Psychology in Spain, 2007, Vol. 11. No 1, 1-23

EARLY DETECTION AND INTERVENTION IN PSYCHOSIS: THE STATE OF THE ART

Oscar Vallina Fernández*, Serafín Lemos Giráldez** and Purification Fernández Iglesias**
**Health Service of Cantabria. **University of Oviedo*

The possibility of early intervention in psychotic disorders in order to alter their typical negative course is currently generating increasing interest in the scientific and professional community. In this paper we consider the state of the art in research and clinical implementation, as well as the organization of services for the different early phases of the illness, reporting both new methods of intervention and the intital and promising results.
Keywords: *Early Psychosis, Psychological Treatments, Schizophrenia Prodrome.*

La posibilidad de intervenir precozmente en los trastornos psicóticos y alterar con ello el tradicional curso negativo de la enfermedad está generando un creciente interés en la comunidad científica y profesional. En este trabajo, presentamos el momento en que se encuentran las investigaciones y los desarrollos clínicos y de organización de servicios en las distintas fases iniciales de la enfermedad, describiendo tanto las nuevas formas de intervención como sus primeros y esperanzadores resultados.
Palabras claves: *psicosis temprana, tratamientos psicológicos, pródromos de la esquizofrenia.*

The treatment of psychosis has been undergoing a substantial transformation in the last ten years. The shift in focus from the stable or residual phase of the illness towards its initial stages has led to a series of innovations and advances not only in assessment and diagnosis but also in therapeutic approaches, and the consequent reorganization of care services. Although with respect to these latter aspects such services are still relatively small-scale and in an experimental phase of organization and development (except in the United Kingdom), the impact of their proposals and the research on them are certain to lead to a review of current working methods in the field of psychosis.

The most recent epidemiological studies have shown the importance of the period prior to patients beginning treatment for their illness. This initial time, known as *duration of untreated illness* (DUI), covers two clearly distinct periods. On the one hand, the period from the appearance of the first non-specific symptoms in a healthy individual (depression, anxiety, insomnia) until the emergence of the initial, attenuated psychotic symptoms (suspiciousness, non-delusional referentiality, social isolation), referred to as the prodromal stage or high-risk mental state, and which can last from two to five years. And on the other, the period during which the person presents clearly psychotic symptoms but is as yet not receiving treatment, and known as *duration of untreated psychosis* (DUP). These two periods have come to constitute a justification of early intervention insofar as they are showing themselves to be crucial in relation to the course of the illness and recovery from it.

Early intervention in psychosis involves two elements that distinguish it from other common forms of care: early detection and application of the most effective specific treatment for each initial phase of the illness. Both elements can be applied as complements to standard forms of care, or by specialist early intervention teams (Marshall & Lockwood, 2005).

Early detection can be defined as the identification of those at risk of developing a psychosis – such as those displaying prodromal symptoms – but who have never presented a psychotic state, or as the identification of those who have already developed the psychosis but have not yet received the appropriate treatment.

Specific treatments for each phase refers to those treatments (psychological, physical or social) specifically aimed at impeding a progression towards psychosis in people with prodromal symptoms, or at promoting recovery in those who have recently experienced their first psychotic episode.

These forms of treatment adapted to the different stages of the illness would be provided by early intervention teams, teams that would provide suitable

The original Spanish version of this paper has been previously published in *Apuntes de Psicología*, 2006, Vol. 24. No 1-3, 185-221
.....
Correspondence concerning this article should be addressed to Oscar Vallina Fernández. Hospital Sierrallana. Consultas externas. Avda de España, s/n. Torrelavega (Santander), Spain.
E-mail: ovallina@cop.es

care for people at the prodromal or initial stages of psychosis, and which would be responsible for all the care necessary for such patients in these early stages.

PSYCHOLOGICAL TREATMENTS IN THE INITIAL PHASES OF PSYCHOSIS

The current challenge for the application of psychological interventions in the initial phases of psychosis is twofold. It consists, on the one hand, in adapting those forms of treatment that have already demonstrated their efficacy in the stable and residual phases of the illness to its early stages; and on the other, in the development of new forms of therapy that fit the specific characteristics of these stages of the illness, inaccessible to exclusively pharmacological treatments. In any case, the notion of including psychological interventions based on evidence as an essential element in any wide-ranging programme for quality early intervention in psychosis is by no means a capricious one; rather, it is based on a series of points emerging from experimentation and clinical practice, which McGorry (2004) sets out quite clearly (Table 1).

Haddock and Lewis (2005), in their review of psychological treatments currently demonstrating their utility and efficacy, conclude that, on the as-yet scarcely adequate evidence of the few experimental studies carried out, family and cognitive-behavioural interventions emerge as two acceptable forms of therapy for the early phases of psychosis. For his part, McGorry (2000) maintains that, regardless of the form of psychological intervention selected, psychological treatments are obliged to fulfil a series of basic conditions:

Table 1
Utility of psychological treatments in early psychosis (McGorry, 2004)

PSYCHOLOGICAL TREATMENTS ARE USEFUL IN EARLY PSYCHOSIS FOR:
- Developing a therapeutic alliance.
- Providing emotional support in the face of worrying subjective psychotic experiences and stigma.
- Promoting understanding about psychosis, active participation in treatment and drug compliance.
- Dealing specifically with complex individual symptoms, comorbidities and maladaptive schemas.
- Reducing resistance to treatment.
- Enhancing coping and adaptation.
- Improving cognitive functioning.
- Improving the interpersonal relationships that may have been a problem in some cases, as a result of risk factors independent of the psychosis, and may have worsened or been interrupted because of the effects of the illness.
- Providing support and help for members of the patient's family.
- Promoting employment recovery.
- Reducing the risk of suicide and aggression.
- Preventing relapses.
- Reducing damage due to comorbid drug use.
- Reducing the risk of transition from ultra high-risk states to psychosis.

1. To be based on theories that can be clinically assessed in individuals and groups of patients.
2. To be highly compatible with the biological models of vulnerability and the disorder.
3. To reflect pragmatism with regard to the duration and scope of the intervention.
4. To be offered as part of a multimodal treatment.
5. To be available in a wide range of forms, given the extensive and varied needs of patients and their families.
6. To be sequenced and varied, according to the phase of the illness and the different needs of each of its phases.

Following the classification suggested by Haddock and Lewis (2005), the focus of research on psychological treatments in early psychosis has been organized around the main categories related to the phases through which people pass during the onset of psychosis, which would be as follows:

1. Interventions focused on the prodromal phase, or phase of high risk of the development of psychosis.
2. Interventions focused on the initial acute phase of psychosis.
3. Interventions focused on the recovery or post-psychotic phase.
4. Interventions focused on services.

In the course of the present work we shall present a description of the current state of early intervention in psychosis for each one of these stages.

INTERVENTIONS IN THE PHASE OF HIGH RISK OF DEVELOPMENT OF PSYCHOSIS (PRODROMAL)

Currently there are a substantial number of centres and programmes worldwide devoted to research on and treatment of prepsychotic phases; moreover, such interest is growing, and has led to the recent founding of the *International Prodromal Research Network* (IPRN). Each one of these initiatives has its own features, though a series of elements common to all such clinical research programmes can be identified (McGorry, Young & Phillips, 2003; Phillips, McGorry, Yung, McGlashan, Cornblatt & Klosterkötter, 2005):

a) All the centres attempt to identify young people in situations of high risk of developing a psychosis in the short term, using community-centred educational and recruitment strategies.
b) All services use a combination of factors of risk mental states and genetic or trait risk factors.
c) The patient's request for help is a necessary

condition for entry to these programmes. Those who are asymptomatic or who do not seek help are not included.

d) These centres or programmes are generally financed by research grants; they are still rarely found as stable elements within systems of mental health services.
e) All centres provide a clinical service in addition to their work of research and assessment on the interventions.
f) There are two different clinical foci, but which overlap: the management of current difficulties and the monitoring and possible prevention or attenuation of the emergent psychosis.
g) Where neuroleptic medication is offered, the norm is the use of low doses of atypical neuroleptics.
h) The services are linked to early psychosis services, or they themselves provide treatment for first-episode psychosis.
i) Rates of progression to psychosis are comparable across all centres, covering a range of 22% to 54% over a period of one year.

For the purposes of the present work we shall focus on those programmes which, apart from being pioneering in this area and based at prestigious research and treatment centres, have given rise to experimental work that has permitted us to emerge from the previous state of total ignorance, contributing some basic and preliminary but highly important knowledge.

The Buckingham Project

During the period 1984 to 1988, Falloon, working in the region of Buckingham (England), carried out the first non-controlled study on intensive early intervention in adults with prodromal symptoms of schizophrenia. The work was designed to explore the idea, proposed in the latest studies on intervention in the prodromal phases of psychosis, that the first psychotic episodes could be avoided or delayed through early detection and immediate application of effective therapeutic strategies (Falloon, 1992).

To this end, Falloon developed an intervention strategy that included an early detection procedure based on training GPs in the recognition of prodromal symptoms of schizophrenia (using the DSM-III prodrome list); patients thus identified were to be immediately referred to a specialist mental health team for more detailed assessment.

In a second phase, and for those identified is in the prodromal phase of schizophrenia, this specialist team applied an in-home individualized treatment protocol that included: education about schizophrenia, stress management focusing on the home, and low-dose neuroleptic medication (chlorpromazine at 25-100 mg/day) in cases with a predominance of perceptual alterations, cognitive deterioration, agitation or sleep disorders.

Finally, the strategy involved an ongoing attention procedure that included training in recognition of the recurrence of prodromal symptoms for patients and their families, supervision by the mental health team for two years, stress management for dealing with crises, and pharmacological treatment, which was maintained until remission of the prodromal symptoms.

As far as the results of this work are concerned, annual incidence of schizophrenia in the region fell from its normal 7.4/100,000 to 0.7/100,000 (Falloon, Kydd, Coverdale & Tannis, 1996). However, the small sample size (16 patients) and the methodological limitations of the study, attenuate the significance of its proposals.

Personal Assessment and Crisis Evaluation (PACE) Clinic

Starting out as a section of a broad programme of research on early psychosis, associated with the Early Psychosis Prevention and Intervention Centre (EPPIC), it became the international centre of reference for the prospective study of the prodromal phase of psychosis. Its groups were defined as high-risk, the criterion most widely adopted by other centres (with some minor corrections in a few cases) in their research.

As a research programme it has three main objectives:

1. To improve understanding of the neurobiological and psychosocial processes involved in the prepsychotic phase that contribute to the onset of acute psychosis, and to establish criteria that permit the detection of those in a situation of high risk of developing a psychosis in the short term.
2. To develop psychological and pharmacological interventions that impede or delay the onset of psychosis and to assess their level of safety and efficacy in this phase.
3. To set up appropriate and accessible clinical services for these young people at risk (Edwards & McGorry, 2004; Phillips, Leicester, O'Dwyer, Francey, Koutsogiannis, Abdel-baki, Kelly, Jones, Vay, Yung, McGorry, 2002).

In order to detect those in situations of risk and reduce the risk of false positives in the identification, a strategy was developed based on the combination of two types of risk factor, trait (family antecedents of first-degree

psychosis, presence of schizotypal traits in the patient) and state (age between 16 and 30, presence of attenuated psychotic symptoms, deterioration of social functioning).

Thus, the programme recruits individuals experiencing subthreshold changes in their mental states that may suggest the presence of an emergent psychotic process, but who are not yet experiencing acute levels of disorder diagnosable as psychosis.

These subthreshold psychotic symptoms are conceptualized as *high-risk mental states*, since their presence does not predict the inevitable development of the illness. This is in contrast to the traditional concept of prodrome, which does indeed indicate the presence of the onset of illness and its inevitable subsequent development (Yung & McGorry, 1996).

