

EARLY DETECTION AND PSYCHOSOCIAL INTERVENTION FOR YOUNG PEOPLE WHO ARE AT RISK OF DEVELOPING LONG TERM SOCIALLY DISABLING SEVERE MENTAL ILLNESS: SHOULD WE GIVE EQUAL PRIORITY TO FUNCTIONAL RECOVERY AND COMPLEX EMOTIONAL DYSFUNCTION AS TO PSYCHOTIC SYMPTOMS?

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## Abstract

There has been considerable progress in the development of early detection and intervention services for cases who may be at risk of developing psychotic disorder. This paper reviews the state of the progress so far, including discussion of the validity of cases selected using the PACE prodromal symptoms criteria, and the benefits of early detection and intervention services for At Risk Mental State cases. We argue that a useful step forward for future development may be to focus on a wider aim of preventing long term socially disabling severe mental illness. The focus of detection and intervention may then move toward young people presenting with complex functional, emotional and behavioural needs rather than solely focussing the presence of attenuated psychotic symptoms. The evidence suggests that many of these cases are at high risk of developing long term mental illness and social disability. Many will also have attenuated psychotic symptoms and are amongst those already identified as at highest risk of psychosis as well as social disability. This approach has advantages in that it is consistent with recent demands for services to address the needs of young people with complex needs who at present do not receive adequate services from either child and adolescent or adult psychiatric services. It is also consistent with understanding of the evolution of social disability in association with severe mental illness provided by cognitive models. The approach focuses resources toward those who are already presenting with highest needs and has few ethical issues. The type of interventions required to address the needs of this group are likely to be multi-systemic and involve combinations of cognitive therapy, assertive case management and vocational interventions. These may be easily adapted from those which have already been found to successfully improve social functioning in young people with frank psychotic disorder.

**Key Words:** early detection, psychotic disorder, intervention services, long term mental illness, social disability, complex needs

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## Introduction

The idea of intervening early in psychosis to prevent socially disabling severe mental illness has a long history (Falloon 1992). Much of the disability and distress associated with severe psychotic conditions occurs at a very early stage with often unmet complex social and emotional needs identifiable long before the onset of frank psychotic symptoms (Yung et al. 2003, Häfner et al. 1999). Retrospective studies have consistently shown that frank psychosis is often preceded by a syndrome which often consists of co-morbid non specific symptoms which include depression, social anxiety, suspiciousness and withdrawal, often in association with substance misuse, conduct disorder and functional impairment (Tien and Eaton 1992; Hollis 2003; Johnstone et al. 2005; Häfner

et al. 1999, 2005). The promise of detecting cases at an early stage and preventing long term disability by delivery of effective intervention and thereby prevention is beguiling, but the task is complex. The challenge is to identify clearly the boundary between health and illness in a way which clearly identifies an "At risk" group and to develop interventions which ameliorate such conditions.

Most of the recent effort has focussed around detection of cases which may be prodromal to psychosis with the aim of preventing episodes of frank psychotic symptoms. Considerable progress has been made spurred by the use of operational criteria which define attenuated psychotic symptoms combined with other signs and were developed in Australia (Yung et al. 2004a, 2004b). Much has been learnt. The field is still at an early stage but it is possible both now to assess

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the validity of current criteria and suggest possibilities for progress. The current criteria are of considerable interest and clearly identify a group at risk and a variety of interventions and service structures show promise. In this paper we highlight that the evidence suggests that those who are at highest risk are young people who have complex co-morbid emotional, behavioural and social problems as well as attenuated psychotic symptoms. Amongst this group preventative strategies which address severe emotional disorder and functional disability may be as important as targeting the emergence of psychotic symptoms. To date the focus on management of prodromal cases has been mainly focussed on management of psychotic symptoms. By contrast, systematic approaches to target functional disability and complex emotional dysfunction has been relatively neglected. We argue that current evidence on the evolution of social disability in severe mental illness suggests that a more integrated approach to complex youth mental health cases is needed. Effective strategies of prevention in complex youth mental health presentations need to target social disability and emotional dysfunction as well as psychosis. Such strategies can build on the frameworks and treatments offered by existing prodromal clinics but also incorporate interventions to address social disability which have been successfully developed in early intervention for psychosis services.

