (+ Tracey Anne Heremoi and Hoani Paku from MOKO Services)

Employment officer: –

Recreation officer: –

Consumer Representative: –

Clinical Psychologist: Katie Harrison

Administration Support: 0.6 (Jenni Gibson)

Other: (Team Co-ordinator) – Megan Jones

Number of clients in service: 89

Age range of clients: 14-30 yrs

Acceptance criteria: 14-30 yrs, address in Western District, 1st Episode Psychosis

Exclusion criteria: If previously treated for Psychosis – or not meeting service criteria.

Caseload numbers

Case manager/MDT:	15 clients per full-time Case Manager
Psychiatrists:	0.8 Psychiatrists time 0.5 Registrar (89 clients)
Psychologists [if not case managers]:	5 clients – Case Management 15 Psychological Tx

Assessment process

On average, how soon after referral is assessment conducted?	Within 3 days.
Waiting list?	No.
Interview – what staff are involved with the interview?	Case Manager only. (If other MHS – on joint visit) and Co-worker or Psychiatrist.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	GAF, HoNOS, Audit, Leeds.
Are any biological tests available to be administered during the assessment? What are they?	EEG, CT, FBC.
What cultural input is there into the assessment process?	
Maori:	Yes – if client is Maori, then Maori Case Manager appointed.
Pacific Island:	EPI Centre has access to PI Workers through Isalei (WDHB).
Other:	Yes – if required.
How regularly is the MDT assessment of client needs conducted?	Within 1 month and 3 months thereafter.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Yes, through MOKO Services (WDHB).
Is support/supervision available for others members of the MDT?	Yes – Performance Management System and Clinical Supervision.

What on-going education is available for staff?	Inservice and external training.
Is research/evaluation of your service conducted?	Yes **Audit?**
How do you maintain liaison with other mental health services (community teams, inpatients etc)?	Regular liaison meetings, both clinical and management.
How do you maintain liaison with community agencies?	No formal arrangements, however – systems set up to send letters to GP's regularly and liaison meetings held as necessary.
Please describe any family input into the evaluation of your service:	Evaluation feedback from multifamily group (psychoed).
Please describe any service user input into the evaluation of your service:	Nil as yet. This is an area that requires development.
Please describe any family input into the planning of the services for clients:	–
Please describe client input into any planning planning of the service:	–
Discharge criteria for your client:	Maximum of 18 months in service, move out of area unable to engage, inappropriate for service, early discharge.

Description of Service

How would you describe your model of care? Using Early Intervention model, we provide assertive/intensive Case Management – medical and psychological treatments, cultural therapy and support, groups, social and occupational interventions, family work through multi-disciplinary team, utilising Biopsychosocial model.

What are the key elements of the EI service you deliver? Assertive follow-up, intensive Case Management. Engagement is a key feature of what we do well, compared with other mainstream services.

How do you integrate principles of EI into your practice? Staying close to EPPIC – Early Intervention model.

How could you improve your service? Team training, gain further resource to expand service into other districts in WDHB. Employ Consumers and family/consumer feedback and evaluation systems to be set up.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients:
} Multi-family Psycho-Education Group –
} see McFarlane's work
} Psycho-education for the family

On-going family support group: Currently utilising one set up by acute inpatient unit.

Recreation group: RAP Group. Activities group runs on a Friday afternoon.

Other – specify: –

Other specialist interventions offered: –

Do you have any comments regarding changes to the NZ Guidance Note for Early Intervention published by the Mental Health Commission (1999)? Standardisation of model and what constitutes EI, Nationally would go a long way towards credibility and consistency.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W & O	3x staff training in family therapy and team has had training in IMHC.
Psychological therapy	W	Psychologist on team uses CBT
Vocational support	W	Occupational therapist on team
Dietitian	W & O	Nurses on team have provided education on diet.
Alcohol & drug	W	2x staff with A & D trained background. Team has had training (2 day workshop).
Anxiety	W	Psychologist and Nurse on team
Stress management		Psychologist for advanced interventions
Crisis intervention between 9-5	W	Duty person system enables staff to be available for triage of crisis.
Crisis intervention outside 9-5	O	Goes to Crisis Service ATT (WDHB)
Housing & accommodation (structured)	O	Social Workers on team assist in finding accommodation.
Respite facilities	O	CATT have respite budget.
Hospitalisation	O	Use of adult acute wounds – WDHB and Child and Family Unit = ADHB
Describe cultural processes used for Maori clients		Maori clinician always involved and establishes need for cultural assessment.
Describe cultural processes used for Pacific Island clients		Automatic referral to PI Services.

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Auckland

Name of Service: Kari Centre (Community Child Adolescent & Family Services)

Contact Address: YEIS, Kari Centre, Building 54-76 Grafton Road, Auckland

Phone: 09 307 4949 ext. 5424

Fax: 09 307 2889

Contact Person/email: Alison Towns
alisont@adhb.govt.nz

Size of the population served: 93,294 (1996 census) plus expected increase: 24,354 to 2001

Breakdown of staff by profession and FTE

Psychiatrist: 0.6

Psychiatric Registrar: 1.0

House Surgeon: 0

Social worker: 2.0

Occupational Therapist: 2.0

Nurse: 1.0

Maori Health Worker: 0.5 0.5 Pacific Island

Employment officer: –

Recreation officer: 0 0.5 Community Support Worker

Consumer Representative: Two employed, unsure of FTE. I think four total

Clinical Psychologist: 3.2

Administration Support: 0.5

Other: 1 Psychologist, 1 Psychology intern

Number of clients in service: 56

Age range of clients: 13-20 yrs

Acceptance criteria: 13-18 yrs. Symptoms of psychosis or bipolar or severe OCD or high risk for psychosis

Exclusion criteria: Depression, anxiety, borderline symptoms without symptoms of psychosis

Caseload numbers

Case manager/MDT: 10

Psychiatrists: None specified

Psychologists [if not case managers]: N/A

Assessment process

On average, how soon after referral is assessment conducted?	Immediate if urgent. Within the week if not.
Waiting list?	No.
Interview – what staff are involved with the interview?	Psychiatrist or psychiatric registrar if available and a case manager or two case managers if no registrar/psych available.
Are the family invited to attend?	Yes.
Are any psychometric measures used?	HoNOS.
Are any biological tests available to be administered during the assessment? What are they?	At discretion of psychiatrist.
What cultural input is there into the assessment process?	
Maori:	Maori.
Pacific Island:	Pacific Island.
Other [?Interpreter etc.]:	If necessary.
How regularly is the MDT assessment of client needs conducted?	Weekly if necessary due to activity. 1-3 monthly if not acutely distressed.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Under development.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	Child Adolescent diploma of MH and weekly in house training and other workshops seminars on request.
Is research/evaluation of your service conducted?	Of parts of service. Also currently part of CAOS. Audits conducted regularly.
How do you maintain liaison with other mental health services?	Liaison staff member assigned to each community team. Team Leader liaises with external agencies. CYHT, Richmond Fellowship, CYFS, Domestic

	Violence Centre, Health Promotion and specialist other liaison service with schools.
How do you maintain liaison with community agencies?	Have developed a personal liaison service for this purpose (LEAP Project).
Please describe any family input into the evaluation of your service:	Consumer rep regularly consult with families regarding their satisfaction through survey. Also parent support group run by service.
Please describe any service user input into the evaluation of your service:	Consumer Rep attend all team leader meetings Consumer reps employed (2) by Kari Centre.
Please describe any family input into the planning of the services for clients:	Via consumer rep through attendance at all planning meetings.
Please describe client input into any planning of the service:	Via satisfaction surveys and two consumer rep employees and consumer rep attendance at all meetings.
Discharge criteria for your client:	Two years in service although great flexibility around this – usually when transition out of school and into community.

Description of Service

How would you describe your model of care? Follow the EPICC model from Melbourne – early identification and intervention, client focused meeting systemic.

What are the key elements of the EI service you deliver? Mental stat monitor, Intensive intervention, Family therapy, CBT for management of psychosis and related symptoms, trauma therapy.

How do you integrate principles of EI into your practice? Everywhere; identification through psychoeducation in schools.

How could you improve your service? Add in more time for evaluation and research.

Do you have the resources to see clients in their environment of choice? Almost; need more cars.

Groups [briefly describe]

Psycho-education for the clients:	Individually.
Psycho-education for the family:	Individually.
On-going family support group:	Held monthly.

Recreation group:	Operating through our youth transitional programme daily; also run holiday programme.
Other – specify:	Numerous; self-esteem, focus group, vocational group, skills for living, sexuality group etc.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy	W
Vocational support	W
Dietitian	O
Alcohol & drug	W + O
Anxiety	W
Stress management	W
Crisis intervention between 9-5	W
Crisis intervention outside 9-5	W
Housing & accommodation (structured)	O
Respite facilities	Organised by team provided Outside
Hospitalisation	O
Describe cultural processes used for Maori clients involved at point of referral; part of assessment Advise on cultural intervention, part of MDT meetings.	
Describe cultural processes used for pacific island clients As above.	

Other specialist interventions offered: access to abuse services

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Auckland
Name of Service:	Taylor Centre
Contact Address:	308 Ponsonby Road, Ponsonby, Auckland
Phone:	09 376 1054
Fax:	09 360 1651
Contact Person/email:	Malcolm Stewart malcolmst@adhb.govt.nz
Size of the population served:	56,000

Breakdown of staff by profession and FTE

Psychiatrist:	0.6
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	0.2
Occupational Therapist:	0.2
Nurse:	0.8
Maori Health Worker:	–
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	0.3
Administration Support:	–
Other: Integrated Mental:	1.5, Health Care Worker
Number of clients in service:	30-36
Age range of clients:	18-46 yrs
Acceptance criteria:	1st Episode psychosis
Exclusion criteria:	personality disorder dominant, drug induced psychosis

Caseload numbers

Case manager/MDT:	14 clients/keyworker FTE
Psychiatrists:	55 per psychiatrist FTE
Psychologists [if not case managers]:	Does not see every client engaged PRN

Assessment process

On average, how soon after referral is assessment conducted?	3 days after inpatient contact, 3 days after crisis team contact.

Waiting list?	No.
Interview – what staff are involved with the interview?	Psychiatrist and potential EZ Keyworker.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	HoNOS, LSP, other measures currently under review.
Are any biological tests available to be administered during the assessment? What are they?	No, unless specifically clinically indicated.
What cultural input is there into the assessment process?	
Maori:	Maori Mental Health Service engaged if appropriate.
Pacific Island:	PI Liaison Worker engaged if appropriate.
Other [?Interpreter etc.]:	If needed.
How regularly is the MDT assessment of client needs conducted?	No regular review schedule as clinically indicated.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	As arranged by their service.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	As determined through Annual Review and otherwise negotiated. Current upskilling in EPPIC approach for whole team.
Is research/evaluation of your service conducted?	Yes?
How do you maintain liaison with other mental health services?	Shared space and team membership. Attendance of service representatives at inpatient unit.
How do you maintain liaison with community agencies?	Informal.
Please describe any family input into the evaluation of your service:	Family evaluation questionnaire as part of Audit 2000.

Please describe any service user input into the evaluation of your service: Consumer advocate for Taylor Centre.

Please describe any family input into the planning of the services for clients: As above.

Please describe client input into any planning of the service: Client feedback questionnaire as part of Audit 2000.

Discharge criteria for your client: 2 years (flexible).

Description of Service

How would you describe your model of care? Has been an integrated Mental Health Care based program. Recently moving to EPPIC based model to align with services in other ADHB service.

What are the key elements of the EI service you deliver? Assertive, intensive intervention. Strong focus on family as agents for support and change. Strong bio-psychological focus with emphasis on optimal use of medication and early skills-based psychosocial intervention.

How do you integrate principles of EI into your practice? Major team focus.

How could you improve your service? Improve routine data collection and analyse. Improve pathway definition while monitoring necessary flexibility. Work on improving social re-engagement and function support. Further improve drug and alcohol management shown to be a predictor of adverse outcome in team.

Do you have the resources to see clients in their environment of choice? Usually.

Groups [briefly describe]

Psycho-education for the clients: Access to “dealing with distress”, “A & D”, Depression Group.

Psycho-education for the family: Mostly done as individual family group.

On-going family support group: Intending to start multi family group program soon.