As a result of this strategy there emerged the criteria for the identification of young people in situations of ultra high risk of developing psychosis. These criteria have been refined since they were first presented, and in their latest version are associated with three risk groups obtained by means of the interview for the Comprehensive Assessment of At-Risk Mental States (CAARMS), (Yung, Yuen, McGorry, Phillips, Kelly, Dellóllio, Francey, Cosgrave, Killackey, Stanford, Godfrey & Buckby, 2005):

- *Group 1. Vulnerability.* This risk group includes those young people with a first-order relative with psychotic disorder, or those with a schizotypal personality disorder and who have shown a significant and sustained reduction in their social functioning for at least one month but no more than five years. This loss of functioning is operationalized by means of a loss of 30% with respect to premorbid functioning on the Global Assessment of Functioning (GAF) scale.
- *Group 2. Attenuated psychotic symptoms.* Inclusion in this group requires the presence of at least one of the following symptoms: Thought-content disorders, perceptual anomalies and disorganized communication, with variable severity and frequency of symptoms, depending on the type of symptom, measurement being made through the CAARMS; symptoms must have appeared at least twice in one week and been present for a minimum of one year and a maximum of five.
- *Group 3. Brief, limited and intermittent psychotic symptoms*. Transitory presence of psychotic symptoms (thought-content disorder, perceptual anomalies or disorganized communication). Each episode lasts at least one week, and symptoms remit spontaneously on each occasion. These symptoms have occurred over the previous year and for a maximum of 5 years.

Yung, Phillips, Pan Yuen, Francey, McFarlane, Hallgren and McGorry (2003) carried out a prospective study to examine and validate the predictive power of these ultra high-risk profiles in the development of psychotic disorders.

The results showed that 40.8% of the patients in the high-risk group selected had developed a psychosis within 12 months of their initial assessment, which suggests the possibility of early detection and monitoring of these ultra high-risk individuals.

The research also detected other highly significant predictors of psychosis, such as long duration of prodromal symptoms, poor functioning at entry, low-level psychotic symptoms, depression, and disorganization.

It was also observed that combination with the criteria previously described can enrich and improve the predictive capacity of these indicators of psychosis risk (Yung, Phillips, Pan Yuen & McGorry, 2004).

The next step after detection is the development of treatments capable of delaying or preventing the transition to psychosis. McGorry, Young, Phillips, Francey, Cosgrave, Germano, Bravin, McDonald, Blair, Adlard and Jackson (2002) carried out the first controlled and randomized study for reducing the risk of progression towards psychosis in a sample of 59 patients with high risk, in accordance with the criteria described above.

To this end they compared two interventions, one general, based on needs, and one specific preventive intervention that combined cognitive therapy and low-dose neuroleptic treatment for six months.

The control group received support therapy based on needs. Patients received support psychotherapy focusing on aspects such as social relationships and problems related to the family and leisure time. The therapists also fulfilled a role of case managers, providing help in aspects such as accommodation, education and employment, as well as family upbringing and support; antidepressants and benzodiazepines were used.

The treatment group received all the components of the treatment based on needs, plus a combination of low-dose neuroleptic medication (risperidone at a mean dose of 1.3 mg/day) and cognitive therapy. The cognitive therapy applied, described by Phillips and Francey (2004), had as its aims the understanding of the symptoms experienced, learning of strategies for their control, and reduction of associated stress (Table 2). In order to develop it a series of

modules were designed, to be offered in a flexible manner: management of stress, depression/negative symptoms, positive symptoms and comorbid disorders.

The results, after six months of treatment, showed a rate of transition to psychosis of 36% in control group patients and 10% in the experimental group.

At the six-month follow-up the control group maintained the same results, but the experimental group had increased its transition rate to 29%. As regards the measures of symptomatology and functioning obtained at the end of the treatment and during the follow-up, no differences were found between the two groups, with a general improvement in the two conditions.

It is particularly important to highlight the fact that the authors did not appreciate any problems of stigmatization or anxiety secondary to patients' (and their families') knowledge of their state of risk; nor did they detect any adverse side effects of the neuroleptic medication. The authors conclude that it is possible to at least delay, and in some cases even to prevent, the transition to psychosis in patients with the ultra high-risk characteristics.

PRIME (Prevention through Risk Identification, Management and Education) Research Clinic

This research centre carried out the first controlled multi-centre double-blind clinical study of a neuroleptic drug (olanzapine) *versus* placebo, in patients who sought help and presented symptoms and met the criteria of prodromal syndrome of psychosis (McGlashan, Zipursky, Perkins, Addington, Miller, Woods, Hawkins, Hoffman, Lindborf, Tohen & Breier, 2003; Miller, Zipursky, Perkins, Addington, Woods, Hawkins, Hoffman, Preda, Epstein, Addington, Lindborg, Marquez, Tohen, Breier & McGlashan, 2003).

The risk criteria used by this research group are based on the risk groups described by the PACE clinic, with slight modifications. Thus, three types of prodromal syndrome are specified: brief intermittent psychotic syndrome, attenuated positive symptoms syndrome and genetic risk and global dysfunction syndrome.

For the detection of these syndromes, Miller, McGlashan, Woods, Stein, Driesen, Corcoran, Hoffman and Davidson (1999) developed a semi-structured clinical interview for prodromal syndromes (SIPS), which includes a scale for the assessment of prodromal symptoms (SOPS) for obtaining the risk profiles, and which in turn assesses, through careful interviewing, the presence of the following symptoms in an attenuated fashion (without psychotic intensity):

- Unusual thought content/delirious ideas.
- Persecutory ideas/suspiciousness.
- Delusions of grandeur.
- Anomalous perceptions/hallucinations.
- Disorganized communication.

The predictive validity of the prodromal syndromes of schizophrenia included in the SOPS had been obtained in a prospective study in which Miller, McGlashan, Lifshey, Somiee, Stein and Woods (2002) observed that 46% of those persons who presented these prodromal characteristics of psychosis developed the illness within 6 months of the initial assessment, and 54% within the year.

In their clinical study (McGlashan & cols., 2003), these authors compared the efficacy of olanzapine with that of placebo for preventing or delaying the onset of psychosis. As collateral objectives, they aimed to compare efficacy in the treatment of prodromal symptoms, efficacy in the reduction of clinical and functional severity of the psychoses that emerge during the course of the study and efficacy in relation to neurocognitive functioning, as well as exploring predictors of transition to psychosis and assessing the safety and side effects of olanzapine in comparison to placebo.

The study design included random assignment of 60 patients to a placebo treatment group or an olanzapine treatment group (5-15 mg/day, for 1 year). After 1 year the drug treatment was stopped and patients were

Table 2
Phases of the cognitive therapy in the prepsychotic stage (Phillips & Francey, 2004)

Treatment phases	*Objectives*
Assessment/Engagement (2 sessions approx.)	1. To make a rigorous assessment of the issues the patient brings to the therapy sessions. 2. To arrive at a brief formulation for guiding the therapy (including an assessment of risk and a crisis plan where necessary). 3. To establish a positive working relationship of mutual confidence between therapist and patient.
Therapy (9 sessions approx.)	4. To address the problems and objectives that arose during the assessment process by means of a set of interventions taken from the treatment modules.
Termination (4 sessions plus 3 reinforcement sessions, approx.)	5. To complete the therapy process. 6. Additional reinforcement sessions focused on the observation of symptoms and on recognizing when care might be appropriate in the future.

followed up for a second year. Those who made the transition to psychosis took part in another test involving treatment with olanzapine for psychosis. In both groups there was added a package of individual and family psychosocial treatment lasting 10 weeks, which included psychoeducation and training in problem-solving and basic techniques of stress management.

The results from the first year of treatment indicated a transition to psychosis of 37.9% in the placebo group, compared to 16.1% in the case of the treatment group (Miller, 2004).

The Hillside Recognition and Prevention (RAP) program

This programme is aimed at symptomatic adolescents aged 12 to 18, and seeks to establish valid prodromal indicators for predicting the transition to psychosis (Cornblatt, Lencz & Obuchowski, 2002; Lencz, Smith, Auther, Correll & Cornblatt, 2004).

The process of selection of young people with high clinical risk of psychosis involved the use of two separate lists of prodromal indicators based on the symptoms assessed by the SOPS. Thus, the authors distinguished one group, called *negative clinical risk* (characterized by negative and attenuated disorganized symptoms, considered as early features of the prodromal phase), from another, called *positive clinical risk* (characterized by the presence of attenuated positive symptoms that are assumed to appear in a later prodromal phase). In a natural fashion there emerged a third group, characterized by symptoms with an intensity that was already psychotic, but whose members did not yet fulfil criteria of schizophrenia because they lacked the number and chronicity of the required symptoms, or indeed the requisite level of functional deterioration. This group was called schizophrenia-type psychosis.

In this initial phase of the study the authors detected the presence of four risk factors that were affected equally in all the subgroups, referred to as the CASIS cluster – cognitive deficits, affective disorders, social isolation and school failure –, and which for these authors would demonstrate the presence of an underlying vulnerability that is core feature of schizophrenia (Cornblatt, Lencz, Smith, Correll & cols., 2003; Lencz & cols., 2004).

As regards the treatment used during the study, it included a combination of pharmacological and psychosocial approaches. The pharmacological treatment was that normally prescribed by doctors in their clinical practice for this type of patient, and consisted basically in antidepressants in the negative clinical risk subgroup and atypical neuroleptics (olanzapine and risperidone) in the positive clinical risk and schizophrenia-type psychosis subgroups. In all three subgroups there were low levels of treatment compliance.

As far as the psychosocial treatment was concerned, it included some form of group, family or individual psychotherapy, and in the majority of cases it involved a combination of them, with group therapy focused on social skills being the preferred formula in the negative clinical subgroup. The authors do not provide more details of the psychological procedures employed (Cornblatt, Lencz, Smith & Auther, 2004).

The preliminary results of the study in its first phase indicated considerable clinical improvement in the positive group, with good drug compliance and stabilization in the negative group. It was also observed that of the 54 patients, 17% developed schizophrenia.

Analyzed by subgroups, 7% of the negative clinical risk subgroup made the transition to schizophrenia, 8% of the positive clinical risk subgroup did so, and for the schizophrenia-type psychosis subgroup the figure was 40%.

The authors conclude that early pharmacological intervention is of great utility for the control of prodromal symptoms, and that antipsychotics are not necessarily the best initial treatment; rather, different types of intervention may be necessary for the different clinical risk subgroups detected (Lencz & cols., 2004; Cornblatt & cols., 2004).

Regrettably, there was no type of check on the kind of psychological treatments employed or their possible differential effects.

The Early Detection and Intervention Evaluation (EDIE) Study

Morrison, Bentall, French, Walford, Kilcommons, Knight, Kreutz and Lewis (2002) designed the first randomized test aimed at evaluating the efficacy of a psychological treatment, in this case cognitive therapy, in the prevention of transition to psychosis.

In their study they compared the effect of cognitive therapy with that of monthly monitoring on prevention of the development of psychosis in high-risk individuals seeking help for treating their disorder.

With this purpose they set up a system for the detection of high-risk individuals, using an adaptation of the cut-

off points from the PANSS positive and negative symptoms scale based on the ultra high-risk criteria developed in Melbourne (Yung, Phillips, McGorry, McFarlane, Colleen, Francey, Harrigan, Patton, George & Henry, 1998). These individuals were assigned at random to a group that received cognitive therapy or one that only received monthly monitoring.

The study included 60 patients, of whom 37 received cognitive therapy and 26 received monthly monitoring. Patients were recruited via different types of community resources, including primary care teams, school counselling services, emergency services, voluntary organizations, and so on. In each one of these contexts workshops were organized for personnel with a view to improving recognition and the process of referral to the programme (Morrison, French, Walford, Lewis, Kilcommons, Green, Parker & Bentall, 2004).