### Prodromal cases identified by PACE criteria

The interest in prevention and early detection in severe mental illness has naturally led to a focus on cases before first episode of psychosis. Such an interest has a long history but most centres have followed the work carried out in Australia defining a specific group of high risk cases based on a combination of symptomatic markers the presence of low level or attenuated psychotic symptoms (see Yung et al. 2004b). Work in the USA has used similar criteria (Cannon et al. 2008). The criteria used combines symptoms and signs with risk factors. Cases identified using PACE criteria are from help seeking groups who have a perceived need for care and are in a younger age group between 14-30. They meet criteria for one of three groups (see Yung et al. 2004b for full description).

Attenuated symptoms: have experienced subthreshold (i.e. less severe) psychotic symptoms in the past year.

Brief limited intermittent psychotic symptoms: have experienced episodes of frank psychotic symptoms for less than a week which have abated naturally.

Trait and state risk factor: have a first degree relative with a psychotic disorder or meet diagnosis for schizotypal personality disorder and have experienced a significant decrease in social functioning over the past year.

### The validity of the attenuated symptoms criteria as prodromal to psychotic disorders

The key original question of this research has been the degree to which the criteria can predict the

subsequent onset of frank psychotic disorder (see Yung et al. 2009 for review). These studies clearly show that it is possible to detect and engage a group of young people who have demonstrable and often complex needs and who are at high risk of developing psychosis. The first set of studies showed that about 35% of cases detected in this way would subsequently meet diagnostic criteria for psychotic disorder within a year despite provision of supportive counselling, basic case management and antidepressant medication (Ruhman, Schultze-Lutter and Klosterkötter 2003). More recent studies appear to indicate that the transition rate has fallen, with only around 16% now estimated to exacerbate to the degree to which they meet diagnostic criteria for psychotic disorder within a year (Yung et al. 2009). A variety of factors may account for this drop. One reason may be changes in sampling. It is known that symptoms of psychosis are actually common in the normal population and on a continuum with anomalies of normal experience (e.g. van Os et al. 2000). Widening sampling may therefore increase detection of cases who meet symptomatic criteria but are not at high risk of developing psychotic disorder. These cases are termed false positive cases. As changes in referral patterns have widened from more severe and complex help seeking cases in secondary care to picking up cases from schools and general population different types of cases may be being identified including those at lower degree of risk. However, it is also the case that centres which detect prodromal cases are also often offering treatments of variable types which often include sophisticated interventions. It is possible that these treatments are having an impact on the transition rate. It is often difficult to tease out these competing explanations, particularly from naturalistic studies.

What has been discovered is a way of detecting samples of cases of help seeking individuals who are at high risk. Even with a lowered risk of transition of 16% in the sample the relative risk compared to the general population is very high, over 400 times higher than that would be expected in the general population. The PACE criteria clearly identify a group of young people with complex needs, distress and disability. The clinical presentations of the group are similar to those who meet formal criteria for schizotypal personality disorder and can be distinguished from normal and clinical controls (Woods et al. 2009). There is also extensive evidence which suggests that this group commonly shows neurobiological markers of psychotic endophenotypes (see Pantellis et al. 2009). However, the group identified by PACE criteria are not homogeneous. Clinically, they show marked heterogeneity. Some are relatively mild cases with specific symptomatic problems and relatively specific needs, whereas others can be highly complex cases with severe emotional and functional disability. Some cases clearly show neurobiological signs many others do not. The current evidence clearly suggests that it is the cases with complex presentations which include co-morbid syndromes of attenuated psychotic symptoms in association with functional disability and substance misuse which are at the highest risk (Yung et al. 2003).