Recreation group: –

Other – specify: –

***Availability of Specialist intervention* [briefly describe]**

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy	W
Vocational support	W
Dietitian	–
Alcohol & drug	W
Anxiety	W
Stress management	W
Crisis intervention between 9-5	Within centre
Crisis intervention outside 9-5	Within centre until 11pm, other 11pm-3am
Housing & accommodation (structured)	O
Respite facilities	O
Hospitalisation	O
Describe cultural processes used for Maori clients Outside Team	
Describe cultural processes used for pacific island clients Outside Team within Centre	

Other specialist interventions offered: –

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Auckland
Name of Service:	Manaaki Community Mental Health Centre – FEP
Contact Address:	15 Pleasant View Road, Panmure, Auckland
Phone:	09 570 6519
Fax:	09 570 6520
Contact Person/email:	Mark Rose mrose@adhb.govt.nz
Size of the population served:	80,000 (approximately)

Breakdown of staff by profession and FTE

Psychiatrist:	0.55 (Dr Meryl Bacon)
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	1.0 (Wendy Gooch)
Occupational Therapist:	0.5 (Shoba Nayar)
Nurse:	0.5 (Fiona Turner)
Maori Health Worker:	0.2 (Wiki Pene)
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	1.0 (Mark Rose)
Administration Support:	–
Other: Pacific Island Health Work:	0.2 (Siaki)
Number of clients in service:	27
Age range of clients:	18-38 yrs
Acceptance criteria:	Psychotic symptoms, drug induced psychosis, inclusive diagnostically. 18-35 yrs: First contact with mental health. Little or no input (a little discretionary).
Exclusion criteria:	–

Caseload numbers

Case manager/MDT:	10 clients/FTE – excluding Psychiatrists time
Psychiatrists:	–
Psychologists [if not case managers]:	–

Assessment process

On average, how soon after referral is assessment conducted?	ASAP – within 2 weeks.
Waiting list?	No.
Interview – what staff are involved with the interview?	At present the psychiatrist is involved in most assessment interviews with one or two other staff members and cultural staff member if required or appropriate.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	PANSS, HoNOS.
Are any biological tests available to be administered during the assessment?	Nil.
What cultural input is there into the assessment process?	
Maori:	At most initial interviews: If not the client is met with as soon as possible after the initial interview by the Maori Health Worker. Cultural assessment completed.
Pacific Island:	Same as above.
Other [?Interpreter etc.]:	Interpreters are supplied if necessary.
How regularly is the MDT assessment of client needs conducted?	Weekly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Yes.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	PANSS training: A & D dual diagnosis: EIS conference: Hearing voices seminar and others as negotiated with Management.
Is research/evaluation of your service conducted?	Internal/informal assessment process using the HoNOS/PANSS and simple data collection.

How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Monthly Early Intervention meetings – includes EIS services from Auckland DHB and Waitemata presently. Inpatient – informal meetings when clients are admitted to hospital. Formally – Conolly Unit comes out to Manaaki on a weekly basis although this rarely happens.
How do you maintain liaison with community agencies?	Letter to GP prior to discharge: Social Worker meets with community agencies, lawyers, WINZ, probation, dual diagnosis, community support workers: Joint meetings or telephone calls with client consent.
Please describe any family input into the evaluation of your service:	Family is able to contact consumer representative.
Please describe any service user input into the evaluation of your service:	Nil at present.
Please describe any family input into the planning of the services for clients:	Nil.
Please describe client input into any planning of the service:	Consumer representative was involved in meetings when first setting up service in 2001 (January).
Discharge criteria for your client:	End of 2 years: Client well and negotiate discharge to GP or self. Geographical move: lost to follow-up: Negotiated discharge if client is stable on meds but not utilising FEP service.

Description of Service

How would you describe your model of care? Intensive family and client focused – MDT. Working toward utilising recovery models and avoiding relapse.

What are the key elements of the EI service you deliver?
Cultural input – involvement as soon as possible and throughout
Medication – treatment of symptoms – antidepressants/antipsychotics/mood stabilisers
Psyche input – understanding psychotic experience
Groups – Education and Social:
Nurse – medication review and monitoring symptoms
Family input – developing part of service

How do you integrate principles of EI into your practice? We look to a multi disciplinary approach and attempt to cover all aspects of the individual life. We attempt an aggressive follow-up.

How could you improve your service? Access to Maori and Pacific Island clinicians: Family Support group(s): More emphasis on dual diagnosis: EIS specific residential and inpatient facility.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients:	Currently running a mind matters group. Information about psychosis, medication, stigma, recovery process resources.
Psycho-education for the family:	Nil.
On-going family support group:	Nil.
Recreation group:	Social group – clients choose activities they wish to be involved in and these are scheduled over 8-10 week periods and then reviewed.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Social worker/family worker – attempts to engage family and to facilitate education and copying.	
Psychological therapy	W
Looks at symptoms; coping; depression and or anxiety; Also looks at the making sense of psychotic experience.	
Vocational support	W
Occupational therapist – new role on team. Beginning to look at appraising skills and looking at work/vocational options.	
Dietician	O
A group has been run, which a couple of FEP clients have been involved in, which looks at diet.	
Alcohol & drug	
Nothing has occurred along these lines yet: our nurse and social worker have just completed the dual diagnosis training. Manaaki has a dual diagnosis worker available for groups.	
Anxiety	W
OT & Psychological input	
Stress management	W
OT works with stress management. We are also setting up a group for anxiety/stress management for later in the year.	

Crisis intervention between 9-5	W O	If it can be managed by FEP we do this Crisis team is available if crisis becomes too difficult or if FEP psychiatrist not around.
Crisis intervention outside 9-5	O	Crisis team becomes involved in after hours crises.
Housing & accommodation (structured)	W	
Nurse and Social worker look at housing requirements and submit applications.		
Respite facilities	O	
This is organised through our crisis team at Manaaki. We alert them for the need, they assess and organise this.		
Hospitalisation	O	
Crisis team will usually organise hospital beds. This is done via co-ordination with FEP team unless after hours.		
Describe cultural processes used for Maori clients		
Maori health worker becomes involved. They complete a cultural assessment and provide feedback to the team. Will organise other Maori input (Tohinga) if required: Will involve Maori CSW's.		
Describe cultural processes used for Pacific Island clients		
PI health worker becomes involved as early as possible. They complete a cultural assessment: Provide feedback to FEP team. Will organise Lotofale (PI CSW's) involvement. Will organise interpreters. Sometimes stay closely involved with family where appropriate.		

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Auckland
Name of Service:	Cornwall House CMHC
Contact Address:	2 Onslow Avenue, Epsom, Auckland
Phone:	09 623 5780
Fax:	09 623 5781
Contact Person/email:	Dr Nada
Size of the population served:	75,000

Breakdown of staff by profession and FTE

Psychiatrist:	0.2
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	–
Occupational Therapist:	1.0
Nurse:	0.8
Maori Health Worker:	Access as required - shared with other teams
Employment officer:	–
Recreation officer:	–
Consumer Representative:	As required
Clinical Psychologist:	1.0
Administration Support:	As required
Other:	
Number of clients in service:	14
Age range of clients:	19-35 yrs
Acceptance criteria:	} 18-35 yrs, first episode psychosis
Exclusion criteria:	}

Caseload numbers

Case manager/MDT:	Utilise a team case management approach. Caseload divided for administration purpose.
Psychiatrists:	**–**
Psychologists [if not case managers]:	**–**

Assessment process

On average, how soon after referral is assessment conducted?	Within a week.
Waiting list?	No.

Interview – what staff are involved with the interview?	Psychiatrist and one or two other staff members.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	Yes, PANSS, HoNOS.
Are any biological tests available to be administered during the assessment?	Yes.
What are they?	Baseline bloods, CT scan.
What cultural input is there into the assessment process?	
Maori:	Have cultural services available to the CMHC's with joint Maori and PI appointments who have input into the assessment according to clients wishes.
Pacific Island:	See above.
Other:	As needed.
How regularly is the MDT assessment of client needs conducted?	Weekly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Do not have cultural worker based within the team.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff:	On-going education is supported.
Is research/evaluation of your service conducted?	Yes **Audit?** Yes
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Maintain links and ongoing liaison with other services.
How do you maintain liaison with community agencies?	On a case by case basis as required.
Please describe any family input into the evaluation of your service:	Families complete satisfaction questionnaires.

Please describe any service user input into the evaluation of your service: Clients complete satisfaction questionnaires.

Please describe any family input into the planning of the services for clients: Education group for family weekly for 10-12 week or ongoing.

Please describe client input into any planning of the service: Consumer.
`

Discharge criteria for your client: Maximum length of time is 2 years. Can be discharged prior.

Description of Service

How would you describe your model of care? Shared care.

What are the key elements of the EI service you deliver? Intensive follow-up and management of clients. Ongoing monitoring of mental state. Medical reviews. Various therapies and interventions according to clients needs.

How do you integrate principles of EI into your practice? The favourable client/staff case load allows our team to integrate EI Principles into our clinical practice.

How could you improve your service? Having access to Early Intervention Respite facilities.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients: One to one psycho-education (occasionally in groups) for clients but most psycho-education is with family and client over 1-2 sessions.

Psycho-education for the family: –

On-going family support group: Monitor family support group, open to families of continuing case clients.

Recreation group:

Other – specify: Stress Management Group.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work Based on IMH care approach	W
Psychological therapy Provided within the team in weekly sessions.	
Vocational support OT to assist as required.	W
Dietitian Not utilised	O
Alcohol & drug Refer to Dual Diagnosis worker.	O
Anxiety Included with psycho-education.	W
Stress management Stress buster group.	W
Crisis intervention between 9-5	W
Crisis intervention outside 9-5 Buchanan Clinic (Rehab Centre)	W
Housing & accommodation (structured) Rarely used.	O
Respite facilities Rarely used.	O
Hospitalisation (DAO available)	W
Describe cultural processes used for Maori clients On first contact MHW is involved.	O
Describe cultural processes used for Pacific Island clients Community Support Worker and Liaison Worker.	O

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Auckland

Name of Service: St Lukes FEP

Contact Address: 615 New North Road, Auckland

Phone: 09 845 0940

Fax: 09 845 0941

Contact Person/email: J Geekie
jgeekie@adhb.govt.nz

Size of the population served: 110,000

Breakdown of staff by profession and FTE

Psychiatrist: 0.7

Psychiatric Registrar: –

House Surgeon: –

Social worker: –

Occupational Therapist: 0.8

Nurse: 0.5

Maori Health Worker: –

Employment officer: –

Recreation officer: –

Consumer Representative: –

Clinical Psychologist: 1.0

Administration Support: –

Other: Family Worker 1.0

Number of clients in service: 35 (Cap)

Age range of clients: 17-35 yrs

Acceptance criteria: First Episode/Presentation, Not previously “adequately” treated, Geographical

Exclusion criteria: Previous treatment (adequate) for psychosis, out of area

Caseload numbers

Case manager/MDT: We case manage “as a team”, 35 clients/4.0 FTE

Psychiatrists: –

Psychologists [if not case managers]: –

Assessment process

On average, how soon after referral is assessment conducted? About 1 week (or less).

Waiting list?	Yes.
Interview – what staff are involved with the interview?	FEP staff x2 – determined by appropriateness/availability.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	PANSS, HoNOS.
Are any biological tests available to be administered during the assessment? What are they?	A routine organic screen is always performed as part of an assessment including blood screen and CT & EEG.
What cultural input is there into the assessment process?	
Maori:	Liaison with Maori MHS.
Pacific Island:	Liaison with PI MHS invited to attend.
Other:	If necessary.
How regularly is the MDT assessment of client needs conducted?	We review client fortnightly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	–
Is support/supervision available for others members of the MDT?	Yes – individual and team.
What on-going education is available for staff?	Informal.
Is research/evaluation of your service conducted?	Yes **Audit?** Yes
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Monthly psychosis interest group meetings and EI services.
How do you maintain liaison with community agencies?	Usually case by case.

Please describe any family input into the evaluation of your service: Informal feedback.

Please describe any service user input into the evaluation of your service: We have a “home-made” questionnaire, sent after 1 year and after discharge to clients.

Please describe any family input into the planning of the services for clients: Informal feedback via family support group.

Please describe client input into any planning of the service: We used to have x2 annual consumer meetings.

Discharge criteria for your client:
(1) 2 year max (with some flexibility).
(2) Mutually agreed prior to above.

Description of Service

How would you describe your model of care? Mixture of everything – “EPPIC Model”.

What are the key elements of the EI service you deliver? Comprehensive assertive multi-disciplinary intensive follow-up.

How do you integrate principles of EI into your practice? Team philosophy.

How could you improve your service? Consumer Buddy – as part of cultural workers service.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients: Three or so times per year - usually eight weekly sessions.

Psycho-education for the family: –

On-going family support group: Monthly – evening.