The cognitive intervention was limited to a maximum of 26 sessions over six months, and was based on the principles of cognitive therapy developed by Beck, that is, oriented to problems, educational, and restricted in time. Guided discovery and tasks between sessions were used, and the intervention was applied in accordance with a manual developed by French and Morrison (2004).

The core features of this therapy for the prevention of psychosis are based on each individual case according to its characteristics, and the techniques used include normalization of patients' interpretations of their unusual experiences, generation and evaluation of alternative explanations, decatastrophization of fears about imminent madness and testing of their ideas by means of behavioural experiments.

In either group, elements of case management were incorporated, with the aim of resolving crises linked to social problems (financial, work-related, accommodation, etc.) or to mental health risks.

The results after one year indicate that the monitored group presented a transition to psychosis of 22%, whilst for the cognitive therapy group the figure was 6%.

The authors conclude that a six-month cognitive intervention is effective for reducing the severity of subclinical psychotic symptoms, and for reducing the transition to psychosis in a 1-year period in high-risk individuals who seek treatment for these types of mental problem (Morrison & cols., 2004).

Early Recognition and Intervention Centre (FETZ)

This multi-centre project was set up to promote research on the initial prodromal phase of psychosis. Its work involves early detection and recognition of persons with high risk of psychosis, combining two types of strategy.

On the one hand, this project developed an awareness programme for psychiatric services, primary healthcare services, families of patients with schizophrenia, youth support services and the general population, providing information on the early symptoms of schizophrenia and the need to intervene at an early stage.

On the other hand, and based on the Early Recognition Inventory (ERIraos), the project used a two-step approach for identifying high-risk individuals. The first step involved checking people who sought medical attention for mental problems, using the list version of the ERIraos, which rates non-specific prodromal signs and basic symptoms. In a second step, and in the centre itself, a detailed evaluation was carried out using as the core detection instrument the ERIraos symptoms interview.

This test indicates whether an individual at risk of psychosis is in an early or late initial prodromal state (Häfner, Maurer, Ruhrmann, Bechdolf, Kosterkötter, Wagner, Maier, Böttlender, Moller, Gaebel, & Wölwer, 2004; Bechdolf, Ruhrmann, Wagner, Uwe Kühn, Janssen, Böttlender, Wieneke, Schulze-Lutter, Maier & Kosterkötter, J., 2005a):

- *Early initial prodromal state*. This is defined by the presence of one or more perceptual and cognitive deficits, experienced subjectively (basic symptoms) and having appeared several times a week over the previous three months (interference or blocking of thought, language reception disorders, auditory perceptual disorders, etc.), and/or a reduction of at least 30 points on the GAF in the previous year, combined with at least one of the following risk factors: first-order relative with schizophrenia or a disorder on the schizophrenic spectrum, and pre/perinatal complications.
- *Late initial prodromal state.* This state is similar to that of the PACE clinic ultra high-risk groups, and requires the presence of at least one attenuated psychotic symptom several times a week over the previous three months.

For each state, different modes of treatment were designed. Thus, for the early initial prodromal state patients were assigned at random to a programme of cognitive-behavioural therapy or a programme of clinical management for a period of one year.

The cognitive therapy programme is described in Table 3, and has as its objectives the improvement of prodromal symptoms, the prevention of social decline

and stagnation and the prevention or delay of the progression towards psychosis, combining, according to specific patient needs, psychoeducation and stress and symptoms management.

For the treatment of the late initial prodromal state the prescription is a combination of low-dose neuroleptic treatment (amisulpride) with a psychologically advanced programme of clinical management that includes crisis intervention, family counselling, etc., over a period of two years. In a first exploratory study with ten patients in the early initial prodromal state, and employing a non-controlled prospective design with pre- and post-treatment measures, a significant improvement was achieved in prodromal symptoms and in social adjustment, with no transition to psychosis in any of the cases (Bechdolf, Veith, Schwarzer, Schormann, Stamm, Janssen, Berning, Wagner & Klosterkötter, 2005b).

The Torrelavega Early Detection and Intervention in Psychosis Programme

This programme has been under development in the Torrelavega Mental Health Centre (Spain) since 2000, and is the fruit of a collaboration between the Cantabrian Health Service and the Psychology Faculty of the University of Oviedo. The objectives of the programme are:

- To reduce the period of Duration of Untreated Illness (DUI).
- To improve processes of recognition and referral of at-risk young people in the primary healthcare context.
- To evaluate the effects of a comprehensive therapeutic programme on the delay or prevention of the transition to psychosis within a real clinical context.

The treatment format is applied by a multidisciplinary team, and includes the following elements:

- An educational subprogramme for GPs, adapted from that used in the TIPS initiative and aimed at improving ability to recognize prodromal states and promoting rapid referral to the early intervention programme at the mental health centre.
- A protocol based around SIPS, for evaluating prodromal states and states of transition to psychosis, and from which the three traditional risk profiles can be identified and classified.
- A cognitive therapy programme based on the format suggested by French and Morrison (2004).
- A brief family intervention programme.
- A treatment protocol with atypical neuroleptics at low doses, for those patients with attenuated psychotic symptoms who obtain a score of 5 on the positive symptoms scale of the SOPS (Vallina, 2002; Vallina, Alonso, Gutierrez, Ortega, García, Fernández & Lemos, 2003).

Table 3
Psychological intervention in the early initial prodromal state (Bechdolf & cols., 2005a)

Module	*Content*
Individual therapy (30 sessions)	- Evaluation and engagement - Psychoeducation - Stress, symptoms and crisis management
Group therapy (15 sessions)	- Positive mood and training - Social skills - Problem-solving
Cognitive rehabilitation (12 sessions)	- Concentration, attention, vigilance, memory
Information and counselling for families (3 sessions)	- Multi-family psychoeducational group

Preliminary results from a pilot study had shown that a primary care centre whose personnel had been trained in early detection displayed better levels of recognition and referral of at-risk patients than other centres in the area where no such training had taken place (Vallina & cols., 2003).

Subsequently, a 30-patient single-group prospective study with repeated measures yielded a rate of transition to psychosis of 26.7%.

The study also found a rapid and statistically significant psychopathological improvement in all the SOPS scales for those patients that did not progress to psychosis, as well as functional recovery assessed through the GAF (Vallina, Ortega, Gutiérrez, Garcia, García, Fernández & Lemos, 2004; Lemos, Vallina, Fernández, Ortega, García, Gutiérrez, García, Bobes & Miller, 2005).

The results are in line with those obtained in other international initiatives, and validate the possibility of early detection of those at risk of developing psychosis, the utility of their treatment and the possibility of developing this type of initiative within normal healthcare contexts.

Having briefly reviewed the current state of research in relation to the detection and treatment of patients with high risk of developing psychosis – and although we are still at an absolutely preliminary level of knowledge –, we agree with McGorry, Yung and Phillips (2003) that some valid points can be made on the basis of the work carried out up to now:

a) It is possible to provide access to clinical care for a subset of young people with a substantially high risk of developing a first psychotic episode, and to involve them in that care context.

b) Valid and reliable operative criteria can be developed for defining states of ultra high-risk of early transition to psychosis.
c) Up to now, clinical criteria appear to be the best immediate predictors of transition.
d) It is possible to have an open discussion about problems and the risks of future disorder (schizophrenia and psychosis), both with patients and with their families, though clinicians should be careful not to display an attitude of pessimism or therapeutic nihilism.
e) The negative consequences associated with labelling and stigma can be minimized, creating a friendly and informal atmosphere combined with an optimistic and realistic attitude to the treatment of psychotic disorders.
f) This clinical phase is dynamic, and the progression towards psychosis does not appear to be predetermined. It also appears at least possible to delay the progression of the illness in a percentage of cases.
g) The terms ultra high-risk or high-risk mental states better reflect the clinical focus of this work than the term prodrome. The term selected should make it clear that we are dealing with a clinical state indicative of risk.
h) There are a wide range of psychosocial and biological interventions that are probably effective
i) The base rate of transition has been relatively reproducible across a range of different centres, but there are still fluctuations. This may reflect differences in sources of referral and in the setting of thresholds, as well as in the interpretation of criteria by individual evaluators or by the different centres.

INTERVENTIONS FOCUSED ON THE ACUTE PHASE OF THE FIRST PSYCHOTIC EPISODE

It is in this period that there occurs the greatest destructuring of the individual's cognitive processes, behaviour and social functioning.

The objectives of treatment during this period of exacerbation are focused on preventing patients from harming others or themselves, on controlling their altered behaviours, on reducing the severity of the psychotic symptoms (agitation, aggression, anxiety, fear, dysphoria, depression, etc.) and on attempts to return rapidly to the level of functioning prior to the appearance of the illness. It is, moreover, a highly pertinent moment for studying the elements that may have influenced the triggering of the crisis and for establishing the working alliance with the patient's family (American Psychiatric Association, 2004).

Treatment in this phase is recommended to be carried out, as far as possible, in outpatient contexts or the patient's own home (*International Early Psychosis Association Writing Group*, IEPA, 2005; Bertolote & McGorry, 2005). The special characteristics of this phase of the illness – agitation, lack of *insight*, cognitive disorganization, etc. – make it particularly difficult to undertake psychological interventions. If in addition to this we consider the usual treatment by mental health services, in inpatient psychiatric unit contexts, exclusively pharmacological and at best accompanied by non-specific support, and the still low level of development of psychotherapy for dealing with psychosis, it is not difficult to understand the current scarcity – indeed, the practical non-existence – of psychological interventions for psychosis.

Drury, Birchwood, Cochrane and McMillan (1996a) maintain that there are three basic reasons for complementing pharmacological treatments with psychological ones during the acute period of psychosis. The first is that, as prospective studies of schizophrenia show us, the common residual symptoms in schizophrenia are a residue of acute psychotic episodes, so that those delusions that remain in a patient after the acute phase will persist or recur over the following two to eight years (Harrow, MacDonald & Sands, 1995). Secondly, according to these authors, reducing the duration of the acute psychosis is beneficial in itself, since it has been confirmed that long periods of untreated illness weaken the effect of drug treatments, extending response time and prolonging the maintenance of delusional symptoms (Gunduz-Bruce, McMeniman, Robinson, Woerner, Kane, Schooler & Lieberman, 2005). And finally, the experience of acute psychosis and its treatments is in itself stressful, commonly generating post-psychotic depression and post-traumatic stress and increasing the risk of suicide. For all of these reasons it is advisable to complement pharmacological treatments with psychological interventions (Birchwood, 2000).

Drury, Birchwood, Cochrane and McMillan (1996a) performed their first controlled trial with forty patients in the acute phase of psychosis. In this trial they aimed to observe the effects of a form of cognitive therapy on the rapidity of elimination of positive symptoms and on their subsequent level of residuality.

To this end, they compared the group that received cognitive therapy with a control group that received

informal support and structured occupational activities (listening to music, social discussion groups, etc.). Both interventions were in addition to the usual pharmacological and hospital treatment. The cognitive therapy applied consisted in a combination of four individual and group procedures sequenced according to the course of personal recovery:

a) Individual cognitive therapy in a context of support that included challenging core beliefs and reality tests. Daily sessions, three hours per week.
b) Group cognitive therapy aimed at the observation of inconsistencies and irrationalities in group members' beliefs and the consideration of alternative explanations. Daily sessions, three hours per week.
c) Family sessions of specific guidance on useful forms of interacting with patients and supporting them in the management of their symptoms, especially their delusions; five hours per week.
d) A structured programme of activities aimed at improving interpersonal and care skills; five hours per week.

The results showed that the cognitive therapy group presented more rapid elimination of positive symptoms, a lower level of positive symptomatology and fewer delusional beliefs after the first 12 weeks than the control group, and that these results were maintained at the 9-month follow-up.

No intergroup differences were appreciated in symptoms of disorganization or in negative symptoms. The authors also found (Drury, Birchwood, Cochrane and McMillan, 1996b) that this form of therapy succeeded in reducing recovery time in the acute phase by between 25 and 50% and improving symptomatological recovery, with improved insight and reduced levels of dysphoria and psychotic thinking.