Intervention studies provide the most promising way of testing the validity of the criteria and also teasing out critical aspects of the influence of treatment. These

are at an early stage and at present there is not definitive evidence for either medication or psychological treatments. The field is balanced on equipoise. Randomised controlled trials suggest that there is some evidence which supports the use of antipsychotic medication for those who at a later stage who show clearer psychotic symptoms, but the current evidence is much less convincing for the group as a whole (see McGorry et al. 2002, McGlashan et al. 2006, Philips et al. 2009 for review). The debate about using neuroleptic medications in this group is highly contentious, especially as many negative indications of adverse side effects including weight gain have been detected. The dangers of using neuroleptic medications amongst young people who may not be at risk is clear, and the benefit outweighing the cost has yet to be demonstrated. It is also clear that neuroleptic medication is also not popular with young people and many will refuse to take it (Addington and Addington 2005). The use of psychosocial interventions is less contentious and cognitive therapy may be promising especially as it offers the opportunity of directly addressing attenuated psychotic symptoms but can also manage emotional disorder and social impairment as well as psychosis. Early trials of cognitive therapy are promising (Morrison et al. 2004, 2007; Bechdolf et al. 2006) with suggestions of reductions in transition to psychotic disorder at 12 and 24 months and with associated benefits on depression and social functioning. Other large trials are being carried out in UK, Holland and USA and the findings are awaited with interest. To date no investigations have been carried out to directly target complex emotional and behavioural dysfunction and social disability amongst the more severe and complex prodromal cases, although these needs have been highlighted (Philips et al. 2009).

### The management of prodromal cases

Much has been learnt about the detection and management of young people with complex mental health problems from the experience of clinicians in prodromal services. These types of services have been extensively described (see French and Morrison 2004, Yung et al. 2004a). Several demonstration sites across the world have shown that it is possible for secondary mental health care services to reach in and detect groups of young people at risk of psychosis with considerable success. There has been considerable effort put into engaging young people and in making these services accessible and youth oriented. Typically such early detection and intervention services now reach across child and adolescent mental health, primary care and also youth services, schools and clubs etc.

The basis of all such services is youth oriented engagement and basic case management, risk management and mental state monitoring. This intervention is considerably more than current services offer as treatment as usual and widely welcomed by help seeking young people and their families. Typically what is offered as a basic intervention is supportive therapy with case management and stress management (Yung et al. 2004a). Cognitive therapy is also highly suited to this group (French and Morrison 2004). Cognitive

therapy for prodromal syndromes draws many techniques from well established short term structured cognitive therapy for depression and anxiety disorders, it thus targets emotional disorder and social withdrawal as well having specific techniques to address psychotic symptoms. It is of note that all these interventions start with a primary focus on the current presenting problems as highlighted by young people with prodromal symptoms. Such problems are diverse but frequently include generic problems such as emotional difficulties, relationship difficulties, problems with schooling or work, loneliness, social withdrawal and substance misuse. The success in managing and targeting the problems identified by the young people themselves may be a large aspect of maintaining engagement, as well as managing underlying issues. There are differences in the degree to which the issue of individuals being at potential risk of psychotic disorder is emphasised. In the UK the approach is to normalise and decatastrophise the experience of psychotic symptoms following cognitive therapy for psychosis approaches (French and Morrison 2004) while attempting to address the key potential mediators of transition. By contrast clinicians in the USA appear to take a clearer stand on suggesting to users and family members that they are at risk of developing long term psychotic disorder, and may need to take medication to manage this. These differences mirror differences in the structure of services with a more traditional biomedical approach and wider use of antipsychotic medication in USA, whereas in Europe and Australia a more cautious approach to labelling and use of medication is found.

From a clinical perspective the needs of the At risk group are diverse and range from a substantive minority of cases presenting with problems which are similar to primary care presentations of social anxiety or social phobia up to a range of what are highly complex presentations. Amongst the more complex cases conduct disorder and high levels of risk to self and others are very common. Also common is high levels of comorbid complex emotional needs, typically against a background of social exclusion and disadvantage and already present severe functional impairment. The potential service responses to such clients on a needs basis can then vary from addressing relatively discrete problems which may respond to short term psychological therapy to highly complex mental health problems which require an integrated and multisystemic service response. Currently some services, such as those in Germany provide a staged model, but to date these focus on management of psychotic symptoms with milder symptomatic cases offered psychological therapy and more severe cases offered medication. To date no service appears to offer a stepped care approach which includes a more systematic approach to address the complex emotional and functional social recovery needs of more complex prodromal cases even though these are those identified as being at highest risk..