Recreation group: Weekly – Monday afternoons.

Other – specify: Philosophy Group.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy	W
Vocational support	W
Dietitian	
Alcohol & drug	O
Anxiety	W
Stress management	W
Crisis intervention between 9-5 We work alongside CMHC.	W/O
Crisis intervention outside 9-5 Both parts of same CMHC.	W/O crisis team
Housing & accommodation (structured)	O
Respite facilities	O
Hospitalisation	O
Describe cultural processes used for Maori clients Involvement with Maori MHS.	
Describe cultural processes used for Pacific Island clients Involvement with PI MHS.	

Other specialist interventions offered: Other cultural input; safe etc as need by case.

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Counties Manukau
Name of Service:	Hartford House/Early Psychosis Intervention Team
Contact Address:	Hartford House, PO Box 23481, Papatoetoe, Auckland
Phone:	09 279 5112
Fax:	09 279 5113
Contact Person/email:	R Stutterd RZStutterd@middlemore.co.nz
Size of the population served:	Currently only able to cover 1/2 of region – approx 150,000

Breakdown of staff by profession and FTE

Psychiatrist:	–
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	–
Occupational Therapist:	–
Nurse:	2.0
Maori Health Worker:	1.0 Support Worker
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	–
Administration Support:	–
Other:	
Number of clients in service:	29
Age range of clients:	16-25 yrs
Acceptance criteria:	1st presentation psychosis
Exclusion criteria:	Organic, psychosis secondary

Caseload numbers

Case manager/MDT:	15
Psychiatrists:	–
Psychologists [if not case managers]:	–

Assessment process

On average, how soon after referral is assessment conducted?	48 hours.

Waiting list?	No.
Interview – what staff are involved with the interview?	Nursing, if able, both nursing staff.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	–
Are any biological tests available to be administered during the assessment? What are they?	–
What cultural input is there into the assessment process?	
Maori:	Yes.
Pacific Island:	Pacific Island clients usually referred to Pacific Island Services.
Other:	–
How regularly is the MDT assessment of client needs conducted?	As needed.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers:	Yes.
Is support/supervision available for others members of the MDT:	Yes.
What on-going education is available for staff:	Currently nil.
Is research/evaluation of your service conducted?	No **Audit?**
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Email, face to face, phone.
How do you maintain liaison with community agencies?	Support worker liaison person for mutual contact.
Please describe any family input into the evaluation of your service:	Questionnaire given to family, their choice.
Please describe any service user input into the evaluation of your service:	As above.

Please describe any family input into the planning of the services for clients: Only individually.

Please describe client input into any planning of the service: Nil.

Discharge criteria for your client: Non-attendance, completed “programme”.

Description of Service

How would you describe your model of care? Intensive Case Management, Client focused, EPPIC.

What are the key elements of the EI service you deliver? Intensive Case Management, Psycho-education, dual diagnosis very limited resources current sealing of 30. What do we do well? Everything.

How do you integrate principles of EI into your practice? Supervision, daily team meetings etc.

How could you improve your service? More staff resources.

Do you have the resources to see clients in their environment of choice? We are a home-based service.

Groups [briefly describe]

Psycho-education for the clients: Individual.

Psycho-education for the family: Individual.

On-going family support group: –

Recreation group: Support worker, three clients at a time.

Other – specify: –

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy Referred to appropriate Psychologist.	O
Vocational support Support worker	W
Dietitian Referral to Middlemore.	O
Alcohol & drug Staff trained in Dual Diagnosis.	W
Anxiety Basic counselling from team, otherwise referral to psychologist.	O & W
Stress management Basic Management from staff, or referral to Psychologist.	O & W
Crisis intervention between 9-5	W
Crisis intervention outside 9-5 CATT Tiahomai.	O
Housing & accommodation (structured) Support Worker.	W
Respite facilities All services arrange respite care	W
Hospitalisation	W
Describe cultural processes used for Maori clients Cultural assessment if requested. Support Worker also Maori Health Worker.	
Describe cultural processes used for Pacific Island clients Nil.	

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Counties Manukau
Name of Service:	Campbell Lodge, Early Intervention Service, Child & Family Mental Health
Contact Address:	Private Bag 93311, Otahuhu, Auckland
Phone:	09 276 0200
Fax:	09 276 0197
Contact Person/email:	Kay McCabe kayandjohn@hotmail.com
Size of the population served:	–

Breakdown of staff by profession and FTE

Psychiatrist:	0.1
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	0.5
Occupational Therapist:	–
Nurse:	0.2
Maori Health Worker:	0.2
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	0.3
Administration Support:	–
Other:	–
Number of clients in service:	20
Age range of clients:	14-18 yrs
Acceptance criteria:	Some evidence of psychosis/bipolar disorder
Exclusion criteria:	Brain injury, IQ below 60

Caseload numbers

Case manager/MDT:	10
Psychiatrists:	20 (oversight of 20 clients in total)
Psychologists [if not case managers]:	10

Assessment process

On average, how soon after referral is assessment conducted?	One week.

Waiting list?	No.
Interview – what staff are involved with the interview?	–
Are the family invited to attend?	Absolutely.
Are any psychometric measures used? What are they?	Not regularly/routinely have used HoNOS, CA and BPRS also CDI.
Are any biological tests available to be administered during the assessment? What are they?	Routinely full blood count, where indicated CT scan.
What cultural input is there into the assessment process?	
Maori:	Invite Campbell Lodge Maori staff.
Pacific Island:	Invite Campbell Lodge PI staff.
Other:	If required.
How regularly is the MDT assessment of client needs conducted?	Weekly team review, monthly, bi-monthly seen by Psychiatrist.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	From Campbell Lodge – Yes.
Is support/supervision available for others members of the MDT?	Supervision – Yes.
What on-going education is available for staff?	Little.
Is research/evaluation of your service conducted?	No **Audit?** No
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Very little liaison maintained. A monthly meeting is available in central Auckland but I don't work Friday's.
How do you maintain liaison with community agencies?	Regular p/c to school or workplace where client attends. Occasional letters to GP's.

Please describe any family input into the evaluation of your service:	–
Please describe any service user input into the evaluation of your service:	–
Please describe any family input into the planning of the services for clients:	–
Please describe client input into any planning of the service:	–
Discharge criteria for your client:	6-12 months – no symptoms. Ongoing non-attendance after repeated attempts to re-engage family.

Description of Service

How would you describe your model of care? Intensive case management, some integrated mental health care, some structural family therapy.

What are the key elements of the EI service you deliver? Cultural and family involvement is strong. Assertive follow-up of clients in very disintegrated and poor families, strong links to local NGO's which help us out.

How do you integrate principles of EI into your practice? Ongoing follow-up even after families and clients drop out of the service.

How could you improve your service? Barely existing as a service.

Do you have the resources to see clients in their environment of choice? Lots of home visits where possible.

Groups [briefly describe]

Psycho-education for the clients:	No.
Psycho-education for the family:	Only one attempt.
On-going family support group:	No.
Recreation group:	Outside of Campbell Lodge.
Other – specify:	–

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy	W
Vocational support	O
Dietitian	O
Alcohol & drug But consistently ineffective.	O
Anxiety	W
Stress management	W
Crisis intervention between 9-5 No DAO - use adult services, but crisis intervention within Campbell Lodge.	
Crisis intervention outside 9-5 Adult services.	
Housing & accommodation (structured)	O
Respite facilities Organised by Campbell Lodge.	W
Hospitalisation Within the health system at Tiaho Mai (adult hospital) and Child and Family Unit at Starship.	
Describe cultural processes used for Maori clients Seen by Campbell Lodge and Maori staff and local Maori NGO services.	
Describe cultural processes used for Pacific Island clients Seen by Campbell Lodge Pacific Island staff.	

Early Intervention for Psychosis Services in NZ: Description of Services.

DHB:	BOP
Name of Service:	Tauranga Hospital, CAMHS
Contact Address:	Private Bag, 12024, Tauranga
Phone:	07 579 8906
Fax:	07 578 7961
Contact Person/email:	Leo Nickingston leonickingston@bopdhb.govt.nz
Size of the population served:	130,000

Breakdown of staff by profession and FTE

Psychiatrist:	–
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	–
Occupational Therapist:	–
Nurse:	Leonie Kingston
Maori Health Worker:	Nicky Sullivan TPH – (separate service)
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	–
Administration Support:	–
Other:	–
Number of clients in service:	16 – ideally 1-15
Age range of clients:	15-25 yrs
Acceptance criteria:	1st Episode Psychosis
Exclusion criteria:	Low IQ. Extensive substance abuse may be better served by Dual Diagnosis.

Caseload numbers

Case manager/MDT:	N/A
Psychiatrists:	–
Psychologists [if not case managers]:	–

Assessment process

On average, how soon after referral is assessment conducted?	24 hours.

Waiting list?	No.
Interview – what staff are involved with the interview?	Myself. However, they have often been seen by O/C Reg.
Are the family invited to attend?	Yes.
Are any psychometric measures used?	Sometimes BPRS.
Are any biological tests available to be administered during the assessment? What are they?	Usually full bloods and CT.
What cultural input is there into the assessment process?	
Maori:	–
Pacific Island:	–
Other [?Interpreter etc.]:	–
How regularly is the MDT assessment of client needs conducted?	–

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	–
Is support/supervision available for others members of the MDT?	–
What on-going education is available for staff:	–
Is research/evaluation of your service conducted?	No **Audit?**
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	By attending the sector clinical meetings. Good open liaison is available with all allied services as needs to be in sole Early Intervention position.
How do you maintain liaison with community agencies?	Only p.r.n. Infrequently.
Please describe any family input into the evaluation of your service:	Still developing customer/family satisfaction survey.

Please describe any service user input into the evaluation of your service: –

Please describe any family input into the planning of the services for clients: –

Please describe client input into any planning of the service: –

Discharge criteria for your client: Case Management for 2 years usually.

Description of Service

How would you describe your model of care? Intensive client and family Case Management with a strong psycho-educational approach, on an individual family/client basis.

What are the key elements of the EI service you deliver? Assessment and monitoring of mental state education. Advocacy for Early Intervention proven interventions with the sector Psychiatrists.

How do you integrate principles of EI into your practice? By attempting to meet individual needs in the community during the recovery phase. DIFFICULT

How could you improve your service? With a more Early Intervention focused multidisciplinary team identified as available resource. Better community services that are youth/young people focused.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients: –

Psycho-education for the family: –

On-going family support group: –

Recreation group: –

Other – specify: –

Availability of Specialist intervention **[briefly describe]**

W = Within Team O = Other Service Provider

Family work	–	
Psychological therapy	O	
Vocational support	O	
Dietitian	O	
Alcohol & drug	O	
Anxiety	O	
Stress management	O	
Crisis intervention between 9-5		By myself with assistance as required.
Crisis intervention outside 9-5		Crisis team.
Housing & accommodation (structured)	–	
Respite facilities	–	
Hospitalisation	–	Acute adult word prn.
Describe cultural processes used for Maori clients	–	
Describe cultural processes used for pacific island clients	–	

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: BOP

Name of Service: Voyagers Child Adolescent & Family Service

Contact Address: 11 Merritt Street, Whakatane

Phone: 07 308 8803

Fax: 07 308 8133

Contact Person/email: Ross Brown
Ross.Brown@bopdhb.govt.nz

Size of the population served: 53,000

Breakdown of staff by profession and FTE

Psychiatrist: Professor Werry – 1 day every 3 weeks & temporary cover of 1 day every 3 weeks

Psychiatric Registrar: –

House Surgeon: –

Social worker: 1.0

Occupational Therapist: –

Nurse: 1.0

Maori Health Worker: 1.0

Employment officer: –

Recreation officer: –

Consumer Representative: 1.0 across entire MHS

Clinical Psychologist: 3.0 clinical, 2.0 trainee

Administration Support: 0.6

Other: 1.0 counsel or (teaching background), 1.0 liaison position

Number of clients in service: 32 referral (since May 2001)

(Early Intervention Service is sole position within CAMHS)

Age range of clients: 16-30 yrs (these are colleagues working in CAMHS)

Acceptance criteria: Assess everybody

Exclusion criteria: Those not psychotic

Caseload numbers

Case manager/MDT: 10-15

Psychiatrists: None attached to team – One's allocated prior to being picked up by EIP and then remain for course of treatment.

Psychologists [if not case managers]: 3.0 FTE in Youth Team to which clients referred to as appropriate.

