

Rationale and state of the art in early detection and intervention in psychosis

Tecelli Domínguez Martínez,^{1,2} Joan Manel Blanqué,³ Jordi Codina,³ Mónica Montoro,³ Luis Mauri,³ Neus Barrantes-Vidal^{1,3,4,5}

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SUMMARY

Schizophrenia-spectrum disorders have a chronic and episodic course that results in impairment of all life domains. Pharmacological and psychosocial treatments provide symptom relief, but there is not a cure for schizophrenia and many patients suffer chronic impairment. In addition, it is expensive both in economical terms and also in terms of personal costs for both patients and their families.

International interest has grown over the past 15 years in the prognostic potential of early identification and intervention in the prodromal and first-episode phases of psychotic illness. This focus is associated with increasing optimism about the benefits of implementing treatment as early as possible in the course of psychosis at least to help improve the course of illness, reducing its long-term impact.

The most recent epidemiological studies have shown that patients with longer duration of untreated psychosis (DUP) have worse short-term outcomes in terms of treatment response, positive symptoms, negative symptoms, and global functioning. Neuroimaging studies have also indicated that prolonged untreated illness is associated with more pronounced structural brain abnormalities, while this is less prominent earlier in the course of the disorder. Therefore, early detection aims to reduce treatment delay in the hope of improving prognosis and reducing illness severity. Early intervention in psychotic disorders has gained momentum in the last decades, and there is now an estimated 200 centers worldwide offering specialized services for young people experiencing their first episode of psychosis. Each of these programs has unique characteristics and distinctive features in terms of treatment modalities and assessment tools, but most have a number of common elements and goals: a) early detection of new cases, b) reducing DUP, and c) providing better and continued treatment during the «critical period» of the early years of the disease.

Moreover, the role of family work in early psychosis can be crucial given that relatives are the main informal caretakers of persons with mental health problems. Family interventions in early psychosis usually offer psychoeducation and/or individual and group family therapy, communication and problem solving training, which can help to develop coping strategies and reduce distress and burden.

Intervention programs in early psychosis are usually composed by interdisciplinary teams, providing a wide range of integrated services that typically include psychoeducation, clinical case

management, and group interventions. Specific interventions generally include pharmacotherapy, stress management, relapse prevention, social and employment rehabilitation support, and cognitive and family therapy.

Given the complex etiology and clinical manifestation of psychosis, treatment packages for people experiencing early psychosis need to be individually tailored to specific needs rather than applied homogeneously across early psychosis patients.

The current challenge in the implementation of psychological interventions in the early stages of psychosis are: 1. to adapt treatment modalities that have been proven effective in stable and residual stages of the disease to its early stages; 2. to develop new forms of therapy tailored to the specific characteristics of these early stages of psychosis (prodromal and ultra high-risk phase, onset and first episode psychosis, and «critical period» or post-crisis psychosis); and 3. treatment packages need to be individually tailored to their specific needs rather than applied homogeneously across a group of patients.

The aims of this paper are: 1. to present the basic concepts, rationale and state of the art of the early detection and intervention paradigm; 2. to review and present the main detection and intervention programs in early psychosis and 3. to provide an overview of the current psychotherapeutic approaches in early psychosis.

Key words: Early detection and intervention, early psychosis, psychotherapeutic approach, need-adapted treatment.

RESUMEN

Los trastornos del espectro psicótico presentan un curso crónico y episódico que provoca alteraciones en todas las áreas de la vida, generando importantes grados de discapacidad, pérdida de funciones psicosociales, grandes costos económicos, una comorbilidad considerable y sufrimiento tanto para los pacientes como para sus familias. A pesar de que los tratamientos farmacológicos y psicosociales han ayudado a aliviar los síntomas y mejorar la calidad de vida, en muy pocas ocasiones se logra una recuperación satisfactoria a nivel psicológico y funcional.