Despite compelling arguments for prevention and considerable clinical enthusiasm there is still considerable debate regarding the validity of early detection and intervention for psychosis (Warner 2005). Where prodromal clinics have existed for some time,

such services do not prevent the onset of psychosis in the majority of cases. These are criteria which detect some but by no means all, or even the majority of cases who go on to develop psychotic disorder. As current services focus primarily on the issue of addressing risk of psychosis, ethical issues have been raised about the appropriate management of the false positive cases, who meet existing criteria but may be at lesser risk. Amongst these cases there are real fears over stigmatisation, labelling, inducing unnecessary fear, and where atypical antipsychotic medication is offered over misuse of drugs and side effects. Such issues need to be handled sensitively. As mental health services are overburdened and underfunded debate concerns as to whether, outside of research contexts, services which manage false positive cases offer real benefits and can be afforded. However, the argument that these efforts should be abandoned seems premature, indeed somewhat hopeless if not nihilistic, especially in the context of policy initiatives and wider public demand for prevention and change in youth mental health services (Mental Health Foundation 2001). Real progress has been made and service models have been developed to manage the contentious issues ethically and with considerable clinical sensitivity. Perhaps the most pragmatic justification of the case for early detection and intervention services is that the cases identified are already a help seeking, distressed and often disabled group of young people with complex unmet needs who deserve interventions in their own right. It is being increasingly recognised that young people with severe mental illness are a group who are often difficult to engage in treatment and for whom there is an urgent need to provide effective care and develop effective treatments (Mental Health Foundation 2001). Amongst the more complex youth mental health cases it may be highly unethical not to intervene, and possibly neglect that services fail to detect or offer adequate services to this group with very high needs. Perhaps the first step is to identify the needs of such cases and develop effective treatments for the presenting needs, the issue of prevention can then be explored with respect to the longer term outcomes of effective treatment.

### Should all severe and complex youth mental health problems associated with functional disability be regarded as at risk?

It is now being widely recognised that most chronic and severe mental health problems begin in adolescence. 75% of all mental illnesses emerge between 15 and 25 (Kessler et al. 2005, Kim-Cohen et al. 2003). Mental health problems are common in adolescence affecting up to one in five, but not all become chronic. Between 3% and 5% may show more persistent and complex problems (Kim-Cohen et al. 2003). Amongst this group it is the emergence of social decline in association with a pattern of comorbid non specific psychopathology (depression and social anxiety) which appears to be a key indicator of long term social disability across disorders (Hofstra et al. 2001, Harrington 1990, Jones et al. 1993). This is clearly indicated by retrospective studies of psychotic disorders, where social decline begins long before

emergence detection and treatment of psychotic symptoms or a psychotic episode itself (Häfner et al. 1999, 2005). Several studies also indicate that patterns of complex social anxiety, depression and social withdrawal in childhood and adolescence have been shown to precede social disabling psychotic disorder in later life. Prospective longitudinal studies also indicate that it is that social decline in adolescence is a key predictor of long term social outcome in depression. Social impairment in bipolar disorder is also observable in adolescence some years before the occurrence of frank bipolar symptoms and onset of treatment. Again these studies reiterate that some of the key problems which may present targets for early intervention are non specific but co-morbid severe and enduring emotional problems particularly depression with social anxiety in association with early signs of social decline. While non specific these are clearly pre-morbid to psychotic disorders as well as to other socially disabling disorders including personality disorders and mood disorders.

A study of the long term consequences of conduct disorder using the Dunedin birth cohort study provides an interesting illustration of how attempts to define the cases with highest needs and long term risk from the study of any single disorder always leads to a similar group with complex comorbid mental health problems often including some degree of psychotic symptoms (Kim-Cohen et al. 2003). This epidemiological study found that about 4% of the 1000 cases sampled at birth and followed up had conduct disorder in combination comorbid mental health problems and attenuated psychotic symptoms in adolescence. This group had the worst long term outcomes of the whole cohort in terms of both long term mental health problems, functional impairment and unemployment. The cases at highest risk across disorders have early functional disability, a syndrome of comorbid mental health problems and frequently some degree of psychotic symptoms. It should be noted that many cases of this type are probably already identified by PACE criteria, but some may be excluded on the basis of not quite meeting the symptom criteria for attenuated psychotic symptoms. If the goal is prevention of long term social disability it may be worth investigating if emphasising more clearly early functional impairment and comorbid emotional and behavioural dysfunction should take priority in selecting cases for intensive intervention in prevention clinics rather than psychotic symptoms alone. Management and prevention with these types of problems may require targeting of social, behavioural and emotional disturbance as well as psychosis.