Assessment process

On average, how soon after referral is assessment conducted?	
Waiting list?	No.
Interview – what staff are involved with the interview?	EI Worker initially. Others as appropriate.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	–
Are any biological tests available to be administered during the assessment? What are they?	I can arrange if required by presentation.
What cultural input is there into the assessment process?	
Maori:	Pan Kokiri on staff at all intake meetings. Involved PRN.
Pacific Island:	–
Other:	–
How regularly is the MDT assessment of client needs conducted?	Weekly review systems usually after third visit.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	–
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	Limited in service. Conference etc PRN.
Is research/evaluation of your service conducted?	No **Audit?** Pending
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Regional every 8 weeks. If lucky monthly support including EI Tauranga.
How do you maintain liaison with community agencies?	Service has liaison – co-ordinator role. Otherwise on an individual client basis.

Please describe any family input into the evaluation of your service: No formal input at this time.

Please describe any service user input into the evaluation of your service: No formal input at this time.

Please describe any family input into the planning of the services for clients: Substantial on individual basis - no group input.

Please describe client input into any planning of the service: As above.

Discharge criteria for your client: 18 months, non-attendance assessed individually.

Description of Service

How would you describe your model of care? Case Management – strength based. Psycho-education. 90% homebased. Friday club activities and participation.

What are the key elements of the EI service you deliver? Supportive input across a range of clientele. Psycho-education of whanau.

How do you integrate principles of EI into your practice? Start low – go slow. Due to geography and resourcing difficult to do anything quickly.

How could you improve your service? Resourcing – crisis, respite, housing, rehabilitation, addressing horrific childhood abuse - plus need for safety. Having hospital beds e.g. Starship.

Do you have the resources to see clients in their environment of choice? Yes. Unfortunately little than Case Management on offer in their environment.

Groups [briefly describe]

Psycho-education for the clients: Done on individual basis.

Psycho-education for the family: As above.

On-going family support group: Refer to SF.

Recreation group: Friday club just commenced 2002.

Other – specify: Camps.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work	W
Psychological therapy	W
Vocational support	O
Dietitian	O
Alcohol & drug Adult A & D member works closely including with youth, 1-2 days a week.	O
Anxiety	W
Stress management	W
Crisis intervention between 9-5 In consultation with MHS crisis team.	O
Crisis intervention outside 9-5 Done by MHS crisis team.	O
Housing & accommodation (structured)	O
Respite facilities	O
Hospitalisation	W
Describe cultural processes used for Maori clients Pon Kokiri (MMHW).	
Describe cultural processes used for Pacific Island clients	–

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	Taranaki Healthcare
Name of Service:	
Contact Address:	Private Bag 2016, New Plymouth
Phone:	06 753 7790
Fax:	06 753 7791
Contact Person/email:	Megan Jackson megan.jackson@thcl.co.nz
Size of the population served:	106,000

Breakdown of staff by profession and FTE

Psychiatrist:	I am the only person at Taranaki Healthcare who works solely with Early Intervention clients but am able to draw upon Adult and CACC Psychiatrists and mdt team of both services
Psychiatric Registrar:	
House Surgeon:	
Social worker:/Nurse	1.0 (Megan Jackson)
Occupational Therapist:	–
Nurse:	–
Maori Health Worker:	–
Employment officer:	–
Recreation officer:	–
Consumer Representative:	–
Clinical Psychologist:	–
Administration Support:	–
Other:	–
Number of clients in service:	10
Age range of clients:	18-29 yrs
Acceptance criteria:	Must have experienced a first episode psychosis/manic episode within the last year. Also provide ‘at risk’ assessments of psychosis.
Exclusion criteria:	Developmental delay

Caseload numbers

Case manager/MDT:	Megan Jackson	10-15
Psychiatrists:	I work with 5 Psychiatrists (4 from Adult and 1 from CACC)	
Psychologists [if not case managers]:	Nil	

Assessment process

On average, how soon after referral is assessment conducted?	Within one week – sometimes within one to three days.
Waiting list?	No.
Interview – what staff are involved with the interview?	Usually I am only staff member involved in initial interview. I am often present at meeting with Community and In-patient Psychiatrist and client.
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	Beck Youth Inventories.
Are any biological tests available to be administered during the assessment?	No.
What cultural input is there into the assessment process?	
Maori:	There are two Maori Services for Early Intervention clients in Taranaki. I can draw upon the expertise of the Maori Mental Health Team.
Pacific Island:	I can draw upon the services of our Pacific Island staff member employed to work with Pacific Island clients.
Other:	–
How regularly is the MDT assessment of client needs conducted?	Weekly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	–
Is support/supervision available for others members of the MDT?	–
What on-going education is available for staff?	Usually attend Early Intervention Conferences in New Zealand and sometimes attend Mental Health Conferences.
Is research/evaluation of your service conducted?	No **Audit?** No

How do you maintain liaison with other mental health services [community teams, inpatients etc?	I attend weekly meetings – our region is divided into geographic teams and I attend weekly meetings of the East and West Team (Adult Service). I also liase on a regular basis with our Child and Adolescent Psychiatrist. We both attend twice weekly allocation team meetings for CACC clients. I also attend In-patient Multidisciplinary meetings for the East Team and for the West Team, 2-5 times weekly.
How do you maintain liaison with community agencies?	I have provided education on First Episode psychosis to school counsellors, resource teachers of learning & behaviour and practice nurses. I liase (verbally and written) with GP's of my clients.
Please describe any family input into the evaluation of your service:	None, as of yet.
Please describe any service user input into the evaluation of your service:	I have an evaluation sheet for each session of my psycho-educational group (to help clients manage early psychosis) asking their input as to how the sessions can better meet their needs.
Please describe any family input into the planning of the services for clients:	Family are always invited to attend the initial and subsequent assessments of clients.
Please describe client input into any planning of the service:	–
Discharge criteria for your client:	I discharge clients either after having seen them for two years.

Description of Service

How would you describe your model of care? I provide a intensive case management approach. I aim for a rapid response to referrals received, and work with families and their family members prior to or after admission to the psychiatric unit.

What are the key elements of the EI service you deliver? Appointment for client provided as soon as possible. Monitor mental state of client and teach client and their family how to monitor this themselves – ongoing amendment of client relapse prevention plans.

How do you integrate principles of EI into your practice? I am main worker, so I am always able to offer an early appointment to client. I am well aware of how to gain rapid access to Adult Mental Health Service if safety issues arise for my clients. I provide regular inservices to professional groups who have referred or may refer to the service. I am able to refer people elsewhere if EI Service is not appropriate – have good knowledge of service.

How could you improve your service? I do not consider I am part of a EI service as such as there is not a dedicated Psychiatrist to see EI clients. I feel a Psychiatrist who sees all EI clients would be a huge improvement. Reducing the number of meetings I attend per week would mean I am freer for Interventions with clients.

Do you have the resources to see clients in their environment of choice? Yes – but find that they often do not access other services such as A & D counselling, because other services do not have a community based approach.

Groups [briefly describe]

Psycho-education for the clients: I provide 2 x 5 session groups for clients. Topics include what is psychosis early warning signs, Recognising stress and dealing with alcohol and drug use, self esteem and problem solving, medication, negative thought and moods, persisting symptoms, relaxation and planning your life.

Psycho-education for the family: –

On-going family support group: Have not initiated one myself. I link people with supporting families, currently involved in discussions to initiate a support group in TPW.

Recreation group: Currently discussing needs with my client.

Other – specify: –

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work I can access the East and West Team Psychologists or CACC Psychologists when this is required.
Psychological therapy As above.
Vocational support I utilise the support of Aftercare and Workbridge and assist my clients to access Training Opportunity Program Courses.
Dietitian Within Taranaki Healthcare.
Alcohol & drug I can access A & D Service for Adults or two A & D Counsellors within CACC Service.
Anxiety I can access the East and West Team Psychologists and CACC Psychologists when this is required.
Stress management I can access stress management groups facilitated by Occupational Therapists at Adult Mental Health.
Crisis intervention between 9-5 They can assess the Crisis Team at Taranaki Healthcare.
Crisis intervention outside 9-5 They can assess the Crisis Team at Taranaki Healthcare
Housing & accommodation (structured) They often cannot access such accommodation because the criteria for supported psychiatric accommodation within c is to have had.
Respite facilities Access to Child and Adolescent Crisis Respite Care. Access to Respite Care at Crisis Respite – through Adult Mental Health.
Hospitalisation Clients tend to be prioritised for the Quiet Wing in Te Puna Waiora
Describe cultural processes used for Maori clients I offer to meet them at their home. I am aware of services available for Maori clients.
Describe cultural processes used for Pacific Island clients –

Other specialist interventions offered: Access to Psychological support – for clients with eating disorders need family therapy etc.

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Mid Central Health

Name of Service: Child, Adolescent & Family Mental Health

Contact Address: Kauri House, Palmerston North Hospital,
Ruauine Street, Palmerston North

Phone: 06 350 8373

Fax: 06 350 8374

Contact Person/email: Ravi

Size of the population served: 150,000 - 200,000

Breakdown of staff by profession & FTE

Psychiatrist: 1.0, 0.2 Paediatrician, 0.4 Psychiatrist

Psychiatric Registrar: –

House Surgeon: –

Social worker: }

Occupational Therapist: }

Nurse: 1.4 } Equivalent to 17 FTEs

Maori Health Worker: } (Clinical)

Employment officer: } Social Workers

Recreation officer: } Reg. Nurses

Consumer Representative: } Clinical Psychologists

Clinical Psychologist: } Psych. Interns

Administration Support:

Other:

Number of clients in service: 600

Age range of clients: 0-19 yrs

Acceptance criteria: Children/Adolescent with severe mental health issues

Exclusion criteria: Sole care and protection. Any situation/issued without mental health issues (serious)

Caseload numbers

Case manager/MDT: Average 16

Psychiatrists: W/A (minimal if required)

Psychologists [if not case managers]: W/A (All Case Managers)

Assessment process

On average, how soon after referral is assessment conducted? Depends on urgency.

Waiting list?	Yes.
Interview – what staff are involved with the interview?	All disciplines, including Duty Worker(shared roster by All).
Are the family invited to attend?	Yes.
Are any psychometric measures used? What are they?	General screenings used by Psychologists (e.g. depression screens) no specific screens for psychosis.
Are any biological tests available to be administered during the assessment? What are they?	Yes. All appropriate tests, including Cat Scans and MRI.
What cultural input is there into the assessment process?	
Maori:	Mid Central has a specialist Maori Mental Health Service for Maori clients.
Pacific Island:	Assessed through switchboard.
Other:	As above.
How regularly is the MDT assessment of client needs conducted?	Twice weekly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	
Is support/supervision available for others members of the MDT?	
What on-going education is available for staff?	Heaps – internally and externally.
Is research/evaluation of your service conducted?	Yes **Audit?**
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Liaison meetings, discipline related meetings, integrated treatment planning, education/seminars.

How do you maintain liaison with community agencies?	Visits, letters, telephone calls, common education/seminars.
Please describe any family input into the evaluation of your service:	Customer satisfaction surveys, verbal feedback to clinicians and team leader.
Please describe any service user input into the evaluation of your service:	Consumer Rep. for Mental Health Service employed the Mental Health Service.
Please describe any family input into the planning of the services for clients:	Regular meetings with key stake holders.
Please describe client input into any planning of the service:	No discreet family involvement, but done through meetings and key stake holders.
Discharge criteria for your client:	Clinical indicators and outcome.

Description of Service

How would you describe your model of care? Multidisciplinary and specialist mental health service for children, adolescents and their families. Provides assessment and treatment for children and adolescents with a severe mental health issue. The client group is 0-19 years. Intensive F/u treatment is done.

What are the key elements of the EI service you deliver?
- Assertive monitoring of mental state/safety
- Psycho-education to clients family
- Education in recognising early warning signs
- Education in relapse prevention

How do you integrate principles of EI into your practice? These principles are part of normal good practice in our service. The service is consumer needs driven.

How could you improve your service? In terms of EI Service delivery, it would be useful to have specific dedicated staff within the team to provide this service. May be also in a co-working capacity.

Do you have the resources to see clients in their environment of choice? Yes, quite often done in the community.

Groups [briefly describe]

Psycho-education for the clients:	Unfortunately we do not have groups for these, but it is done on an individual basis (with each family).
Psycho-education for the family:	
On-going family support group:	
Recreation group:	One dedicated staff member, who does part-time adventure therapy, in conjunction with key workers.

Availability of Specialist intervention

W = Within Team O = Other Service Provider

Family work

Done within the team, by all disciplinarians.

Psychological therapy

Done by all members of the team, but may vary in techniques/skills i.e. CBT/Child Psychotherapy.