At the 5-year follow-up, however, the differences between the two groups in relapse rates, positive symptoms and *insight* had disappeared, with the therapy group maintaining better perceived control over the illness and a lower rate of delusional beliefs for those who had not had more than one relapse in this period (Drury, Birchwood & Cochrane, 2000).

Haddock, Tarrier, Morrison, Hopkins, Drake and Lewis (1999) carried out a pilot study for evaluating the effectiveness of a brief form of individual cognitive therapy in 21 inpatients in the acute phase, comparing it with another psychotherapeutic format that combined psychoeducation and support. Both forms of therapy were added to normal hospital pharmacological treatment and general care.

The cognitive treatment was designed to be applied during the stay in hospital, and scheduled for 5 weeks or until the patient was fit for discharge. It was focused on the treatment of delusions and hallucinations and on the problems and symptoms habitually associated with them (anxiety, depression, self-esteem). In cases of rapid remission of symptoms the therapy concentrated on prevention of relapses, associated problems and medication compliance.

The therapy consisted of four elements: assessment and engagement, formulation identification of key problems, intervention aimed at reducing severity or occurrence of the key problems, and prevention of relapses/maintenance of improvement.

The results showed, at the end of the treatment, a similar and significant reduction in symptoms in the two groups according to the *Brief Psychiatric Rating Scale* (BPRS); no significant differences were observed in time spent in hospital until fit for discharge, though the support group stayed, on average, slightly longer. At the two-year follow-up there continued to be no significant differences between the groups, though in the cognitive therapy group there were fewer relapses and fewer patients who relapsed.

Lewis, Tarrier, Haddock, Bentall, Kinderman, Kingdon, Siddle, Drake, Everitt, Leadley, Benn, Grazebrook, Haley, Akhtar, Davies, Palmer, Faragher and Dunn (2002) carried out the most wide-ranging and methodologically rigorous study so far in patients in the acute phase and mostly in their first psychotic episode, distinguishing it from the other studies, which cover the early stages of the illness (first 5 years), rather than being restricted to the first episodes.

The SoCRATES study is a randomized multi-centre trial that assessed the efficacy of cognitive therapy added to routine care in a hospital unit for acute cases for improving more quickly the symptomatology of a first psychotic episode and observed whether this supposed improvement could be maintained over time.

Patients, 315 in total, were randomly assigned to three groups, one that received only routine care (basically medication), another that received a form of counselling therapy plus routine care, and a third that received individual cognitive therapy plus routine care. The cognitive therapy scheduled around 15-20 hours (a mean of 8 were applied), distributed over a period of 5 weeks, followed by recall sessions.

The therapy format is described in Table 4. The results showed a more rapid reduction in total and positive symptoms (assessed with the PANSS) in the cognitive

therapy group towards the third or fourth week of treatment, but this effect would be lost by the sixth week in comparison with the routine care group. It was also observed that auditory hallucinations improved more quickly in the cognitive therapy group than in the support group.

No differences were observed between groups in number of days spent in hospital. At the 18-month follow-up (Tarrier, Lewis, Haddock, Bentall, Drake, Kinderman, Kingdon, Siddle, Everitt, Leadley, Benn, Grazebrook, Haley, Akhtar, Davies, Palmer, Faragher & Dunn, 2004) the cognitive therapy group presented lower symptomatology for total scale and positive symptoms on the PANSS than the other two groups, but no intergroup differences were observed in indices of relapse or rehospitalization.

Startup, Jackson and Bendix (2004) carried out a controlled randomized study with the aim of observing the effects of cognitive-behavioural therapy in the acute phase of schizophrenia when applied in natural clinical contexts.

The sample was made up of 90 patients assigned to one of two groups: cognitive therapy plus routine healthcare or routine healthcare only (control group).

The routine care included pharmacological treatment, nursing while in hospital and, after discharge, community care that could include treatment at home, treatment in day centres, support for carers, social clubs, and so on.

The cognitive therapy followed the model proposed by Fowler, Garety and Kuipers, (1995) for the treatment of schizophrenia, with a highly individualized perspective and based on needs, on collaborative empiricism and on the cognitive-behavioural formulations of the case.

A treatment course of 25 weekly sessions was scheduled, carried out at both the hospital and the mental health centre. At the 12-month follow-up the cognitive therapy group presented lower symptomatology measured on the *Positive Symptoms Scale* (SAPS), on the *Negative Symptoms Scale* (SANS) and on the *Brief Psychiatric Rating Scale* (BPRS-E), as well as better social functioning assessed by the *Social Functioning Scale* (SFS), with the observation that this change affected 60% of the patients.

At the two-year follow-up the therapy group maintained its advantage over the control group in negative symptoms and social functioning, though the advantage in positive symptomatology disappeared.

It was also observed that, compared with the routine care group, the therapy group presented fewer rehospitalizations and had spent fewer days in hospital during this two-year period, even though the difference was not statistically significant. Moreover, it was confirmed that cognitive therapy did not involve additional cost to health services (Startup, Jackson, Evans & Bendix, 2005).

INTERVENTIONS FOCUSED ON THE RECOVERY OR POST-PSYCHOTIC PHASE

The post-psychotic phase is the stage of symptomatological remission and stabilization and of the beginning of clinical and personal recovery. It covers a period roughly between 3 and 18 months after stabilization of the psychotic crisis, and is divided into two stages. Early recovery, from the third to the ninth month, and prolonged recovery, from the ninth to the eighteenth month (Edwards & McGorry, 2004; IEPA, 2005). However, the initial course of the psychosis is unstable and prone to relapse, with 80% of patients relapsing in the first 5 years of the illness. Also common are exacerbation of symptoms, drug use, maladaptive responses of avoidance or denial of the illness and maintenance of residual positive symptoms (20% of patients); in addition, there is a particularly high risk of suicide at this time (Edwards & McGorry, 2004). This situation means that intensive, continuous, active and quality biopsychosocial care is essential during this critical period that will determine the course of the following 15 years with regard to adequate personal recovery (IEPA, 2005). However, sufficiently validated psychological treatments for this first period of the illness are still unavailable. Therapeutic formats

Table 4
Cognitive-behavioural therapy for acute psychosis (Lewis & cols., 2002)

Stages	*Content*
Engagement and evaluation	- Detailed evaluation of mental state and dimensional evaluation of symptoms. - Cognitive-behavioural formulation of the case. - Education on the nature and treatment of psychosis.
Generating a list of problems	- Drawing up a list of problems in order of priority, viability and clinical risk.
Intervention and monitoring	- Intervention in delusions and hallucinations. - Identifying triggering and protective factors. - Generating alternative hypotheses. - Reducing associated distress.

designed for these initial phases are scarce, and the majority are still at the experimental stage. We continue by presenting some therapeutic options aimed at remedying these shortcomings and covering the diverse and specific needs of this crucial period.

Cognitively-oriented psychotherapy for early psychosis (COPE)

The experience of psychosis, the treatment process and the response of the post-psychotic context are potentially traumatic experiences that block subsequent psychosocial development in those who undergo them. The aim of cognitively-oriented psychotherapy for early psychosis is to help the patient in the initial recovery from the first psychotic episode, and to avoid or alleviate the secondary morbidity frequently associated with it (Jackson, Edwards, Hulbert & McGorry, 1999; Jackson, Hulbert, Henry, 2000; Henry, Edwards, Jackson, Hulbert & McGorry, 2002).

This therapy attempts to preserve a sense of self (identity), to promote a feeling of mastery over the experience of psychosis and to preserve or increase self-efficacy in the face of the onset of illness. The therapy has an individual format, begins at the end of the acute phase of the psychotic episode and consists of between 20 and 30 sessions.

It uses a combination of psychoeducation and cognitive techniques, and includes four components: assessment, engagement, adaptation and secondary morbidity (see Table 5). These components, in turn, are developed over four phases: evaluation phase, which includes the evaluation itself and the establishment of the therapeutic alliance; initial phase, focused on collaboration and on primary morbidity and adaptation; intermediate phase, directed towards adaptation and secondary morbidity; and completion phase, aimed at the consolidation of the new adaptive styles of understanding psychosis and of the new coping strategies (Henry & cols., 2002; Henry, 2004).

Table 5
Cognitively-oriented psychotherapy for early psychosis (Henry & cols., 2002)

Components	*Tasks*
Assessment	- Assessment of symptoms, knowledge of the illness, explanatory model, coping, adaptation and identity, secondary morbidity, trauma and loss, personality. - Setting of an agenda.
Engagement	- Development of a therapeutic relationship based on collaboration.
Adaptation	- Establishing hope. - Psychoeducation. - Cognitive work with identity, biases and beliefs. - Behavioural practice. Graded tasks. - Review of progress.
Secondary morbidity	- Standard cognitive therapy.

Jackson, McGorry, Edwards, Hulbert, Henry, Francey, Maude, Cocks, Power, Harrigan and Dudgeon (1998) carried out a pilot study using a non-randomized control group design and assessed the results after a one-year follow-up (Jackson, McGorry, Henry, Edwards, Hulbert, Harrigan, Dudgeon, Francey, Maude, Cocks & Power, 2001).

In this study, 51 patients with a first episode of psychosis were assigned to one of three groups. The first group was made up of patients attending the EPPIC centre and who agreed to receive cognitive treatment (COPE). The second group was made up of patients who also attended the centre but who rejected the treatment. The third group consisted of patients who were receiving inpatient treatment at the clinic, but who received neither outpatient treatment nor this mode of cognitive therapy.

All patients were assessed in a wide range of measures: positive and negative symptoms (BPRS and SANS), secondary morbidity: depression (BDI) and general symptomatology, and social functioning (SOFAS); moreover, two specific psychological measures were applied: the measure of integration/denial and the measure of the explanatory model.

The results obtained indicate that COPE tended to improve cognitive indicators of adjustment and adaptation, but not secondary morbidity. The authors believe that this therapy is most effective for changing negative ideas about psychosis, for improving coping skills and for preventing pigeonholing of the self in psychosis. This would be achieved through mobilization of the person and their re-engagement in everyday activities and in the pursuit of their life goals.

On the other hand, the therapy emerged as less effective for changing negative attributional styles, core beliefs and schemas and negative personality characteristics (Jackson & cols., 2001).

In a subsequent controlled trial, with a four-year follow-up, this team compared a group of 45 patients receiving routine treatment habitual at the EPPIC plus COPE with another 46 patients receiving only routine care at the EPPIC (Jackson, McGorry, Edwards, Hulbert, Henry, Harrigan, Dudgeon, Francey, Maude, Cocks, Killackey & Power, 2005).

After a four-year follow-up, no differences between groups were appreciated. The authors conclude that the results could be explained by duration of the therapy, 15 sessions on average, with only 4 devoted to adaptation and none to secondary morbidity, together with the already highly efficient integrated services provided at the EPPIC, the habitual loss of effect of treatments over time, and some methodological defects of the study. At the present time this therapy is undergoing a second phase of review and development (Henry, 2004).

Systematic Treatment of Persistent Psychosis (STOPP)

The pharmacological treatment of psychosis, even in those cases in which it is applied and pursued in optimum fashion, is subject to a series of limitations, and not only because of its habitually low compliance rates, but also due to a significant group of patients who show very low or zero response to it (Gleeson, Larsen & McGorry, 2003).

Around 20% of those who undergo first psychotic episodes continue to experience positive symptoms three months after the start of treatment (Addington & Addington, 2001; Edwards, Maude, Herrmann-Doig, Wong, Cocks, Burnett, Bennett, Wade & McGorry, 2002). These data lead to the conclusion that an inadequate response to pharmacological treatment within the initial course of the illness can be determined relatively quickly, and this suggests the need to generate more intensive interventions so as to accelerate recovery during this period (Edwards, Maude, Herrmann-Doig, Gee, 2004).