Despite poor outcomes and cost of disorders leading to social decline young people with complex needs often do not often access treatment. Fewer than 25% of young people and their families get access to specialist mental health services. More complex cases are found in areas of social disadvantage, and in youth justice, local authority care and learning disability services. It is now being widely recognised that there is a major gap in identifying and managing the mental health problems of young people and major service reorganisation may be required to meet their needs. Young people themselves call for different kinds of points of access with are meet their needs. Their call is for services which are youth oriented, accessible at

places where young people go, with a recovery focus on health, focus on identity and on resilience (Mental Health Foundation 2004).

In this context services which have been developed as preventative for psychosis may actually represent a model for treating serious youth mental health problems whose needs at present remain undetected and for whom existing services provide few effective interventions. A widening of scope of early intervention to the prevention of social disability and complex emotional and behavioural disturbance clearly overcomes the false positive issue. However, it may also require a rethink of the types of intervention available. At present there is a lack of an evidence base for interventions which can address complex youth mental health problems, although multisystemic therapy appears promising for antisocial behaviour and substance misuse (Henggeler et al. 2002). Below we make an argument that the types of intensive case management psychosocial interventions developed for young people with psychosis may also be applicable for young people with complex needs. First, we consider what we know about our understanding of the evolution of social disability in association with complex mental health problems.

### Understanding the evolution of complex emotional and behavioural problems, psychosis and social disability: from diagnosis and clinical staging to a psychological formulation

Arguments are now being made that it is time to consider including prodromal cases, as currently identified, as a diagnostic category (Carpenter 2009). As described above such cases can now be identified reliably and there is now some consensus on management strategies if not definitive evidence on approaches to treatment. The inclusion of prodromal cases formally within diagnostic systems provides a consensus judgement that this group has needs which require independent recognition as an illness. Such formal identification of prodromal cases as illnesses may strengthen arguments for resource allocation to this area. Diagnostic recognition of prodromal youth mental health cases may also overcome what may be current barriers to offering intervention to this group which are associated with waiting till cases meet formal criteria for what is currently identified as a severe mental health problem. However, premature classification can also obscure the fact that we know less than we think we do. Diagnostic concepts in psychiatry can have utility but have to be regarded as operational groupings with little reference to underlying causes. There needs to be particular caution in using any provisional diagnosis as a guide to selection and treatment where treatments as yet have not been clearly shown to be effective, as is the case in prodromal cases.

McGorry et al. (2009) offer clinical staging as an alternative to systematically thinking about prevention in psychiatry. This suggests that akin to other medical conditions there may be stages in evolution of psychotic disorders from universal factors, to selective factors to more indicated factors which become more specific in the evolution to more discrete disorders. Analogies are made with preventative interventions widely used in

medicine such as monitoring of blood pressure or cancer screening. However, again this is a provisional framework which requires evaluation, currently it is not clear which features should definitively characterise basis of screening in mental health. From a theoretical perspective there is a consensus that all severe psychiatric disorders arise from a pool of genetic and environmental interactions. However, the genes involved a diverse and individual biological markers confer only a tiny relative risk, a range of environmental factors are also indicated but these are broad and non-specific (including stress, social disadvantage, trauma and substance misuse). The current PACE criteria which define risk on the basis of psychotic symptoms combined with young age, help seeking and subgroups of genetic risk and functional impairment, are a useful start but represent an arbitrary point on a continua from psychosis to normality (van Os et al. 2000). Below we suggest that a psychological formulation may suggest that an alternative may be to define risk of socially disabling severe mental health problems more clearly on basis of the presence of early functional impairment and comorbid emotional and behavioural dysfunction, with perhaps a lower threshold of psychotic symptoms.