Vocational support

Not done very much in the service as majority of clients are in school. Liaison and collaboration with schools, group services, education and RTXB.

Dietitian

Referred to dietitians within hospital.

Alcohol & drug

There are two dedicated A & D Youth Workers and CAF Service.

Anxiety

Done in conjunction with various skills within the multidisciplinary team.

Stress management

Within team, by all members.

Crisis intervention between 9- 5

Done by duty worker within team, backed up by team.

Crisis intervention outside 9-5

Done by Mental Health Emergency Team. CAF Team does on-call backup on Friday night and weekends.

Housing & accommodation (structured)

Done within team, at times in conjunction with Bernardos.

Respite facilities

Done in conjunction with crisis team or outside agencies such as Bernados or Social Services.

Hospitalisation

Done in adult inpatient service at present, in conjunction with Child/Adolescent Psychiatrist.

Describe cultural processes used for Maori clients

There is a dedicated Maori Mental Health Service, with a CAF component.

Describe cultural processes used for Pacific Island clients

Done in conjunction with family and advisors in the community.

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Capital and Coast

Name of Service: Wellington Early Intervention Service

Contact Address: 61-63 Lordon Quay, PO Box 1729, Wellington

Phone: 04 494 9161

Fax: 04 494 9163

Contact Person/email: Lois Boyd
Lois.Boyd@ccdhb.org.nz

Size of the population served: 400,000

Breakdown of staff by profession and FTE

Psychiatrist: 1.2

Psychiatric Registrar: 1.0

House Surgeon: –

Social worker: 2.0

Occupational Therapist: 1.0

Nurse: 4.0

Maori Health Worker: 1.0

Employment officer: 1.0

Recreation officer: –

Consumer Representative: –

Clinical Psychologist: 2.0

Administration Support: 2.0

Other: 1.0, Research and Training Co-ordinator

Number of clients in service: Currently 162

Age range of clients: 13-25 yrs

Acceptance criteria: 13-25 yr olds, living in greater Wellington area who have experienced pychosis and have not previously been treated for this for more than one year.

Exclusion criteria: –

Caseload numbers

Case manager/MDT: 15-20

Psychiatrists: 80 per 1.0 FTE – not all high activity

Psychologists [if not case managers]: 20-25

Assessment process

On average, how soon after referral is assessment conducted?	Depending on circumstances of client anywhere from same day to a month later.
Waiting list?	No.
Interview – what staff are involved with the interview?	Two staff.
Are the family invited to attend?	Yes if appropriate.
Are any psychometric measures used?	No. Other than HoNOS for CAOS project.
Are any biological tests available to be administered during the assessment?	FBC, U & E, thyroid, liver, protection, CT and EEG, Occasional MRI.
What cultural input is there into the assessment process?	
Maori:	All referrals identified as Maori are assessed by our Kai Manaaki and sent to Maori Mental Health Service.
Pacific Island:	Our team has access to Health Pacifika our DHB's Pacific Island MH Service.
Other [?Interpreter etc.]:	As required.
How regularly is the MDT assessment of client needs conducted?	Regular client review three monthly.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Yes.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	Monthly Journal Club plus a wide variety of internal and external training course.
Is research/evaluation of your service conducted?	Yes **Audit?**
How do you maintain liaison with other mental health services?	Through regular contacts regarding clients training sessions and meetings.

How do you maintain liaison with community agencies?	Ongoing contact regarding clients, regularly scheduled training forums.
Please describe any family input into the evaluation of your service:	Nil formal as yet. Team receives a lot of feedback via family psycho-education groups.
Please describe any service user input into the evaluation of your service:	Nil as yet – DHB currently working on a months evaluation for consumers.
Please describe any family input into the planning of the services for clients:	We have a close relationship with them as required.
Please describe client input into any planning of the service:	Clients involved in planning regarding groups, no current formalised service team work with CCDHB Consumer Advisor evaluation.
Discharge criteria for your client:	After 2-3 years in service, moving out of area.

Description of Service

How would you describe your model of care? Intensive Case Management approach combined with a variety of specialist staff available for keywork and groups, family and cultural supports.

What are the key elements of the EI service you deliver? Early Detection and Intervention, Family Support Education, Psycho-education, Recovery Focus, Development Focus, Prevention of Secondary trauma, engagement, skilled MDT approach.

How do you integrate principles of EI into your practice? We have a document the team has worked on together that describes the principles we work to and practices linked to these.

How could you improve your service? Get another Kai Manaaki i.e. 2 FTE's working on set up of a research database, employ a Pacific Island Mental Health Worker.

Do you have the resources to see clients in their environment of choice? Yes

Groups [briefly describe]

Psycho-education for the clients:	Evening group focusing on recovery, talking through experiences etc.
Psycho-education for the family:	A group run either over six evenings or one weekend for family members.
On-going family support group:	No.
Recreation group:	Two groups per week that run for the whole day and combine psycho-ed, lunch and recreation.

Other – specify:	Te Tunakiri group - weekly for nine weeks. The group combines exploring issues of identity with recreation/cultural activities.

Availability of Specialist intervention [briefly describe]

W = Within Team O = Other Service Provider

Family work Staff trained in family meetings – COMMEND model.	W	
Psychological therapy Three psychologists providing a wide variety of psychological interventions.	W	
Vocational support Employment consultant as part of team.	W	
Dietitian	O	
Alcohol & drug	O	
Anxiety	W	
Stress management	W	By Case Managers
Crisis intervention between 9-5	W	Case Managers
Crisis intervention outside 9-5	O	Crisis Team
Housing & accommodation(structured) One youth supported house available in Hutt Valley, Richmond Fellowship.	O	
Respite facilities	O	Hospital and NGO based
Hospitalisation	O	Wellington and Hutt Valley DHB's
Describe cultural processes used for Maori clients	W	
Describe cultural processes used for pacific island clients	O	

Other specialist interventions offered: –

Early Intervention for Psychosis Services in NZ: Description of Services

DHB:	West Coast
Name of Service:	Buller Community Mental Health
Contact Address:	PO Box 248, Westport
Phone:	03 789 5532
Fax:	03 788 8223
Contact Person/email:	enccsam@westcoastdhb.org.nz
Size of the population served:	10,000

Breakdown of staff by profession and FTE

Psychiatrist:	0.4
Psychiatric Registrar:	-
House Surgeon:	-
Social worker:	-
Occupational Therapist:	0.2
Nurse:	3.2
Maori Health Worker:	1.0
Employment officer:	–
Recreation officer:	–
Consumer Representative:	1.5 (coast wide across 3 locations)
Clinical Psychologist:	0.2
Administration Support:	1.0
Other:	2.0 A & D Counsellors, 1.4 Child adolescent therapists
Number of clients in service:	211
Age range of clients:	3-88 yrs
Acceptance criteria:	Suspected or confirmed psychiatric diagnosis
Exclusion criteria:	–

Caseload numbers

Case manager/MDT:	Approximately 30 per c/m
Psychiatrists:	
Psychologists [if not case managers]:	

Assessment process

On average, how soon after referral is assessment conducted?	Within criteria for urgent which can be 24 hrs or 7 days away.

Waiting list?	No.
Interview – what staff are involved with the interview?	Depends on nature of identified problem plus age of client.
Are the family invited to attend?	Yes.
Are any psychometric measures used?	BPRS.
Are any biological tests available to be administered during the assessment? What are they?	Psychiatrist to order.
What cultural input is there into the assessment process?	
Maori:	Yes.
Pacific Island:	No.
Other [?Interpreter etc.]:	If needed.
How regularly is the MDT assessment of client needs conducted?	Routinely every 3 months. Sooner in deterioration.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Yes.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	Individual needs identified in staff appraisals.
Is research/evaluation of your service conducted?	No **Audit?** Regular audits.
How do you maintain liaison with other mental health services [community teams, inpatients etc]?	Regular meetings – use of telemedicine.
How do you maintain liaison with community agencies?	Small community allows for ease of access, often face to face. Regular written updates sent to GP's and other relevant agencies.
Please describe any family input into the evaluation of your service:	Use of new employed family advisor.

Please describe any service user input into the evaluation of your service:	Via consumer and family advisor networks – so consumers involved in planning and review.
Please describe any family input into the planning of the services for clients:	–
Please describe client input into any planning of the service:	–
Discharge criteria for your client:	–

Description of Service

How would you describe your model of care? Emphasis on recovery model – client focused. (Psychiatrists often medical model only).

What are the key elements of the EI service you deliver? No specific Early Intervention service here. Intensive intervention. Client and family education and support use of wide MDT input.

How do you integrate principles of EI into your practice? Rapid assessments, access to MEDS, education to all involved. Intensive follow-up and support. Use of recovery model of care as appropriate.

How could you improve your service? Closer liasing with other agencies, educate primary sector. Regular contact with Early Intervention service. Some sat on MH promotion strategies.

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients:	No groups. We don't have the client numbers at any one time to sustain a group.

Availability of Specialist intervention [briefly describe]

W = Within Team O = Other Service Provider

Family work Use of child adolescent worker. No specialist family therapists, however.
Psychological therapy 0.2 Psychologist. Use of CMH Nurses skills and psychiatrist.
Vocational support Very very hard to access in Westport.
Dietician Visiting from Greymouth.
Alcohol & drug 2 A & D Counsellors in team.
Anxiety CMH Nurses, Psychiatrist. Consult anxiety disorders unit at PMH.
Stress management CMH staff.
Crisis intervention between 9-5 Case Manager if possible, If not, PES Greymouth.
Crisis intervention outside 9-5 PES Greymouth.
Housing & accommodation (structured) Private sector or Housing New Zealand.
Respite facilities Nil.
Hospitalisation Hard for below age 18. Access to Christchurch youth beds virtually impossible.
Describe cultural processes used for Maori clients Powhiri process, whangitanga, use of corner stones.
Describe cultural processes usedfor pacific island clients –

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Canterbury

Name of Service: Totara House Early Intervention In Psychosis Service

Contact Address: 194 Bealey Avenue, Christchurch

Phone: 03 377 9733

Fax: 03 377 9713

Contact Person/email: Kay Fletcher
kay.fletcher@cdhb.govt.nz

Size of the population served: 380,000

Breakdown of staff by profession and FTE

Psychiatrist: 0.7

Psychiatric Registrar: 0.4

House Surgeon: –

Social worker: 1.0

Occupational Therapist: 0.8

Nurse: 5.6

Maori Health Worker: 0.5

Employment officer: –

Recreation officer: –

Consumer Representative: –

Clinical Psychologist: 1.5

Administration Support: 1.6 (1.2 Secretarial, 0.4 Manager)

Other: Family Worker – 0.5
Researcher – 0.5

Number of clients in service: 97

Age range of clients: 18-30 yrs, (16-18 by negotiation with Youth Services)

Acceptance criteria: Psychosis nos suspected mental disorder

First episode of treatment for psychosis

Exclusion criteria: Nil if leading presenting feature 1st episode psychosis 1Q < 60 would be treated by Psychiatric Services for Adults with intellectual disability

Caseload numbers

Case manager/MDT: 1:15

Psychiatrists: 1:138 (does not include registrars) then would be 1.88

Psychologists [if not case managers]: 1:12 3x group work weekly plus research assessments

Assessment process

On average, how soon after referral is assessment conducted?	Within one week, often next working day.
Waiting list?	No.
Interview – what staff are involved with the interview?	O/P referral – Dr and potential new caseworker (Nurse/OT/SW) inpatient – potential new caseworker joins inpatient assessment.
Are the family invited to attend?	Yes or other support person.
Are any psychometric measures used?	Yes.
Are any biological tests available to be administered during the assessment?	If required.
What cultural input is there into the assessment process?	
Maori:	Pukenga Atawhai involved if client identifies as Maori.
Pacific Island	–
Other:	Barriers to communication checked prior to interview and appropriate interpreter involved as required.
How regularly is the MDT assessment of client needs conducted?	Presentation of Case to MDT at a maximum 6 monthly but does not necessarily include MDT assessments.