The systematic treatment of persistent psychosis is a form of therapy aimed at those people in the stage of prolonged recovery from a first episode of psychosis. The content of this therapy includes identifying thoughts and beliefs, reviewing the evidence on which those beliefs are founded, promoting self-monitoring of cognitions, relating thoughts to affect and behaviour, and identifying bias in thinking (Jackson & cols., 1999).

The principal objectives of the interventions are the reduction of the frequency and intensity of positive symptoms, of the distress and interference with normal functioning produced by residual psychotic symptomatology, and of emotional disorder, and the promotion of the individual's comprehension of psychosis that permits his or her active participation in the regulation of risk of relapse and social maladjustment (Edwards & cols., 2004). Despite its recent introduction it has already undergone modifications, and in its current format it is an individual therapy intended to be specific for this stage of the illness, flexible, sequenced and adapted to individual needs. It is applied weekly for a maximum of 24 sessions and over a six-month period, in four phases (Herrmann-Doig, Maude & Edwards, 2003). Table 6 shows details of the characteristics of this therapy.

Currently, the results are about to be published of a controlled and randomized study (*recovery plus study*) with patients in their first psychotic episode who have not achieved a predetermined level of remission after three months of treatment, and which aims to establish the effectiveness of the early introduction of clozapine and STOPP therapy.

Patients are assigned at random to one of four groups: standard antipsychotic therapy plus case management, standard antipsychotic therapy plus case management and STOPP, clozapine plus case management, and clozapine plus case management and STOPP (Herrmann-Doig, Maude, & Edwards, 2003; Edwards & cols., 2004). Assessment is carried out fortnightly, with follow-up at 3 and 18 months.

Interventions with families

The early stage of psychosis is a time of distress and confusion for families. If this crucial resource for the recovery of the young person with psychosis falters, the initial recovery may also falter. In order to apply effective early intervention programmes it is necessary

Table 6
Systematic treatment of persistent psychosis (STOPP, Herrmann-Doig & cols., 2003)

Phases	*Areas covered*
Development of a collaborative working relationship	- Evaluation of the psychotic experience. - Drawing up a psychological formulation. - Drawing up a work agenda.
Exploration of and coping with psychosis	- Subjective response to symptoms. - Psychoeducation about psychosis. - Strategies for managing symptoms and emotional states. - Maintaining life goals.
Strengthening of capacity for relating to others	- Exploration of oneself: identity and core beliefs about oneself and others. - Attention to psychotic beliefs about others. - Relationship between symptomatology and personal difficulties.
Completion and progress made	- Planning for the future. Setting goals. - Dealing with loss and disappointment. - Prevention of relapses. - Transition to other care services.

to develop broad initiatives involving working with families and providing them with the practical, emotional, financial, social, educational and informational support they need following the onset of the illness (Bertolote & McGorry, 2005). Such programmes should have as their objectives:

1. To maximize adaptive functioning of the family.
2. To minimize disruption of family life caused by the psychotic episode.
3. To minimize the risk of developing suffering, stress and burden in the long term.
4. To help the family understand the impact of the psychosis on each and every one of its members, as well as its influence on the course of the disorder.
5. To promote a feeling of control over the experience (Addington, Collins, McCleery & Addington, 2005a).

At the same time, they should take into account that the needs of families at the initial stage are different from those when they have been living with the illness for several years, since at this point they lack any type of experience with the disorder; moreover, the initial diagnosis tends to be ambiguous, and initial recovery from a first episode is good in a large percentage of patients, which renders unadvisable interventions intended for chronic care situations (Addington & Burnett, 2004).

Family interventions with chronic patients are among the most widely studied, validated and recommended in any clinical guide, but as regards first-episode psychosis they have been scarcely studied, among other reasons because they are always incorporated in integrated care services, and involve a transference to first-episode psychosis of the formats used successfully in chronic patients (Haddock & Lewis, 2005; Penn, Waldheter, Perkins, Mueser & Lieberman, 2005; Marshall & Lockwood, 2005). This lack of adaptation and innovation may be restricting the benefits of these therapies in these initial stages.

Linszen, Dingemans and Van der Does (1996) studied the efficacy of a behavioural family intervention on the Falloon model combined with standard individual therapy (focused on psychoeducation and prevention of relapses) compared to the application of standard therapy alone, with regard to levels of emotion expressed and relapse rate.

In a first phase of treatment, families received psychoeducational intervention while the patient was in hospital; this was followed by outpatient treatment for 1 year involving a combination of individual therapy with family intervention.

The combined family therapy format was not found to be superior to the standard individual therapy, both groups presenting low relapse rates; curiously, the families with low expressed emotion (EE) treated with family intervention slightly increased their level of stress and relapse rate, with respect to those who received only individual intervention.

At the 5-year follow-up no intergroup differences were appreciated in relapses, in levels of expressed emotion or in social functioning, but the family therapy group had spent significantly less time in hospitals (Lenior, Dingemans, Linszen, De Haan & Schene, 2001).

Leavey, Gulamhussein, Papadopoulos, Johnson-Sabine, Blizard and King (2004) carried out a randomized controlled study with 106 family members to compare the effect on their perceived satisfaction with health services of a brief in-home psychoeducational intervention that included information on psychosis and coping and problem-solving strategies plus routine care, with that of another intervention which included only the application of routine care after a first psychotic episode.

At the 9-month follow-up no intergroup differences were found in perceived satisfaction with services or in number of days readmitted to hospital. These authors conclude that after a first brief episode and with good symptomatic recovery, the family may perceive less need for support from services, and even rate contact with them as a traumatic and unnecessary reminder of the illness, developing evasive coping styles in relation to care services.

Addington, McCleery and Addington (2005b) assessed the effectiveness and acceptance of their family intervention programme (perhaps the most innovative and well-adapted to early psychosis of all current programmes), included in their integrated service for first episodes, through a longitudinal study of a cohort of 185 family members. The programme consists of 4 phases developed over the course of the first three years of illness (Addington & cols., 2005a):

1. *Crisis management*. Addressing issues of engagement and working relationship with the family, management of the symptoms and emotions produced during the acute episode, provision of a first explanatory model of the illness and identification of high-risk families.
2. *Initial stabilization and support for recovery*. Aimed at assessing family functioning, at developing the working alliance, and at increasing knowledge about psychosis and about the recovery process.

3. *Consolidating the improvement*. Aimed at involving the patient in the recovery, at managing the risk of relapse, at adjusting expectations and at maintaining personal well-being.
4. *Prolonged recovery*. Aimed at changing expectations in cases of incomplete or only slight recovery, at helping adaptation to loss and at preparing the transition to other community services.

After the three years' application of the programme, significant reductions in families' level of psychological distress were observed. Moreover, the most powerful predictor of poor psychological well-being in family members was found to be not severity of symptoms or deterioration of functioning in the relative with the disorder, but rather the family's assessment of the impact of the illness on its members themselves.

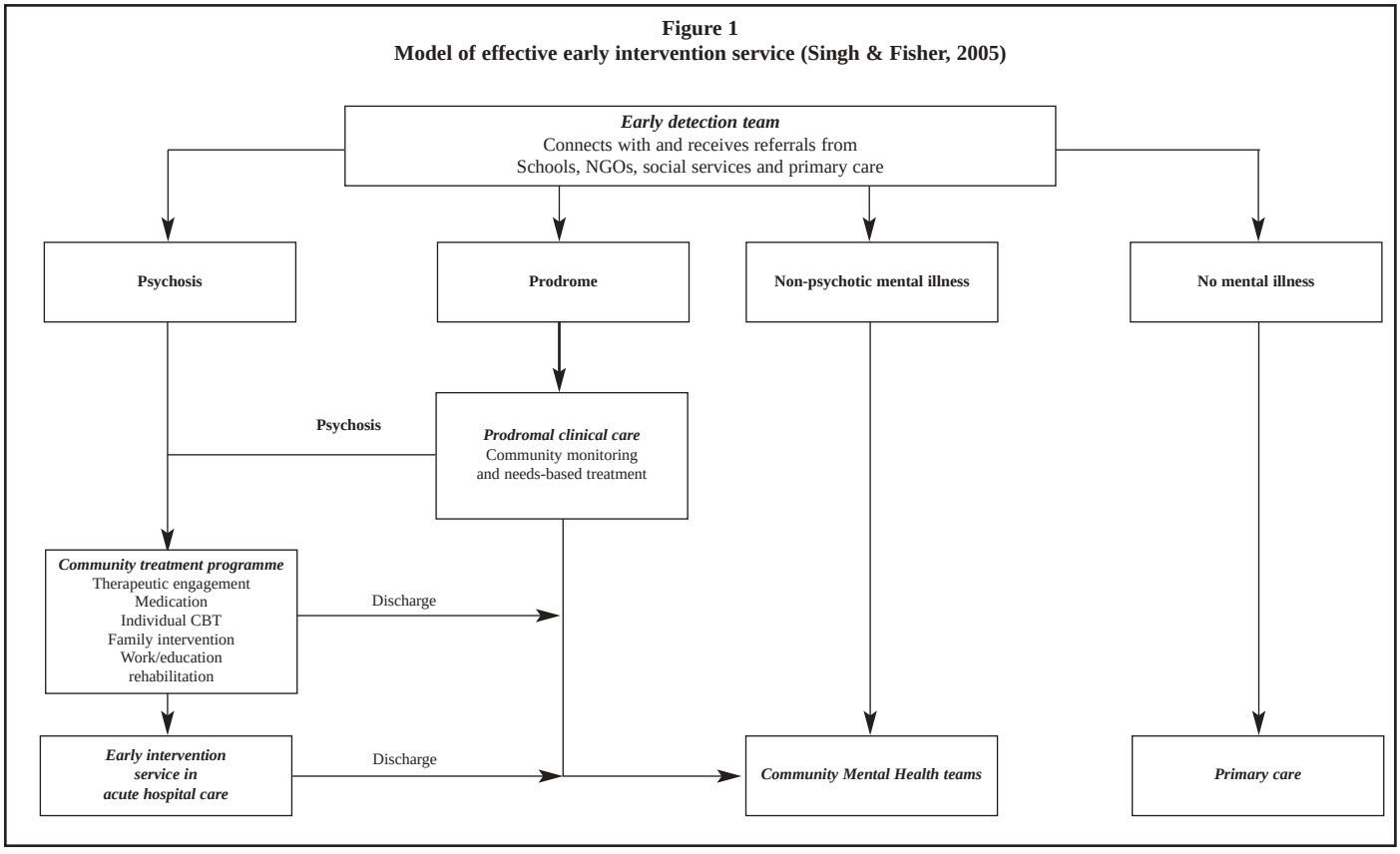
INTERVENTIONS BASED ON INTEGRATED SERVICES

Programmes of early intervention in psychosis usually involve interdisciplinary teams providing a wide range of integrated services including public education, swift and thorough assessments, clinical management of cases and group interventions. Specific interventions generally include pharmacotherapy, psychoeducation, stress management, prevention of relapses, problem-solving, support counselling and social and work rehabilitation. They also commonly provide family therapy and cognitive therapy services. Figure 1 shows a model of effective early intervention service (Singh & Fisher, 2005). We shall continue with a brief description of a selection of those programmes that appear most relevant and representative for illustrating the way these services are developed (for a fuller and more detailed description of the principal services currently available, see Edwards, McGorry & Pennell, 2000). The recency of their introduction means that there are as yet few experimental studies on their effects and results, though this shortcoming is sure to be remedied in the next few years.

Early Psychosis Prevention and Intervention Centre (EPPIC)

The doyen of early intervention centres, it has served as a basic model for multiple international initiatives, and is an authentic driving force for research and development in this field worldwide. It provides a multicomponent service developed for meeting the

Figure 1
Model of effective early intervention service (Singh & Fisher, 2005)



needs of patients in the first phases of a psychotic episode. Its catchment area has a population of roughly 1,025,000 inhabitants with a mean age of 22 years. The objectives of the service are:

- To reduce the level of primary and secondary morbidity in the first psychotic episodes through a dual strategy.
- To identify patients as soon as possible after the onset of psychosis.
- To provide intensive treatment of up to 18 months' duration in stages (Edwards & cols., 2000).