Cognitive models may be useful as they highlight factors which may mediate between inherited or acquired vulnerability and the environment in a manner which suggest intervention (Garety et al. 2006). These models suggest that what may characterise the evolution of chronic socially disabling psychotic disorder may be interaction between emotional dysfunction, psychosis and social disability. From a psychological perspective cognitive models suggest that emotional dysfunction and negative beliefs about self and others may have an important role in accelerating the course of psychosis (Garety et al. 2006, Birchwood 2003). Adolescence is a time of fluctuating emotions and some degree of fluctuating negative affect is to be expected. However, whereas some emotional instability in affect in adolescence is common, severe and complex emotional disorder which becomes stable and severe is not. The occurrence of stable patterns of depression and anxiety may represent a risk factor in those already vulnerable which precedes psychosis. It is clearly the case that a build up of emotional dysfunction is amongst the earliest symptoms of psychotic disorder (Häfner et al. 1999, 2005). Similarly adolescence is a time of identity formation and all adolescents may go through periods of sensitivity about self in relation to others. But particular care is needed where individuals start to develop stable negative self identities see others as dangerous and self as vulnerable. Again some degree of fluctuation of self esteem is to be expected in adolescence, but stable patterns of negative evaluation of self and others is uncommon, is associated with both psychosis and emotional dysfunction, and may mediate the pathways between environmental factors such as trauma and psychosis. Perhaps what is most characteristic the emotional disorder representing highest risk of long term mental health problems is emotional dysfunction and negative appraisals of self and others which underpins generalised social sensitivity and withdrawal (Häfner et al. 2005, Johnstone et al. 2005). The detection and management of this type of generalised social anxiety problem may

potentially be an important target for preventative interventions in youth mental health, especially where it occurs comorbid to depression, substance misuse and mild psychotic symptoms.

In attempting to prevent and understand socially disabling severe mental illness it may also be important for us to be clear what we are predicting, transition to psychosis is not social disabling severe mental illness. It has long been known that social disability and psychotic symptoms are relatively independent dimensions of outcome (Strauss and Carpenter 1977) and that people can have episodes of psychosis and return to functioning. If our main interest is preventing socially disabling psychotic illness then possibly the best approach may be to directly examine the factors which lead to the maintenance of social disability at an early stage. Developing a model of the factors which underpin social disability associated with severe mental illness may provide a basis for new approaches to intervention. We have started such a programme of work and here a different set of factors may be involved. One factor is clearly the type of emotional disorder which leads to social sensitivity and withdrawal described above. However, other factors include the availability of social supports and social opportunities. Without these there is no scope for social recovery. These observations are consistent with the evidence that social disadvantage is a factor in social disabling psychotic illness and underscores the need for interventions to address functional recovery at an early stage (Killackey et al. 2009). Furthermore, at the psychological level, a persons identity which may underpin their motivation, hope and a sense of agency, purpose and meaning may also be important. Factors relating to fostering a positive sense of identity have been highlighted as critical in addressing the needs of young people. Interventions can be developed to directly target these dimensions. Case management interventions can help create social supports and social opportunities. Cognitive therapy interventions can help consolidate positive sense of identity and purpose, foster motivation and hope. We have already demonstrated that hope and positive identity may mediate the effects of psychological intervention on social recovery outcomes (Hodgekins and Fowler 2010).

In summary, psychological formulation suggests that preventative interventions should target emotional and behavioural dysfunction and social disability, as well as psychotic symptoms. These types of psychological interventions need to focus on identity and hope, combining with case management strategies to create social opportunities, and address emotional dysfunction including social anxiety and withdrawal as well as managing psychotic symptoms. The development of such interventions can draw from successful experience with early intervention in psychotic disorder as we describe below.

**What have we learnt about effective psychosocial interventions to address complex social disabling severe mental illness from early psychosis?**

Over the last 15 years considerable progress has been made in developing interventions which target

social disability in early psychosis. Several trials have shown that improved engagement, reduced relapse rates and better social relationships and vocational recovery can be achieved with specialised early psychosis programmes that include assertive community case management and phase specific psychosocial interventions (Petersen et al. 2005, Garety et al. 2006). Also important may be the availability of functional recovery interventions such as individual placement and support (Killackey et al. 2009).