Supervision [including teleconferencing]

Is support/supervision available for cultural workers?	Yes.
Is support/supervision available for others members of the MDT?	Yes.
What on-going education is available for staff?	Inservice fortnightly, Otago Med School papers encouraged, courses/conferences supported as budget allows, other University study supported, International Conferences attended by Medical staff and other MDT
Is research/evaluation of your service conducted?	Yes **Audit?** Yes

How do you maintain liaison with other mental health services?	Regular weekly clinical meetings Inpt services. Six monthly liaison/problem solving meetings with Inpt. Team (process issues). Liaison role taken by one senior staff member to ensure contacts with other Community teams.
How do you maintain liaison with community agencies?	NGO and other youth forums attended by staff. A & D network links maintained by staff with that focus (x 2) Provide training to school counsellors and other Youth Workers. Attempts to provide information/contact with GP's in education groups not successful but 1:1 via positive casework relationships works well.
Please describe any family input into the evaluation of your service:	Family Survey distributed on discharge of client from Service. Informal evaluation offered through family support meetings.
Describe any service user input into the evaluation of your service:	Previous user survey not responded to. Nil at present.
Describe any family input into the planning of the services for clients:	Info from Evaluations to be used. Consultation and new family advisor to Mental Health Service on service changes.
Describe client input into any planning of the service:	Consumer advisors occasionally consulted but no youth focused advisor available. Nil currently from current clients but clients involved in projects (design of colour scheme for building interior).
Discharge criteria for your client:	Approximately 2 years in service or prior to that following review by MDT due to accelerated progress, non attendance.

Description of Service

How would you describe your model of care? Specialist intensive MDT based on EPPIC.

What are the key elements of the EI service you deliver? Community-liaison, comprehensive assessment, range of treatments offered in-service by skilled clinicians etc.

How do you integrate principles of EI into your practice? The service is based around best practice principles contained in Mental Health Commision Guidance Note (1999a) and principle author is team psychiatrist.

How could you improve your service? Consumer involvement in planning. Maori Health Work time, greater flexibility of place of service, delivery (i.e. Drs assessments in family home on 1st contact) more flexibility with hours of service provision.

Do you have the resources to see clients in their environment of choice? Mostly, not medical.

Group [briefly describe]

Psycho-education for the clients:	10-12 session (6 week) group covering set format (workbook) but adapted to needs of particular attendees.
Psycho-education for the family:	Group for new families to service – 4 sessions, new group each month.
On-going family support group:	On occasions a monthly group for families requiring ongoing support.
Recreation group:	Struggles to maintain numbers. Very useful when clients newly discharged from Inpt and need social contact, confidence.
Other – specify:	Art Group – Run by Artist – assists socialisation through media, fun/expressive opportunity. Numbers vary currently.

Availability of Specialist intervention [briefly describe]

W = Within Team O = Other Service Provider

Family work	W	Specialist 0.5 Family Worker provides problem solving oriented input to families needing more than caseworker intervention.
Psychological therapy	W	Individual and Group Service provision.
Vocational support	O	NGO providers in area but more geared for LTMI.
Dietitian	W	
Alcohol & drug	W	Two caseworkers with special interest and training in this area. Provide individual/group work where required.
Anxiety	W	
Stress management	W	Part of focus group and individual therapy and casework.
Crisis intervention between 9-5 [DAO]	W	
Crisis intervention outside 9-5 [PES]	O	Canterbury District Health Board Psychiatric Emergency Service.
Housing & accommodation (structured)	O	Limited Youth beds. Youth adults not well catered for as adult beds have no LTM1 but most NGO providers try and cluster younger people.
Respite facilities	O	Canterbury District Health Board and NGO providers. 72 hr emergency plus w/e respite through NGO and longer respite available through DHB.
Hospitalisation	W/O	Team has allocated beds in Inpt unit and Inpt/OP staff work closely together (integrated model) shared consultant.
Describe cultural processes used for Maori clients		Cultural assessment part of initial assessment; co-working between MHW and case manager.
Describe cultural processes used for pacific island clients		Minimal involvement with Pacific Island Mental Health Workers as able.

Other specialist interventions offered: Leisure and Recreation – multiple NGO providers.

Early Intervention for Psychosis Services in NZ: Description of Service

DHB:	South Canterbury
Name of Service:	Child & Youth Mental Health
Contact Address:	Private Bag 911, Timaru
Phone:	03 684 1520
Fax:	03 684 1520
Contact Person/email:	childyouth@timhosp.co.nz
Size of the population served:	53,000

Breakdown of staff by profession and FTE

Psychiatrist:	Child (Daniel)
Psychiatric Registrar:	–
House Surgeon:	–
Social worker:	–
Occupational Therapist:	–
Nurse:	2.0
Maori Health Worker:	–
Employment officer:	–
Recreation officer:	–
Consumer Representative:	Yes
Clinical Psychologist:	–
Administration Support:	1.0
Other:	
Number of clients in service:	2
Age range of clients:	18 yrs
Acceptance criteria:	Nil specialist service
Exclusion criteria:	N/A

Caseload numbers

Case manager/MDT:	20-25
Psychiatrists:	2 days a week for whole mental health service
Psychologists [if not case managers]:	Currently Nil

2 clients fit first episode psychosis criteria

Availability of Specialist intervention [briefly describe]

W = Within Team O = Other Service Provider

Family work	–	
Psychological therapy	–	
Vocational support	–	
Dietitian	–	
Alcohol & drug		Youth and A & D
Anxiety	–	
Stress management	–	
Crisis intervention between 9-5	–	
Crisis intervention outside 9-5		Tac Team
Housing & accommodation (structured)		Unable to access
Respite facilities	Nil	
Hospitalisation	–	
Describe cultural processes used for Maori clients	–	
Describe cultural processes used for Pacific island clients	–	

Early Intervention for Psychosis Services in NZ: Description of Service

DHB: Otago

Name of Service: Aspiring House Early Intervention Service

Contact Address: 9 Union Street, Dunedin

Phone: 03 474 1641

Fax: 93 474 9065

Contact Person/email: Irene Johns
IreneJ@Lewthotago.co.nz

Size of the population served: 150,000

Breakdown of staff by profession and FTE

Psychiatrist: 0.5 (Dr David Bathgate)

Psychiatric Registrar: –

House Surgeon: –

Social worker: 1.0 (Julia Neil)

Occupational Therapist: 1.0 (Jane Anderson)

Nurse: 1.0 (Prue Muschamp), 0.8 FTE (Grant Ritchie)

Maori Health Worker: –

Employment officer: –

Recreation officer: –

Consumer Representative: Steve Gregory

Clinical Psychologist: 1.0 (Dr Jackie Lodge), 0.5 (Kelly Holmes)
(This position has been increased to 0.7 FTE and advertised, as Kelly is leaving in May)

Administration Support: 1.0 (Irene Johns)

Other:

Number of clients in service: 65

Age range of clients: 18-30 yrs

Acceptance criteria: First presentation psychosis within 18-30 yr age range

Exclusion criteria: Formal diagnosis of psychosis made outside of 2 yrs.

Caseload numbers No set numbers

Case manager/MDT: It varies

Psychiatrists: sees all clients at variable intervals

Psychologists [if not case managers]: varies (currently 10 for 0.5 FTE, 18-22 for 1.0 FTE). Psycologists currently do C/M but this is being reviewed).

Assessment process

On average, how soon after referral is assessment conducted?	Within 48 working hours.
Waiting list?	No.
Interview – what staff are involved with the interview?	PDN initially, then psychiatrist.
Are the family invited to attend?	If client agreeable to this.
Are any psychometric measures used? What are they?	HoNOS as part of CaOS trial.
Are any biological tests available to be administered during the assessment?	Bloods, EEG, CT ordered.
What cultural input is there into the assessment process?	
Maori:	Have access to Te Oranga Tonu Tanga
Pacific Island:	Informal – HCD staff member – monthly Huakau.
Other [?Interpreter etc.]:	
How regularly is the MDT assessment of client needs conducted?	2 x 1 week clinical review meeting, 3/12 reviews.

Supervision

Is support/supervision available for cultural workers?	N/A.		
Is support/supervision available for others members of the MDT?	Yes.		
What on-going education is available for staff?	Staff apply as appropriate.		
Is research/evaluation of your service conducted?	No	**Audit?**	Not as yet but looking into this. Funding is an issue.
How do you maintain liaison with other mental health services?	Roster; informal liaison.		
How do you maintain liaison with community agencies?	Interface meetings; Informal liaisons as needed.		

Please describe any family input into the evaluation of your service: Attempted thru surveys; poor response rates (have family rep and family groups).

Please describe any service user input into the evaluation of your service: Surveys, but ODHB currently revamping these.

Please describe any family input into the planning of the services for clients: Family rep/advisor.

Please describe client input into any planning of the service: Consumer rep/advisor.

Discharge criteria for your client: 2 years.

Description of Service

How would you describe your model of care? Integrated MH.

What are the key elements of the EI service you deliver? Specialised assessment asap; PDN and psychiatrist. Intensive early treatment include, O.T. plus psychological input as required. Lowest dose atypicals. Community based treatment as much as possible.

How do you integrate principles of EI into your practice? Would like to do more promotion/education but resource issues. Offer intensive early treatments with MDT. Would like to be evaluating service, but funding/resource issue.

How could you improve your service? Resources to promote early detection and evaluation of service; separation of unit manager from clinical team; lowering age range to 16; more flexibility around duration of treatment, recognition of service as specialist (currently considered community team).

Do you have the resources to see clients in their environment of choice? Yes.

Groups [briefly describe]

Psycho-education for the clients: –

Psycho-education for the family: Offer group as need arises.

On-going family support group: Offered until this year; less need currently.

Recreation group: –

Other – specify: –

Availability of Specialist intervention [briefly describe]

W = Within Team   O = Other Service Provider

Family work	W	Family work offered but not family therapy.
Psychological therapy	W	As needed a psychologist in team.
Vocational support	W	Wider community resources do not support specific assessment and placement.
Dietitian	O	
Alcohol & drug	W/O	MDT upskilling regular liaison with CADS.
Anxiety	W	Psychological input for persistent anxiety 1:1.
Stress management	W	General psychoed through MDT; psychological input as needed.
Crisis intervention between 9-5	W	
Crisis intervention outside 9-5	O	
Housing & accommodation (structured)	W/O	Social worker on team; refer for needs assessment as required.
Respite facilities		As above.
Hospitalisation	O	Early Intervention staff remain involved.
Describe cultural processes used for Maori clients		Referral to TOTT for cultural assessment.
Describe cultural processes used for pacific island clients		Liaison as required.

Appendix II

Hearing Their Voices: A Multidimensional Evaluation of an Early Intervention for Psychosis Team

Malcolm W. Stewart
The Taylor Centre, Auckland District Health Board.
Applied Behavioural Science, University of Auckland

Robyn Gedye
Counties-Manukau District Health Board

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The Taylor Centre, Auckland District Health Board
Psychiatry, University of Auckland

Introduction

This paper reports an outcome evaluation of an Early Intervention for Psychosis Team (EI team) at the Taylor Centre, a community mental health centre serving people aged 18-65 from the central Auckland area. During the time covered by this evaluation, the practice of the EI team at the Taylor Centre was informed by, and based on, the Integrated Mental Health Care (IMHC) program (Falloon, & Fadden, 1993). The dominant features of this approach are: An assertive treatment approach, rapid use of optimal medication strategies, active use of biological and psychosocial intervention strategies, and a strong emphasis on family/significant-other involvement and upskilling as active change agents and participants in the recovery process.

For adequate evaluation of any service that focuses on working with the individual in their social context, it is important to evaluate outcome from the perspective of the client, the perspective of significant others, and from the clinical perspective. These three different voices were incorporated in this study. Current data was provided by current clients of the service, their significant others, and by staff of the EI team. Clients and their significant others were also asked to provide retrospective evaluative data about their experience of contact with the service. Extensive use of record review was made to evaluate change over time for the clients and to study services provision.

The primary questions addressed by this evaluation were:

1. A description of the services actually provided by the EI team to clients of the service.
2. What are the outcomes (in terms of mental health, functional ability, coping ability, happiness/wellbeing, and quality of life) for people utilising the services of the EI team, from the perspectives of the client, their significant others, and, for some of these dimensions, clinical evaluations.
3. What client characteristics and aspects of service provision related to better or worse outcomes.
4. How satisfied were clients and significant others with the service provided by the EI team.

Method

Participants

Participants in this study were current clients of the EI team and the significant others of these clients. Clients were included in the study if they had been in the service for more than four months. Twenty-five of 30 (83%) met this criteria. The average age of the clients was 25 years (median = 23, range = 17-49). Seventeen (68%) of the clients were male, 18 (72%) were Caucasian, three (12%) were New Zealand Maori, and three (12%) were of Pacific Island ethnicity. Eighteen (72%) were single, five (20%) were married or living in a de-facto relationship, and two (8%) were divorced. Nineteen (76%) were primarily living with parents during contact, five (20%) were living with spouses or non-family members and one (4%) was living alone. The primary diagnosis was schizophrenia for nineteen clients (76%), bipolar disorder for four clients (16%), and drug-induced psychosis for 2 clients (8%). Seventeen (68%) were reported as having a chronic onset (clear evidence of prodromal signs more than one year prior to first referral to mental health services) and eight (32%) showed an acute onset. Ten clients (40%) were referred by family members and one (4%) self-referred direct to the community mental health services, four (16%) were referred from an inpatient mental health facility, and ten (40%) were referred by another health professional or service.