This service has evolved since its origins, and at the present time provides an extensive series of integrated components (Edwards & McGorry, 2004). These include:

1. A mobile early detection team (Youth Assessment Team). This is a first point of contact with the EPPIC. It provides immediate assessment of the first signs of the illness and crisis intervention and brief community treatment where required.
2. Prevention, promotion and primary care activities.
3. An inpatient unit with 16 beds.
4. A clinic for the prodromal phase (PACE) for the identification and treatment of young people at risk of developing psychosis.
5. Work with families. Includes multi-family groups and individual family work, as well as the participation of now-discharged families that help and support other families.
6. Group treatment programme. Contextualized and adapted to individual needs, it includes acute, recovering and focus patients, and is organized around four group modules: vocational programmes, creative expression programmes, recreational-social programmes and promotion of health and personal development.
7. A clinic for prolonged recovery (TREAT/STOPP). Its aim is to accelerate recovery and prevent treatment resistance taking hold, through early identification of those experiencing a process of prolonged recovery.
8. A programme of nationwide services. Its objective is to help other centres throughout Australia to incorporate an early attention approach into their clinical services, by means of personnel education and training, creation of support materials and development of local models of practice. Moreover, the clinic is responsible for the national early psychosis project of the Australian government (NEPP).

This model of work was assessed through a naturalistic study of efficacy, comparing the results of 51 of its patients with those obtained by a historical cohort of 51 others, treated with the previous, traditional care model.

The results indicated that the EPPIC group had better quality of life and lower levels of post-traumatic stress, spent less time in hospital and were on lower doses of medication, and that the duration of the untreated psychosis period had been reduced (McGorry, Edwards, Mihalopoulos, Harrigan & Jackson, 1996).

The Birmingham Early Intervention Service (EIS)

This is a service designed specifically for young people in the early phase of psychosis. It has played a fundamental role in the recent development of early intervention services in the United Kingdom and serves as a worldwide reference in the field.

The EIS is made up of emergency psychiatric and in-home treatment teams with duty personnel 24 hours a day, outreach and primary care services, active monitoring teams and recovery and rehabilitation services. It uses protocolized biopsychosocial treatments that include: pharmacological treatment at low doses, cognitive therapy for delusions and hallucinations, cognitive therapy aimed at improving adaptation and reducing comorbidity, psychosocial interventions for substance misuse problems and pre-employment training.

Currently, the service is structured around four integrated components (Birchwood, 2005):

1. *Early Detection and Intervention Team* (ED:IT). This was created in 2002 for the detection and treatment of young people in situations of high risk of developing psychosis. It is integrated into the European Prediction of Psychosis Study.
2. *Community action and outreach teams*. Community teams organized around the figure of the case manager that constitute the core of the early intervention service and that are responsible for the integrated care in first psychotic episodes.
3. *Vocational programmes*. These evaluate patients' training and employment needs and encourage practical activities and job-seeking. They provide a pre-vocational programme for those still not ready to work, which includes structured activities such as everyday life skills, arts and crafts or information technology.
4. *Support houses*. Houses within the community with 4-6 beds, and in which patients live independently. These allow care in situations of relapse risk,

treatment change or compliance problems and in cases of family crises, when carers need a respite and after hospitalization for reducing time spent in acute care units.

This service has played a crucial role in the development of the UK National Health Service's plan for radical reform of the mental health system, which involves, among other measures, the creation of 50 specialist early intervention services for the treatment and active support in the community of these patients and their families. Each of these services is designed to attend to around 150 new cases per year over a three-year period for each patient (Joseph & Birchwood, 2005).

The Early Treatment and Identification in Psychosis Project (TIPS)

The TIPS project is a longitudinal multi-centre prospective study, designed for observing whether early identification and adequate treatment of the first episode of psychosis lead to better long-term outcome.

To this end, the authors, working in Rogaland (Norway), compared first-episode patients – the experimental group to whom the early intervention programme would be applied – with a historical control group and two other control groups, who would continue with the conventional treatment format applied in the mental health services (Johannessen, Larsen, McGlashan & Vaglum, 2000; Larsen, Johannessen, McGlashan, Horneland, Mardal & Vaglum, 2000).

The basis objective is to reduce the duration of untreated psychosis (DUP) and observe the effects of this reduction on subsequent course and prognosis through a specific early detection system. The programme consists of two elements:

1. *Educational programme*. With three different targets: the general population, schools and health professionals. For the general population there was a publicity campaign on radio and TV, in cinemas and in the press, to help people identify early signs of psychosis and seek immediate help. The information campaign in schools involved mandatory courses for teaching staff, educational programmes for pupils and teachers and audiovisual material about psychosis. For health professionals an educational programme was designed that included lectures and presentations about the project, a manual for assessment of psychotic symptoms, videos with illustrative cases and discussion of clinical cases.
2. *Early detection teams*. These are multidisciplinary, and work in collaboration with mental health units, being considered as just one more element of the conventional mental health services. Their work involves facilitating access to services, carrying out the diagnostic assessment and applying the treatment protocol for a period of at least two years. This protocol includes:
   a) Flexible and dynamic weekly support psychotherapy and active monitoring.
   b) A standard low-dose medication protocol of atypical neuroleptics (olanzapine or risperidone).
   c) Work with families focusing on problem-solving and psychoeducation through multi-family groups, family workshops and individual family sessions.

In a study comparing 66 patients from the early detection group with 43 from the traditional detection group, Larsen, McGlashan, Johannessen, Friis, Guldberg, Haahr, Horneland, Melle, Moe, Opjordsmoen, Simonsen and Vaglum (2001) observed a greater reduction in DUP in the former group (median of 4 weeks compared to 26 in the traditional group), as well as fewer positive and negative psychotic symptoms.

In a later study, Friis, Vaglum, Haahr, Johannessen, Larsen, Melle, Opjorsmoen, Rund, Simonsen and McGlashan, 2005) found that the early detection group also included fewer patients with long DUP (over two years) than the traditional group, and they use this finding as proof of the validity of large-scale information and training campaigns for facilitating early detection.

Early identification and treatment of young patients with psychosis (OPUS)

This is a prospective study carried out in Denmark with a dual objective: to check whether education and intensive collaboration with primary healthcare and with other social services reduce the time delay before the start of psychosis treatment, and whether an assertive community treatment format, adapted to first-episode psychosis, can modify the course and outcome of the illness.

This is the first controlled randomized trial that compares the effect of an early treatment format with that of one based on standard care (Jorgensen, Nordentoft, Abel, Gouliaev, Jeppesen & Kassow, 2000).

The standard treatment is that habitually applied in the Danish mental health service for first-episode psychosis. The integrated treatment programme was applied over a

period of two years, and included the following elements:

1. *An early detection programme*. This is an educational programme similar to that described in the TIPS programme, and aimed at doctors, teachers, social services, youth associations, and so on, and at promoting rapid referral to the early intervention service.
2. *A modified assertive community treatment programme*. This includes assignment to a case manager for 10 patients, use of neuroleptic medication at low doses, psychoeducational family treatment and training in social skills. Multi-family psychoeducational treatment includes single-family sessions without the patient, psychoeducational groups without the patient and multi-family groups with patients. Training in social skills is adjusted to their needs, and includes group training of modules related to medication, self-management, symptoms coping, communication skills and problem-solving, and individual training in everyday life skills.

In the randomized study 275 patients were assigned to the integrated treatment group and 272 to the standard treatment group.

Results after the first year indicate a statistically significant improvement in the integrated treatment group in psychotic symptomatology, assessed with the SAPS, lower comorbidity in drug use, better level of social functioning assessed with the GAF, better levels of residence (with fewer beggars or patients in protected residences) and better employment outcome (Petersen, Nordentoft, Jeppesen, Ohlenschlaeger, Thorup, Christensen, Krarup, Dahlstrom, Haastrup & Jorgensen, 2005). In another study (Jeppesen, Petersen, Thorup, Abel, Oehlenschlaeger, Christensen, Krarup, Hemmingsen, Jorgensen & Nordentoft, 2005) the authors also observed a lower level of subjective family burden, assessed with the illness burden subscale of the *Social Behaviour Assessment Schedule* (SBAS), and a higher level of satisfaction with the treatment, assessed with an adapted version of Attkison and Zwick's (1982) *Satisfaction Questionnaire*, in the integrated treatment group families. No differences were appreciated between the two groups in levels of expressed emotion and in knowledge about the illness. Thorup, Petersen, Jeppesen, Ohlenschlaeger, Christensen, Krarup, Jorgensen and Nordentoft (2005), moreover, highlight the finding of a lower burden of negative symptomatology in the SANS and better drug treatment compliance.

The Calgary Early Psychosis Program (EPP)

This programme emerged with the aim of identifying psychosis early, reducing delay before the start of treatment, reducing psychotic symptoms and secondary morbidity, reducing the frequency and severity of relapses, promoting normal psychosocial development of patients in their first psychotic episode and reducing family burden (Addington & Addington, 2001). With these purposes, the programme offers a three-year course of treatment structured around five areas:

1. *Case management*. Assignment of a psychiatrist and of a person responsible for the case to coordinate the programme through the different community resources employed and to perform support and educational tasks.
2. *Pharmacological treatment*. Atypical neuroleptics at low doses.
3. *Cognitive-behavioural therapy*. This is applied individually in two formats, one addressing the reduction of comorbidity and adaptation to the psychosis, and another addressing the reduction of positive symptoms.
4. *Group therapy*. Different types of groups are formed, each with a specific objective: education about psychosis, recovery group, health education, education about drug use, and reincorporation into one's normal lifestyle.
5. *Family interventions*. Single-family psychoeducational intervention, 6 to 8 initial sessions, for the first six months, brief family intervention groups in the following six months, focused on problem-solving, and planning of discharge from treatment in the second year.

Furthermore, this programme forms part of a multi-centre study for the detection and treatment of psychosis in its prodromal phase (PRIME), and constitutes one of the central planks of the Canadian health service's national project on early intervention, youth and mental illness.

After the first year of the programme, with 180 patients studied, its authors observed a significant improvement in positive symptoms measured through the PANSS and a reduction in clinical depression measured through the *Calgary Depression Scale*, but no significant effect on negative symptoms. Of the participating patients, 72% were in remission and 28% in psychotic state (Addington, Leriger & Addington, 2003).

CONCLUSIONS

This first half-decade of the 21st century has seen the

emergence of the first experimental work which, gradually and with the necessary prudence – given both the preliminary stage of such research and the small number of studies carried out so far – , is consistently providing scientific support for the principal theoretical postulates of the movement to promote early intervention in psychosis.

Thus, it would appear that the main objectives of this movement are beginning to benefit from a useful body of empirical work, which shows the possibility of detecting early psychosis effectively and sooner than was previously the case, in both its prepsychotic and first-episode forms (McGorry & cols., 2003; Phillips, McGorry, Young, McGlashan, Cornblatt & Klosterkötter, 2005). Research has also shown that it is possible to reduce substantially the time a person suffers from the disorder without receiving treatment, and that forms of treatment can be applied that succeed in delaying the onset of the illness, or at least reducing its impact, even if it eventually develops, and thus permit a quicker and more complete initial recovery (Edwards & McGorry, 2004; IEPA, 2005). Nevertheless, and despite this encouraging work and its findings, it has some substantial limitations, and there are still many unresolved questions to be dealt with.