The type of psychosocial care delivered most widely delivered within early intervention teams is a specific form of assertive outreach case management, this has particular sensitivity to problems of engagement and takes specific account of the particular needs and wishes of young people, and has a recovery oriented focus emphasising functional social and vocational recovery goals as well as symptom management. In our own service this approach is delivered by case managers who have skills in cognitive behaviour therapy and family work, but can weave this into an outreach model working with challenging clients in their own homes. Also important in our work has been the influence of individual placement and support model of supported employment, with young people this type of work is widened to include involvement voluntary activities and education as well as work. This interweaving of skills of youth and recovery orientation with specific skills in CBT and family work, assertive outreach case management and individual placement and support into a single intervention is recognisable in many services in the UK and Australia. It may be argued that this integrated approach represents an important bastion of care in modern mental health service. It may very well be a form of specialist intervention highly suitable and applicable to improving outcomes in young people who present with other types complex disorder with poor functional outcomes and in particular prodromal cases with functional impairment.

A recent historical control study carried out in Norfolk is suggestive of the impact of this type of intervention on improving social outcomes (Fowler et al. 2009a). The two year outcomes of patients receiving new service focussing on social recovery using assertive case management combined with cognitive therapy, family work and individual placement and support was compared with the results of an earlier cohort who had received a traditional generic Community Mental Health Team psychiatric service. The outcomes from the traditional generic service were poor with only 15% making full or partial social recovery at 2 years and over 60% of cases having extremely impaired social functioning at this stage. Unfortunately, this level of social outcome is consistent with the typical social recovery outcomes from traditional services which lack a specific focus on engaging young people around their wishes and needs, resort to hospitalisation, frequently using coercive methods, and lack a social recovery focus. By contrast the introduction of intensive early intervention service including cognitive therapy, case management and individual placement and support interventions has led to over 50% making a full or partial functional recovery identified as engagement in work or education. The longer term health economic benefits of this type of outcome are clear. If this level of benefit

can be obtained with cases with frank psychotic disorder who often already have long durations of untreated mental health issues and engrained social disability by the time they become psychotic, there is reason to think such interventions could be effective earlier.

Based on this model of care we subsequently carried out a randomised controlled trial using a more systematic cognitive therapy form of this approach (Fowler et al. 2009b). This study was carried out amongst a sample of already severely functionally impaired young people with psychotic disorder, and compared intervention with an active case management treatment control. The study showed significant gains in functioning, hope and symptom reduction amongst cases with non-affective psychosis. There was a differential gain of over 8 hours per week more of structured activity in the intervention group. The treatment also showed clear health economic benefits. We also showed that the efforts specifically targeting identity led to changes in positive appraisals of self and others, and hope which mediated changes in activity (Hodgekins and Fowler 2010). While further work needs to be carried out this work shows the promise of a therapeutic interventions which consists of a combination of intensive outreach case management, cognitive behaviour therapy and individual placement and support strategies. This approach shares the key elements of youth orientation, management of emotional dysfunction psychotic symptoms and the generic psychosocial problems presented by individuals and willingness to adopt assertive outreach working which are present in existing cognitive therapy for at risk mental state (French and Morrison 2004). At present we are currently engaged in further work refining the elements of cognitive behaviour therapy to also strengthen techniques focussing on a sense of positive identity and resilience and managing with social anxiety, avoidance and paranoia. As it has already been shown that this type of intervention can be effective severely functionally impaired cases with psychotic disorder who already had stable and long term patterns of social disability it may be equally effective with cases who present severe and complex social disability at an earlier stage. Our pilot experience in using this type of approach includes work with teenagers aged 14-18 who are showing very early signs of social impairment associated with comorbid emotional and behavioural problems and indications of psychosis is very promising. Clearly, further research is needed, but the question is if such cases can be identified and clearly have complex needs: Why wait?

## Conclusion

The current research programme on early detection and intervention with young people with at risk mental states has been a considerable success in developing service models and strategies for engaging and managing young people at risk of developing socially disabling severe mental illness. In this paper we have argued that further developments should include systematic strategies to target the complex syndromes of emotional and behavioural dysfunction and functional disability which characterise the

presentations of the young people at highest risk. Unfortunately, at present often these complex presentations of youth mental health problems do not come to the attention of services and where they do systematic programmes to address their needs are not available. Comprehensive preventative intervention programmes for youth mental illness are required and such programmes need to address complex emotional and behavioural problems and social disability as well as psychotic symptoms.

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