One significant other was nominated by each client as the family member/friend who had been most closely involved in the client's care during the client's contact with the EIS. Twenty-one (84%) of the significant others were parents, two (8%) were partners, and two (8%) were siblings.

Measures

Clinical record review

A clinical record review protocol was developed for this study. This review protocol structured recording of data regarding: demographic information, the client's premorbid and onset status and progress during intervention, and service parameters such as the classes of medication used, contact with different disciplines, and types of interventions used. Each recorded clinical contact was coded as to who (client, family, psychiatrist, keyworker, and/or other clinician) was involved, and the numbers of contacts involving each combination of participants were summed for the first year of service and (for clients who had been in the service for two or more years) during the most recent year.

A variety of outcome measures were also recorded. The number and duration of outcome indicators such of hospital admissions, recorded use of crisis oversight, and self-harm attempts were recorded. As no consistent outcome scales were available for all the records, information in the file was used to retrospectively estimate the clients score on the Health of Nations Outcome Study (HoNOS: Wing, Beevor, Curtis, Park, Hadden, & Burns, 1998) at three times: 1) one year prior to admission to service, 2) at the time of admission, and 3) at the current time. A HoNOS for the current time was also completed by each client's current keyworker. To similarly assess progress over time, three GAF scores based on the DSM4 GAF descriptors reflecting 1) symptoms, 2) social function, and 3) day-to-day function were calculated for each of the three times described above. Validity checks of these measures were carried out in a number of ways. A comparison of the current HoNOS score derived from the file and a HoNOS completed by the client's keyworker showed a high level of agreement (Intraclass Correlation Coefficient (ICC) = 0.92, $p<0.0001$). The HoNOS and GAF scores derived from the files for l year prior to onset were compared for people with acute (prodromal signs for less than one year) and chronic onset. Multivariate analysis of Variance (MANOVA) indicated that the measures did discriminate between the acute and chronic onset clients in the expected direction

(F(4,19)=3.9, p<0.02). Univariate analysis showed that the HoNOS (F(1,23) = 5.1, p<0.04), GAF-symptom (F(1,23) = 16.8, p<0.001), GAF-social (F(1,23) = 6.7, p<0.02), and the GAF-function (F(1,23) = 6.6, p<0.001) all showed significant differences in the expected direction.

Client self-report

Client satisfaction with service was assessed with a modified version of the PEOPLE evaluation system (Raeburn, 1987) as previously modified for mental health services (Stewart, Shea and Woodward, 1999). This system evaluates satisfaction by 1) assessing satisfaction with service characteristics (e.g. perceived timeliness and competence of input, 2) assessing the clients' perception of improvement since entry to the service, and 3) assessing the client's perception of the contribution of the service to that change. Qualitative data relating to the most helpful and least helpful aspects of the service, and suggestions for improvement were sought also. Clients were also asked to complete a self-report version of the HoNOS and were asked to rate their perception of their quality of life on a five-point scale. The measurement properties of the self-report HoNOS were tested and indicated to be satisfactory by a high level of agreement with the significant-other HoNOS (Intraclass Correlation Coefficient: ICC = 0.81, p<0.004) and with a standard HoNOS completed by the client's keyworker (ICC = 0.83, p<0.002).

Significant other report

The satisfaction of significant others with the service received by the clients was assessed using significant-other versions of the PEOPLE evaluation system (Raeburn, 1987) and the HoNOS (Wing, et al, 1998). The significant-other versions of these measures have parallel content to the client-report versions. The measurement properties of the significant-other HoNOS were tested and indicated to be satisfactory by a high level of agreement with the client-report HoNOS (Intraclass Correlation Coefficient: ICC = 0.81, p<0.004) and with a standard HoNOS completed by the client's keyworker (ICC = 0.84, p<0.002). The significant others were also asked to rate the quality of life for their significant other on a five point scale, and were also asked to rate the carer burden they were currently experiencing, also using a five point scale (none – extreme). The validity of the HoNOS measures derived from the record were assessed by comparing the current file-derived HoNOSs with one concurrently completed by the client's keyworker. A high level of agreement between these assessments was indicated by an Intraclass Correlation Coefficient (ICC) of 0.92 (F(24,24)=12.5, p<0.0001). This offers support for the validity of the HoNOS measures derived from the files.

Procedure

Study

Determination that the study could proceed as a publishable clinical audit was received from the chairperson of the local Ethics Committee. Clinical record review was then undertaken and the self-report questionnaire was sent out to all 25 eligible clients. After a few days the clients were contacted by telephone to ensure that they had received the questionnaire and to request permission to send the significant other questionnaire to their significant others. A questionnaire was then sent to the significant other that was nominated by each client as most closely involved in their care. Clients and significant others who had not responded in ten days were telephoned to remind them and again request their participation. Clients and significant others returned the questionnaires by mail. Clinical record reviews were available for 100% of clients. At least one of the client or significant other data sets were obtained for 20 (80%) cases. Fifteen clients (60%) and 18 significant others (72%) returned questionnaires. Data from both the client and their significant other was obtained in 13 cases (52%).

Questionnaires and the clinical record review sheets were handled by a non-clinical administrator who marked them with a unique code to ensure the anonymity of respondents but to allow cross-matching of the data. Quantitative data was analysed using appropriate parametric and non-parametric techniques. Qualitative data was analysed using the inductive categorisation technique.

Early Intervention Team

The Early Intervention Service studied worked as part of a publicly funded community mental health centre serving an inner city area with a population of approximately 55,000 people aged 18-65. Almost all members of the EIS divided their time between more generalist mental health service commitments (for example, as part of a general community mental health team or a crisis service) and their work with the EIS. The team membership and approximate time allocation for the EIS typical during the study period was: Two integrated mental health care (IMHC) workers (80% full-time equivalent (FTE) in total), two nurses (40% FTE total), two occupational therapists (30% FTE total), two psychiatrists (40% FTE total), one psychologist (40% FTE) and one social worker (10% FTE). Thus a total of 2.4 FTEs were being contributed to the management of the 30 EIS clients.

The EIS offered an intensive case management approach. All staff had received training in IMHC approaches.

Results

Service provision characteristics

As part of the record review, the types of service provided to each client were assessed. The types of services received are detailed in Table 1:

Table 1. Percentage of clients having contact with each type of service supplied during their contact with the Taylor Centre.

Interventions Used		Contact with Discipline		Medications Used	
Intervention	**%**	**Discipline**	**%**	**Medication type**	**%**
Medication	100	Psychiatrist	100	Atyp. antipsychotics	72
Early Warning Signs	84	Nurse	88	Conv. antipsychotics	64
Family Involvement	80	IMHC worker	84	Mood stabilizers	24
Formal family mtg	64	O.T.	64	Antidepressants	36
IMHC modules	64	Psychologist	60	Anticolinergics	36
Psychologist	60	Soc Worker	24	Anxiolytics	28
O.T.	40	C.S.W.	20	Anticonvulsants	20
Social Worker	8	Dual Diagnosis	16		

Table 1 details the proportion of clients who were recorded as having received various types of interventions during their contact with the service. The clients received a mean of 5 (s.d. = 1.8) types of intervention listed. Medication, training in the recognition and response to early warning signs, and intensive family involvement in care were the most widely practiced types of interventions. Table 1 also details the types of health professionals that clients had contact with. Individual clients had contact with a mean of 4.5 (s.d. = 1.5) disciplines during the course of their contact. All clients saw a psychiatrist. All clients also had a keyworker, who was likely to be a nurse, an IMHC worker, and OT, or a social worker.

Table 1 shows the proportion of clients who were recorded as having been prescribed various types of medication at some time during their contact with the service. Most people (76% of people with a diagnosis of schizophrenia or drug-induced psychosis) received atypical antipsychotics, and many (71% of people with a diagnosis of schizophrenia or drug-induced psychosis) also received conventional antipsychotics at some stage during their contact with the service. Seventy-five percent of people with a primary diagnosis of bipolar disorder had received a mood stabiliser.

Data reporting number and type of contacts indicated a high level of intensity in the first year, dropping to a somewhat lower level in later years. For the first year of contact, there was a mean of 83 contacts per year between clinicians and clients or significant others in the first year (sd = 63). For clients who had been in the service for two or more years there was a mean of 39 contacts (sd = 25) in the last year of contact. Fifty-nine percent of contacts in the first year involved at least one significant other, indicating a level of family involvement consistent with the IMHC approach. For clients who had been in the service for two or more years the mean percentage of contacts involving at least one significant other was 41%.

Outcomes

The HoNOS and GAF scores derived from files for one year prior to acute onset of the disorder, at the time of acute onset, and at the current time are presented in Table 2. For all variables there was a strongly significant effect for time (F(2,23) >36, p<0.0001 in all cases) reflecting the deterioration of the client at the time of acute onset. A significant improvement was found on all variables between acute onset and the present time/2 years post-entry (t(24) > 8.5, p<0.001, in all cases). A priori comparisons comparing function one year prior to acute onset with current/2 year function showed that the client's current level of function was similar to their function one year prior to onset (t(24)<0.5, ns). On the HoNOS, the clients showed a current level of function that was significantly better than one year prior to acute onset (t(24) = 2.1, p<0.05).

Table 2. HoNOS and GAF scores before and over course of intervention.

Measure	**One year before acute onset**		**At time of onset**		**Current / 2 years post-service entry**	
	mean	**(sd)**	**Mean**	**(sd)**	**mean**	**(sd)**
HoNOS	11.3	(6.3)	20.5	(6.5)	8.2	(6.9)
GAF-symptom	62	(17)	27	(12)	62	(16)
GAF–social activity	66	(20)	31	(11)	64	(17)
GAF-lifestyle activity	63	(22)	29	(13)	63	(17)

Notes: *On HoNOS high score reflects poorer function. On GAF scales, low score reflects poorer function.*

In addition to the results from these scales derived from files, a variety of other outcome measures were determined. Work status was determined from the files. Quality of life, caregiver burden, and residual symptoms, were determined from client and significant other report. These are reported in Table 3. Sixty-four percent of clients had resumed some work or study-role by 6 months post-acute onset. The proportion in more than 20 hours per week continued to rise. The pattern of employment/study at one and two years post-contact is not significantly different from that one year prior to the acute onset (Chi-square (1) < 0.6, ns).

Table 3. Client/significant other reported measures of outcome: current time.

Work/Study Status	**1 yr pre-acute %**	**6 mo post contact %**	**1 yr post contact %**	**2 yr / current %**
Unemployed	24	36	19	20
<20 hours/week	12	24	24	7
>20 hours/week	64	40	57	73
Current Quality of Life	**Client %**	**Sig. Other %**		
Very Poor	0	0		
Poor	0	17		
Average	33	22		
Good	40	22		
Very Good	27	39		
Caregiver Burden	**Sig. Other %**			
None	45			
Slight	33			
Moderate	11			
Severe	11			
Extreme	0			
Residual Mental Health Difficulties	**Mild-Moderate Problem**		**Severe Problem**	
	Client %	**Sig. Other %**	**Client %**	**Sig. Other %**
Anxiety	27	28	0	6
Depression	27	22	0	6
Suicidality	14	16	0	0
Eating difficulties	27	33	0	0
Sleeping difficulties	20	33	7	0
Phobias	13	17	0	0
Obsessions and compulsions	13	12	0	0
Post-Traumatic symptoms	13	16	0	0
Dissociation	7	13	0	0
Mania	0	6	0	0
Sexual difficulties	0		0	

Clients and significant others reported similar levels of quality of life for the client, with 100% of clients and 83% of significant others describing the client's quality of life as average or better. Significant others also described a generally low level of caregiver burden, with 78% rating their burden as none or slight.

Both clients and their significant others were asked about residual mental health difficulties which continued to be experienced by the clients. These data are presented in Table 3, which reports the percentage describing a mild-moderate problem or a more severe problem. Twenty percent or more of clients reported ongoing difficulties with anxiety, depression, eating (too much or too little food), or sleeping. The significant others reported the clients as predominantly having the same difficulties. The difficulties described were mild, with no self-report of severe residual difficulties by clients, and severe difficulties with anxiety and depression only being reported by one significant other respectively.