We have seen how great and unprecedented progress is being made in the detection of prepsychotic states and in the identification of profiles of high risk of developing psychosis in the short term (Yung & cols., 2005; Miller & cols., 2003; Häfner & cols., 2004). We have also seen that individual cognitive therapies aid the process of delaying or preventing the onset of a psychotic episode (Morrison & cols., 2004; McGorry & cols., 2002; Bechdolf & cols., 2005), as well as being useful for speeding up recovery and reducing the symptom burden of acute episodes, for shortening hospital stays and even for reducing the residuality of clinical psychosis (Drury & cols., 1996; Lewis & cols., 2002; Startup & cols., 2004).

Furthermore, it has been proven that it is possible to achieve better adaptation and recovery from psychosis in the post-care phase (Jackson & cols., 2001). However, in the phase of stabilization after first episodes there is still a serious shortage of empirically validated psychological interventions (Marshall & Lockwood, 2005; Penn & cols., 2005; Haddock & Lewis, 2005), with substantial shortcomings in the specific therapeutic approaches to comorbidities, to the prevention of relapses or to rehospitalization. An important task for the future, then, is to improve the definition of treatments indicated for these initial phases, as well as to further refine and adjust the features of existing ones (duration, content, agenda, and so on) and, in turn, to study how to better integrate these interventions with other psychological and pharmacological treatments (Haddock & Lewis, 2005).

As regards integrated interventions developed by early intervention services, they have been seen to improve the initial course of the illness, so that waiting time without receiving treatment for first-episode psychosis patients has shrunk to practically zero (Larsen & cols., 2001); likewise, such interventions improve clinical state and social functioning, as well as proving useful for reducing hospital readmissions and lengths of stay (McGorry & cols., 1996; Addington & cols., 2003; Petersen & cols., 2005).

However, and despite such progress, there are significant methodological shortcomings, since the majority of these studies are based on quasi-experimental designs and use historical or prospective comparison groups or single-group designs, with scarcely any randomized and controlled trials. Caution should therefore be exercised in the consideration of these initial results (Penn & cols., 2005; Marshall & Lockwood, 2005).

Also, the very organization of early intervention services is still a matter for debate, since, as we have seen, there is a wide range of different approaches. These include the organization of early intervention as research programmes in acute care units or mental health centres, private initiatives involving a mixture of research and care, programmes forming part of a broad package of services within the general system, and even the development of a whole network of specialist services integrated within a national health system with the aim of radically changing forms of treating psychosis.

In any case, with all the limitations indicated – not to mention the possibility of others not dealt with here –, we feel we are witnessing a historic time in the treatment of psychosis, a time that will change irreversibly our conception of the illness, its treatment, the organization of services and the way we work. The developments to come can only signify an improvement on the important achievements so far.

ACKNOWLEDGEMENTS

This study forms part of the research project BSO2002-03436 from the Spanish Ministry of Science and Technology.

We dedicate this work to the memory of Tandy Miller, whose commitment, advice and technical support were of incalculable importance for our project.

REFERENCES

American Psychiatric Association (2004). *Practice guideline for the treatment of patients with* schizophrenia (Second edition). Washington, DC: APA.

Addington, J., & Addington, D. (2001). Early intervention for psychosis: The Calgary early psychosis treatment and prevention program. *Canadian Psychiatric Association Bulletin, 33*, 11-16.

Addington, J., Leriger, E. & Addington, D. (2003). Symptom outcome 1 year after admission to an early psychosis program. *Canadian Journal of Psychiatry, 48*, 204-207.

Addington, J. & Burnett, P. (2004). Working with families in the early stages of psychosis. In J. Gleeson & P.D. McGorry (Eds.), *Psychological interventions in early psychosis. A treatment handbook* (pp. 99-116). Chichester, UK: Wiley.

Addington, J., Collins, A., McCleery, A., & Addington, D. (2005a). The role of family work in early psychosis. *Schizophrenia Research, 79*, 77-83.

Addington, J., McCleery, A.& Addington, D. (2005b) Three year outcome of family work in early psychosis program. *Schizophrenia Research, 79*, 107-116.

Bechdolf, A., et al. (2005a). Interventions in the initial prodromal states of psychosis in Germany: concept and recruitment. *British Journal of Psychiatry, 187* (Suppl. 48), 45-48.

Bechdolf, A., Veith,V., Schwarzer, D., Schormann, M., Stamm, E., Janssen, B., Berning, J., Wagner, M., & Klosterkötter, J. (2005b). Cognitive-behavioral, a therapy in the pre-psychotic phase: An exploratory study. *Psychiatry Research, 136*, 251-255.

Bertolote, J., & McGorry,P. (2005). Early intervention and recovery for young people with early psychosis: Consensus statement. *British Journal of Psychiatry, 187* (Suppl.48), 116-119.

Birchwood, M. (2000). The critical period for early intervention. In M. Birchwood, D. Fowler & C. Jackson (Eds.), *Early intervention in psychosis: A guide to concepts, evidence and interventions* (pp. 28-63). Chichester, UK: Wiley.

Birchwood, M. (2005). Intervención temprana en psicosis: investigación, práctica clínica y reforma de los servicios en el Reino Unido. In J. L. Vázquez Barquero, V. Crespo & A. Herrán (Eds.), *Las fases tempranas de la psicosis* (pp. 145-159). Barcelona: Masson**.**

Cornblatt, B., Lencz, T. & Obuchowski, M. (2002). The schizophrenia prodrome: treatment and high-risk perspectives. *Schizophrenia Research*, 54, 177-186.

Cornblatt, B., Lencz, T., Smith, C., Correll, C. et al. (2003). The schizophrenia prodrome revisited: A neurodevelopmental perspective. *Schizophrenia Bulletin*, 29(4), 633-651.

Cornblatt, B., Lencz, T., Smith, C., & Auther, A. (2004). Treatment of the schizophrenia prodrome. In W. S. Stone, S.V. Faraone & M.T. Tsuang (Eds.), *Early clinical intervention and prevention in schizophrenia* (pp.303-323). Totowa, NJ: Humana Press

Drury, V., Birchwood, M., Cochrane, R., & MacMillan, F. (1996a). Cognitive therapy and recovery from acute psychosis: A controlled trial. I. Impact on psychotic symptoms. *British Journal of Psychiatry, 169*, 539-601.

Drury, V., Birchwood, M., Cochrane, R., & MacMillan, F. (1996b). Cognitive therapy and recovery from acute psychosis: A controlled trial. II. Impact on recovery time. *British Journal of Psychiatry, 169*, 602-607.

Drury, V., Birchwood, M., & Cochrane, R. (2000). Cognitive therapy and recovery from acute psychosis: A controlled trial. III: Five year follow-up. *British Journal of Psychiatry, 177*, 8-14.

Edwards, J., McGorry, P.D. & Pennell, K. (2000). Models of early intervention in psychosis: an analysis of service approaches. In M. Birchwood, K. Fowler & C. Jackson (Eds.), *Early intervention in psychosis: A guide to concepts, evidence and interventions* (pp. 281-314). Chichester, UK, Wiley.

Edwards, J., Maude, D., Herrmann-Doig., T., Wong, L., Cocks, J., Burnett, P., Bennett, C., Wade, D. & McGorry, P.D. (2002). A service response to prolonged recovery in early psychosis. *Psychiatric Services, 53(9)*, 1067-1069.

Edwards, J. & McGorry, P.D. (2004) *La intervención precoz en la psicosis. Guía para la creación de servicios de intervención precoz en la psicosis*. Madrid: Fundación para la investigación y e tratamiento de la esquizofrenia y otras psicosis (Orig., 2002).

Edwards, J., Wade, D., Herrmann-Doig, T. & Gee, D. (2004). Psychological treatment of persistent positive symptoms in young people with first-episode psychosis. In J. Gleeson & P.D. McGorry (Eds.), *Psychological interventions in early psychosis. A treatment handbook.* (pp. 191-208). Chichester, UK: Wiley.

Falloon, I. R. H. (1992). Early intervention for first episodes of schizophrenia: A preliminary exploration. *Psychiatry, 55*, 4-14.

Falloon, I., Kydd, R., Coverdale, J. & Tannis, M. (1996) Early detection and intervention for initial episodes of schizophrenia. *Schizophrenia Bulletin, 22 (2)*, 271-282.

French, P., & Morrison, A.P. (2004). *Early detection and cognitive therapy for people at high risk of developing psychosis*. Chichester, UK: Wiley.

Friis, S., et al. (2005). Effect on an early detection programme on duration of untreated psychosis. Part of the Scandinavian TIPS study. *British Journal of Psychiatry, 187* (Suppl. 48), 29-32.

Gleeson, J., Larsen, T.K. & McGorry, P.M. (2003). Psychological treatment in pre-and early psychosis. *Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry, 31(1)*, 229-245.

Gunduz-Bruce, H., McMeniman, M., Robinson, D., Woerner, M., Kane, J., Schooler, N., & Lieberman, J. (2005). Duration of untreated psychosis and time to treatment response for delusions and hallucinations. *American Journal of Psychiatry, 162*, 1966-1969.

Haddock, G., Tarrier, N., Morrison, A. P., Hopkins, R., Drake, R., & Lewis, S. (1999). A pilot study evaluating the effectiveness of individual inpatient cognitive-behavioural therapy in early psychosis. *Social Psychiatry and Psychiatric Epidemiology, 34*, 254-258.

Haddock, G., & Lewis, S. (2005). Psychological interventions in early psychosis. *Schizophrenia Bulletin, 31(3)*, 697-704.

Häfner, H., et al. (2004). Early detection and secondary prevention of psychosis: facts and visions. *European Archives of Psychiatry and Clinical Neuroscience, 254*, 117-128.

Herrmann-Doig, T., Maude, D. & Edwards, J. (2002). *Systematic Treatment of Persistent Psychosis (STOPP): A psychological approach to facilitating recovery in young people with first-episode psychosis*. London: Martin Dunitz.

Henry, L.P., Edwards, J., Jackson, H.J., Hulbert, C.A. & McGorry, P.D. (2002). *Cognitively oriented psychotherapy for first-episode psychosis (COPE): a practitioner's manual*. Manual 4 in a series of Early Psychosis Manuals. Melbourne: EPPIC

Henry, L. (2004). Psychological intervention in recovery from early psychosis: Cognitively oriented psychotherapy. In J. Gleeson & P.D. McGorry (Eds.), *Psychological interventions in early psychosis. A treatment handbook* (pp. 63-80). Chichester, UK: Wiley.

International Early Psychosis Association Writing Group (2005). International clinical practice guidelines for early psychosis. *British Journal of Psychiatry, 187* (Suppl. 48), 120-124.

Jackson, H., McGorry, P., Edwards, J., Hulbert, C., Henry, L., Francey, S., Maude, D., Cocks, J., Power, P., Harrigan, S., & Dudgeon, P. (1998). Cognitively-oriented psychotherapy for early psychosis (COPE): Preliminary results. *British Journal of Psychiatry, 172* (Suppl. 33), 93-100.

Jackson, H. J., Edwards, J., Hulbert, C., & McGorry, P. (1999). Recovery from psychosis: Psychological interventions. In P. McGorry & H. J. Jackson (Eds.), *The recognition and management of early psychosis: A preventive approach* (pp. 265-307). Cambridge: Cambridge University Press.

Jackson, H.J., Hulbert, C.A. & Henry, L.P. (2000). The treatment of secondary morbidity in first-episode psychosis. In M. Birchwood, D. Fowler, & C. Jackson (Eds.), *Early intervention in psychosis: A guide to concepts, evidence and interventions* (pp. 213-235). Chichester, UK: Wiley.

Jackson, H. J., McGorry, P., Edwards, J., Hulbert, C., Henry, L., Harrigan, S., Dudgeon, P., Francey, S., Maude,D., Cocks, J., Killackey, E., & Power,P. (2005). A controlled trial of cognitively oriented psychotherapy for early psychosis (COPE) with four year follow-up readmission data. *Pschological Medicine, 35*, 1-12.

Jeppesen, P., Petersen, L., Thorup, A., Abel, M., Oehlenschlaeger, J., Christensen, T., Krarup, G., Hemmingsen, R., Jorgensen, P., & Nordentoft, M. (2005). Integrated treatment of first-episode psychosis: effect of treatment on family burden. OPUS trial. *British Journal of Psychiatry, 187* (Suppl. 48), 85-90.

Johannessen, J., Larsen, T., McGlashan, T., & Vaglum, P. (2000). Early intervention in psychosis: The TIPS-project, a multi-centre study in Scandinavia. In B. Martindale, A. Bateman, M. Crowe & F. Margison (Eds.), *Psychosis: Psychological approaches and their effectiveness* (pp. 210-234). London: Gaskell.

Jorgensen, P., Nordentoft, M., Abel, M.B., Gouliaev, G., Jeppesen, P. & Kassow, P. (2000). Early detection and assertive community treatment of young psychotics: the Opus Study. Rationale and design of the trial. *Social Psychiatry and Psychiatric Epidemiology, 35*, 283-287.

Joseph, R. & Birchwood, M. (2005). The national policy reforms for mental health services and the story or early intervention services. *Rev. Psychiatr. Neurosci, 30* (5), 362-365.

Larsen, T. K., Johannessen, J.O., McGlashan, T. Horneland, M., Mardal, S. & Vaglum, P. (2000). Can duration of untreated illness be reduced? In M. Birchwood, K. Fowler & C. Jackson (Eds.), *Early intervention in psychosis: A guide to concepts, evidence and interventions* (pp. 143-165). Chichester, UK: Wiley.

Larsen, T. K., McGlashan, T., Johannessen, J.O., Friis, S., Guldberg, C., Haahr, U., Horneland, M., Melle, I., Moe, L., Opjordsmoen, S., Simonsen, E. & Vaglum, P. (2001). Shortened duration of untreated first episode of psychosis: Changes in patient characteristics at treatment. *American Journal of Psychiatry, 158*, 1917-1919.

Lemos, S., Vallina, O., Fernández, P., Ortega, J.A., García, P., Gutiérrez, A., García, A., Bobes, J. & Miller, T. (2005). Validez predictiva de la Escala de síndromes prodrómicos (SOPS). *Actas Españolas de Psiquiatria,* in press.

Lencz, T., Smith, C., Auther, A., Correll, C., & Cornblatt, B. (2004). Nonspecific and attenuated negative Symptoms in patients at clinical high-risk for schizophrenia. *Schizophrenia Research, 68*, 37-48.

Lenior, M., Dingemans, P., Linszen, D., De Haan, L & Schene, A. (2001). Social functioning and the course of early-onset schizophrenia: five years follow-up of a psychososocial intervention. *British Journal of Psychiatry, 179*, 53-58.

Lewis, S., Tarrier, N., Haddock, G., Bentall, R., Kinderman, P., Kingdon, D., Siddle, R., Drake, R., Everitt, J., Leadley, K., Benn, A., Grazebrook, K., Haley, c., Akhtar, S., Davies, L., Palmer, S., Faragher, B. & Dunn, G. (2002). Randomised controlled trial of cognitive-behavioural therapy in early schizophrenia: acute-phase outcomes. *British Journal of Psychiatry, 181* (Suppl. 43), 91-97.

Linszen, D., Dingemans, P. & Van der Does, AJW. (1996). Treatment, expressed emotion, and relapse in recent onset schizophrenic disorders. *Psychological Medicine, 26*, 333-342.

Marshall, M., & Lockwood, A., (2005). Early intervention for psychosis (review). *The Cochrane Library* 3: Wiley.

McGlashan,T.H., Zipursky,R.B., Perkins, D., Addington, J., Miller, T.J., Woods, S.W., Hawkins, K.A., Hoffman, R., Lindborf, S., Tohen, M. & Breier, A. (2003).The PRIME North America randomized double-blind clinical trial of olanzapine versus placebo in patients at risk of being prodromally symptomatic for psychosis I. Study rationale and design. *Schizophrenia Research, 61*, 7-18

McGorry, P.D., Edwards, J., Mihalopoulos, C., Harrigan, S. & Jackson, H.J. (1996). EPPIC: An evolving system of early detection and optimal management. *Schizophrenia Bulletin, 22(2)*, 305-326.

McGorry, P.D. (2000). Psychotherapy and recovery in early psychosis: A core clinical

and research challenge. In B. Martingale, A. Bateman, M. Crowe, & F. Margison (Eds.), *Psychosis: Psychological approaches and their effectiveness* (pp. 266-292). London: Gaskell.

McGorry, P. D., Yung, A., Phillips, L., Francey, S., Cosgrave, E.M., Germano, D., Bravin, J., McDonald, T., Blair, A., Adlard, S. & Jackson, H. (2002). Randomized controlled trial of interventions designed to reduce the risk of progression to first-episode psychosis in a clinical sample with subthreshold symptoms. *Archives of General Psychiatry, 59*, 921-928.

McGorry, P. D., Yung, A. & Phillips, L. (2003). "The "close-in" or ultra high-risk model: a safe and effective strategy for research and clinical intervention in prepsychotic mental disorder. *Schizophrenia Bulletin, 29(4)*, 771-790.

McGorry, P. D. (2004). An overview of the background and scope for psychological interventions in early psychosis. In J.F.M. Gleeson & P.D. McGorry (Eds.), *Psychological interventions in early psychosis. A treatment handbook* (pp 1-22). Chichester, UK: Wiley.

Miller, T.J., McGlashan, T.H., Woods, S.W., Stein, K., Driesen, N., Corcoran, C.M., Hoffman, R. & Davidson, L. (1999). Symptom assessment in schizophrenic prodromal states. *Psychiatric Quaterly, 70(4)*, 273-287.

Miller, T., McGlashan, T.H., Lifshey, J., Somiee, L., Stein, K. & Woods, S. (2002). Prospective diagnosis of the initial prodrome for schizophrenia based on the structured interview for prodromal syndromes: preliminary evidence of interrater reliability and predictive validity. *American Journal of Psychiatry, 159*, 863-865.

Miller, T., Zipursky, R.B., Perkins, D., Addington, J., Woods, S., Hawkins, K.A., Hoffman, R., Preda, A., Epstein, I., Addington, D., Lindborg, S., Marquez, S., Tohen, M., Breier, A. & McGlashan, T.H. (2003). The PRIME North America randomized double-blind clinical trial of olanzapine versus placebo in patients

at risk of being prodromally symptomatic for psychosis II. Baseline characteristics of the "prodromal" sample." *Schizophrenia Research, 61*, 19-30.

Miller, T. (2004). *Estudios de investigación del tratamiento del pródromo sintomático en esquizofrenia*. Presented at Jornada de Actualización en Fases Iniciales de los Trastornos Psicóticos. 10 June 2004. Oviedo.

Morrison, A. P., Bentall, R.P., French, P., Walford, L., Kilcommons, A., Knight, A., Kreutz, M. & Lewis, S.W. (2002). Randomised controlled trial of early detection and cognitive therapy for preventing transition to psychosis in high- risk individuals. *British Journal of Psychiatry, 181* (Suppl. 43), 78-84.

Morrison, A. P., French, P., Walford, L., Lewis, S., Kilcommons, A., Green, J., Parker, S. & Bentall, R.P. (2004). Cognitive therapy for the prevention of psychosis in people at ultra-high risk. *British Journal of Psychiatry, 185*, 291-297.

Penn, D. J., Waldheter, E.J., Perkins, D.O.; Mueser, K.T., & Lieberman, J.A. (2005). Psychosocial treatment for first-episode psychosis: A research Update. *American Journal of Psychiatry, 162*, 2220-2232.

Petersen, L., Nordentoft, M., Jeppesen, P., Ohlenschlaeger, J., Thorup, A., Christensen, T., Krarup, G., Dahlstrom, J., Haastrup, B., & Jorgensen, P. (2005). Improving 1-year outcome in first-episode psychosis. OPUS trial. *British Journal of Psychiatry, 187* (Suppl. 48), 98-103.

Phillips, L., et. al. (2002). The PACE clinic: identification and management of young people at "Ultra" high risk of psychosis." Journal of Psychiatric Practice, 8(5), 255-269.

Phillips, L., McGorry, P., Yung, A., McGlashan, T., Cornblatt, B., & Klosterkötter, J. (2005). Prepsychotic phase of schizophrenia and related disorders: recent progress and future opportunities. *British Journal of Psychiatry, 187* (Suppl. 48), 33-44.

Singh, S. P., & Fisher, H.L. (2005). Early intervention in psychosis: obstacles and opportunities. *Advances in Psychiatric Treatment, 11*, 71-78.

Startup, M., Jackson, M., & Bendix, S. (2004). North Wales randomized controlled trial of cognitive behaviour therapy for acute schizophrenia spectrum disorders: outcomes at 6 and 12 months. *Psychological Medicine, 34*, 413-422.

Startup, M., Jackson, M., Evans, K., & Bendix, S. (2005). North Wales randomized controlled trial of cognitive behaviour therapy for acute schizophrenia spectrum disorders: two-year follow-up and economic evaluation. *Psychological Medicine, 35*, 1-10.

Tarrier, N., Lewis,S, Haddock, G., Bentall, R., Drake, R.,Kinderman, P., Kingdon, D., Siddle, R., Everitt, J., Leadley, K., Benn, A., Grazebrook, K., Haley, C., Akhtar, S., Davies, L., Palmer, S., Faragher, B. & Dunn, G. (2004). Cognitive- behavioural therapy in first-episode and early schizophrenia.18-month follow-up of a randomised controlled trial. *British Journal of Psychiatry, 184*, 231-239.

Thorup, A., Petersen, L., Jeppesen, P., Ohlenschlaeger, J.,Christensen, T., Krarup, G., Jorgensen, P., & Nordentoft, M. (2005). Integrated treatment ameliorates negative symptoms in first episode psychosis- results from the Danish OPUS trial. *Schizophrenia Research, 79*, 95-105.

Vallina, O. (2002). El inicio de la rehabilitación psicosocial: la intervención temprana en psicosis. In M.A. Verdugo, D. López, A. Gçomez & M. Rodríguez (Eds.), *Rehabilitación en salud mental. Situaciones y perspectivas*. (pp. 243-266). Salamanca: Amarú**.**

Vallina, O., Alonso, M., Gutierrez, A., Ortega, J.A., García, A., Fernández, P. & Lemos, S. (2003). Aplicación de un programa de intervención temprana en psicosis. Un nuevo desarrollo para las unidades de salud mental. *Avances en Salud Mental Relacional, 2*, 2. http://bibliopsiquis.com/asmr/0203/

Vallina, O., Ortega, J.A., Gutiérrez, A., Garcia, P., García, A., Fernández, P. & Lemos, S. (2004) Intervención temprana en psicosis: La experiencia en Torrelavega. Ponencia presentada al X Curso Anual de Esquizofrenia: “Psicoterapias e intervenciones precoces en la esquizofrenia”. Madrid

Yung, A., Phillips, L.J., Pan Yuen, H., Francey, S., McFarlane, C.A., Hallgren, M.A. & McGorry, P.D. (2003). Psychosis prediction: 12-month follow up of a high-risk ("prodromal") group. *Schizophrenia Research, 60*, 21-32.

Yung, A. R., Phillips, L.J., Pan Yuen, H., & McGorry, P.D. (2004). Risk factors for psychosis in an ultra high-risk group: psychopathology and clinical features. *Schizophrenia Research, 67*, 131-142.

Yung, A., Yuen, H., McGorry, P., Phillips, L., Kelly, D., DellÓllio, M., Francey, S., Cosgrave, E., Killackey, E., Stanford, C., Godfrey,K., & Buckby, J. (2005). Mapping the onset of psychosis: the comprehensive assessment of a at-risk mental states. *Australian and New Zealand Journal of Psychiatry, 39*, 964-971.