Utilisation of other Mental Health Services

Another measure of the outcome of an EI team is the extent to which clients avoid relapse that requires the use of other mental health resources such as crisis assistance or inpatient admission. Table 4 presents data pertaining to the use of other mental health services by clients while they were involved with the EI team. Only four of the clients had required an admission to the acute inpatient service during their EI team involvement, translating to a rate of one admission per 12 client-years of service. Crisis team oversight was more frequently used, although the input was usually reasonably brief and the average of eight days per client per year is somewhat deceptive as it is increased markedly by a few cases in which the crisis team undertook daily dispensing of medication for several weeks to enhance adherence. During the time covered by the study only one client made a self-harm attempt, and there were no completed suicides.

Table 4. Utilisation of other Mental Health Services by EI clients.

Type of service required	**During all of EI team involvement**		**Per client-year of EI team involvement**	
	Number of clients requiring Service	**Average episodes**	**Average episodes per year**	**Average days per year**
Acute Inpatient admissions	4 of 25	0.16	0.11	2
Rehabilitation Inpatient admissions	0 of 25	0	0	0
Crisis Team oversight	15 of 25	2.6	1.7	8
Respite Care	5 of 25	0.5	0.3	0.7
Mental Health Act orders	8 of 25	0.4	0.2	24
Self-harm attempts	1 of 25	0.16	0.1	

Correlates of outcome

Onset rate

To test the outcome for people with a more acute vs more chronic onset of their condition, a multivariate analysis of variance (MANOVA) was undertaken with current/2 year GAF and HoNOS scores as the dependent variables and acute/chronic disease course (acute defined as clear prodromal signs for less than one year prior to the initial acute episode) as the grouping variable. The analysis showed no significant main effect for speed of onset (F(5,19) = 1.1, ns) indicating similar levels of current function for people with acute and chronic onset.

Substance use

To test the impact of continuing problematic drug or alcohol use on outcome for client, a MANOVA with current/2 year GAF and HoNOS scores as the dependent variables and continued problematic substance use (yes/no) as the grouping variable was undertaken. Continued problematic substance use was defined as notes in the client's file recording concerns by clients, staff, or significant others regarding substance use after service entry. The MANOVA revealed a significant main effect for continued drug use, F(5,19) = 3.00, $p<0.04$. Univariate analysis showed that clients with a history of continued drug use scored as more disabled on current HoNOS as determined from their file (F(1,23) = 8.0, $p<0.01$), keyworker-completed HoNOS (F(1,23) = 4.4, $p<0.05$), current GAF-symptoms (F(1,23) = 9.2, $p<0.01$), and GAF-function (F(1,23) = 6.9, $p<0.02$), but were not different on GAF social function (F(1,23) = 1.3, ns). Due to missing data, the client and significant-other completed HoNOSs were analysed separately. Significant others rated the clients with a continuing problematic substance abuse as more disabled on the HoNOS (F(1,16) = 4.8, $p<0.05$), but this effect was not evident in the client's self-report HoNOS (F(1,13) = 0.3, $p<0.05$).

A similar multivariate analysis using history of problematic substance use prior to service entry as the grouping variable did not show a significant main effect (F(1,23) = 0.7, ns), indicating no difference in HoNOS and GAF scores between those with a previous problematic substance use history and those without.

Types of service provided

Correlational analysis was undertaken between a range of parameters of service provision and outcome variables to explore the relationship between service provision and outcome. No significant relationships were found. However, correlation between intensity of service provision and outcome was confounded by the responsiveness of the service to clients showing slower progress in this study design. People with greater needs and less favourable progress were likely to receive increased intensity of input in response to this, whereas people who did relatively well would receive more standard amounts of input. Thus, the lack of relationship between increased service provision and better outcome does not imply that greater service intensity was not promoting improved outcome.

Client and significant others' perceptions of, and satisfaction with, service

Quantitative data

Data on client and significant others perceptions of, and satisfaction with, the service provided by the Early Intervention team is summarised in Table 5. The pattern of responses were largely consistent between the clients and significant others, with the significant others giving a somewhat more positive report. Eighty-six to 100% of clients and 94-100% of significant others rated the EI service as having contributed positively to their recovery in terms of mental health, functional ability, coping abilities, happiness and wellbeing, and life satisfaction. Other satisfaction parameters were also quite positive, with 94% of clients and 83% of significant others expressing satisfaction with the speed of response, 100% of clients and 94% of significant others rating staff as moderately-very competent, and all clients and significant others rating themselves as being moderately-very satisfied overall with the service they received.

Table 5. Client and significant other satisfaction with service.

Question/Response Categories	Clients % of sample	Sig. Others % of sample
Mental health at time of first contact with service		
Poor	93	94
Fair	7	6
Good/Excellent	0	0
Change in mental health since entering service		
Improved a lot	80	89
Improved somewhat	20	11
Same as before /worse than before	0	0
Contribution of EI service to change in mental health		
A lot	67	89
A little	27	11
None/not applicable	7	0
Functional ability at time of first contact with service		
Poor	74	56
Fair	13	33
Good	13	6
Excellent	0	6
Change in functional ability since entering service		
Improved a lot	66	72
Improved somewhat	27	22
Same as before /worse than before	7	6
Contribution of EI service to change in functional ability		
A lot	67	67
A little	20	28
None	7	0
Not applicable	7	5
Contribution of EI service to ability to cope or manage better		
A lot	60	83
A little	40	17
No change	0	0
Contribution of EI service to clients' happiness and wellbeing		
A lot	53	72
A little	33	22
No change	13	6
Contribution of EI service to clients' satisfaction with life		
A lot	60	72
A little	33	28
No change	7	0
Satisfaction with speed of response		
Satisfied – fast	67	61
Satisfied – ok	27	22
Not satisfied – slow	6	6
Not satisfied – very slow	0	11
Perception of competence of staff		
Very competent	87	83
Moderately competent	13	11
Somewhat competent	0	6
Not at all competent	0	0
Overall satisfaction with service		
Very satisfied	80	83
Somewhat satisfied	20	17
Somewhat/very dissatisfied	0	0

Qualitative data

Qualitative data regarding client and significant other perceptions of them most and least helpful aspects of the EI service, and suggestions for how to improve the service were also sought. This data is summarised in Table 6. This data also shows a high consistency in the views expressed by clients and significant others, and suggests that the broad-based biopsychosocial approach is well supported by clients and significant others.

Summary/Discussion

The following summary presents the major findings that can be drawn from the study:

Service delivery parameters

- This study identified that there was evidence of the EI team providing an intense level of multidisciplinary input with clients of the EI team and their significant others.
  - A broad range of medications were used, with a high rate of use of atypical antipsychotics for people with schizophrenia spectrum disorders.
  - There was extensive involvement of families in the care provided.
  - The approach taken included extensive use of a broad range of psychosocial inputs, particularly oriented towards skills-training for the client and family.
- The use of the formal IMHC training modules was not consistent, but there was wide teaching of the same skill sets. This is consistent with previous literature indicating significant uptake of the philosophy of the IMHC approach even when the specific modules are not used (Stewart, Shea, & Woodward, 1999).
- Little evidence was found that linked particular aspects of service delivery to improved or worse outcome, but this may have been due to this present study design being relatively weak for addressing this particular question.

Outcome

- Clients showed significant improvements over time on HoNOS and GAF measures, and were on average back to their estimated level of function one year prior to the onset of the disorder.
- There was evidence that despite substantial improvements on overall HoNOS and GAF scores, more than 20% of clients reported continued at-least mild problems with anxiety, depression, sleeping, and eating difficulties, and continuing cognitive difficulties were reported by significant others. These issues could be further addressed in the intervention provided.
- Clients and their significant others both reported high rates of positive change in state of mental health, functional ability, coping ability, happiness well-being and speed of life satisfaction, and tended reported that the EI team had contributed significantly to this change.
- Clients showed return to slightly better than one-year pre-service entry levels for work/study status, with more than 70% being working or studying more than 20 hours per week at the conclusion of the study.

Table 6. Qualitative responses from clients and significant others.

Most Helpful Aspects: Clients	**Most Helpful Aspects: Significant Others**
Staff Attitude Friendly, caring, understanding. Genuine desire to help. Positive, recovery oriented approach.	***Staff Attitude*** Caring, dedicated approach that inspired confidence. Staffs interpersonal skills.
Professional Approach Competent staff making accurate assessments and taking care of safety concerns. Using structured and proactive therapy approaches.	***Professional Approach*** Competent staff providing an efficient, integrated, coordinated approach. Clear management plans and reliable and active follow-up.
Enhancing Social Opportunities Providing opportunities clients to rebuild social networks.	***Support*** Keyworkers, crisis team and other staff providing strong, reliable, and consistent support. Continuity of staff. Took situation seriously but also put it in perspective.
Access to Service Prompt response to initial request for help and easy access to ongoing assistance from staff.	***Access to Service*** Quick response from crisis team and EI staff, frequent contact, home visits, and ease of access to all staff.
Specific Therapy Approaches Education, the right medication, psychiatrist input, psychologist input, drug and alcohol assistance, relaxation skills, and goal setting help.	***Specific Therapy Approaches*** The right medication, help with communication skills and problems solving approaches, psychologist input, keyworker input, help with anxiety management.
Family Involvement Family involvement helpful.	***Family Involvement*** Close involvement of family in information sharing, guidance, and upskilling. Skills taught to client and family together.
Least Helpful Aspects: Clients	**Least Helpful Aspects: Significant Others**
Appointment Rescheduling Appointments changed at short notice.	***Appointment Rescheduling*** Changing of appointment times
Continuity of Care Changes in staff over course of contact. Contact with a non-EI team doctor. Medication changed by temporary doctor.	***Continuity of Care*** Changes in psychiatrist during care. Contact with a non-EI team doctor. Changes in staff
	Problems with Staff Difficulty with a keyworker. Some questions asked too repetitively.
	Difficulties with Therapy Side-effects of medication. Lack of follow-up on some issues, follow-up a little too intensive later in treatment, set goals for client too low, staff level of sympathy sometimes got in the way of progress.

	Family Involvement Some reduction in contact between staff and family over course of contact, slow response to family perception of crisis.
Suggestions for Improvement: Clients	**Suggestions for Improvement: Significant Others**
Increased Services More information on medication, more education, more practical assistance with coping in the community.	***Increased Services*** More information about medication, more key worker time per clients, more access to counselling and psychotherapy services.
Optimism Keep emphasising optimistic outlook	***Continuity of Care*** Long-term retention/continuity of staff, maintain stability of the team.
Enhancing Social Opportunities More help with increasing social activity.	***Further Involvement of Family*** Increase the feedback to family, twice-yearly formal review meeting with staff, client, and family, duplicate appointment card to family if necessary to help ensure attendance, feedback to family about when medication about to run out; give handouts with important information and contact numbers at time of entry, seek the trust of the family and involve them in care as much as possible; actively use the family to reinforce skills learned
Follow-up After Discharge Follow-up after clients are discharged to check continued progress.	***Other*** Keep appointments as first arranged, try to match staff members to clients.

- Quality of life scores, particularly as rated by the clients, tended to be lower than other outcome scores, with only about 65% of clients and significant others rating the client's quality of life as good or very good. These issues could be further addressed in the intervention provided.
- Significant others tended to report a reasonably low level of family burden due to the clients' mental health difficulties. This suggests that they felt well supported by the EI team, and that the family education and upskilling was of benefit.
- Clients with a more chronic course of disorder had significantly poorer estimated HoNOS scores one year prior to service entry, but their outcome at the time of the study was similar to clients with acute onset disorders. This suggests that intensive early intervention work is also effective for those with a more chronic disease course, who are often considered to have a worse prognosis.
- Continued problematic drug and alcohol use following the onset of the disorder lead to significantly worse outcome. Premorbid problems with drug and alcohol did not predict worse outcome. These results suggest that it is the continuation of drug abuse rather than the history of drug abuse which is most problematical for recovery in early psychosis, and suggest that drug and alcohol abuse intervention should be addressed assertively with these clients.

Client and significant other satisfaction

- Clients and significant others both reported high levels of satisfaction and high ratings of staff competence for the EI service.
- Clients and significant others both indicated staff attitude, professionalism, ready access to service, specific therapy approaches, family involvement, as key helpful aspects. Enhancing social opportunities was rated as a helpful aspect by clients. The level of support was rated as helpful by significant others.
- Clients and significant others indicated short notice on appointment changes and some lack of continuity of staff over the duration of treatment as less helpful aspects.
- Clients' and significant others' suggestions for improvement included further increases in the service, more enhancement of social opportunities, more formal follow-up after discharge from the service, increasing the continuity of staff, and further involving the family in the care process.

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