Durante los últimos 15 años, el optimismo creciente sobre la posibilidad de mejorar el pronóstico de la psicosis y alterar con ello el tradicional curso negativo de la enfermedad ha producido una

¹ Universitat Autònoma de Barcelona, Departament de Psicologia Clínica i de la Salut, Facultat de Psicologia, Barcelona.

² Ministerio de Asuntos Exteriores y de Cooperación y la Agencia Española de Cooperación Internacional para el Desarrollo (MAEC-AECID).

³ Sant Pere Claver Fundació Sanitària, Departament de Salut Mental, Barcelona.

⁴ University of North Carolina at Greensboro, Department of Psychology.

⁵ Instituto de Salud Carlos III, Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM), Spain.

Correspondencia: Neus Barrantes-Vidal. Departament de Psicologia Clínica i de la Salut, Facultat de Psicologia, Universitat Autònoma de Barcelona (UAB) 08193 Bellaterra (Barcelona), España. Tel. +34 93 581 38 64. Fax. +34 93 581 21 25. E.mail: Neus.Barrantes@uab.cat

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reforma sustancial en la práctica clínica y en el desarrollo de estrategias de intervención temprana en muchos países. De esta manera, el desplazamiento del foco de atención desde las fases estables o residuales de la psicosis hacia los inicios de la misma está suponiendo una serie de innovaciones y avances, tanto en la evaluación y diagnóstico como en las modalidades terapéuticas y en la consiguiente reordenación de los servicios asistenciales.

Los estudios epidemiológicos más recientes han mostrado que los pacientes con mayor duración de la psicosis no tratada tienen peor respuesta al tratamiento farmacológico, mayor gravedad de síntomas positivos, síntomas negativos y peor funcionamiento global. Por otra parte, los estudios de neuroimagen también indican que un periodo prolongado de enfermedad no tratada produce anomalías estructurales cerebrales más pronunciadas. Es por esto que la detección temprana en psicosis tiene como objetivo reducir la demora del tratamiento para mejorar el pronóstico y reducir la gravedad del trastorno.

La detección temprana y la aplicación del tratamiento específico más eficaz para cada fase inicial del trastorno son dos elementos que diferencian la intervención temprana de las formas habituales de asistencia actuales.

Cada vez existen más grupos en todo el mundo dedicados a establecer programas clínicos e iniciativas de investigación centradas en la psicosis temprana. Cada uno de estos programas tiene características particulares y rasgos propios en cuanto a las modalidades de tratamiento o los instrumentos de evaluación, pero la mayoría tiene una serie de elementos y objetivos en común: a) detectar de forma precoz nuevos casos; b) reducir el periodo de tiempo desde que el paciente presenta una sintomatología claramente psicótica hasta que recibe un tratamiento adecuado y c) proporcionar un mejor y continuo tratamiento en el «periodo crítico» de los primeros años de la enfermedad.

En el contexto de la prevención e intervención temprana, el trabajo con la familia puede ser crucial, ya que los familiares son los principales cuidadores informales y son una parte fundamental

para la recuperación del paciente. La mayoría de las intervenciones familiares ofrecen psicoeducación y/o terapia familiar que ayudan a desarrollar estrategias de adaptación y afrontamiento, disminuir el estrés y la carga a largo plazo, así como mejorar la comunicación y la resolución de problemas.

Los programas de intervención en la psicosis temprana están habitualmente formados por equipos interdisciplinarios que proporcionan una amplia serie de servicios integrados que suelen incluir psicoeducación, manejo clínico de casos e intervenciones grupales. Las intervenciones específicas incluyen generalmente farmacoterapia, manejo de estrés, prevención de recaídas, apoyo y rehabilitación social y laboral, así como terapia cognitiva y familiar.

Dada la compleja etiología y manifestación clínica de la psicosis, los tratamientos para personas con psicosis incipiente deben ser adaptados individualmente a las necesidades específicas en lugar de aplicarlos homogéneamente a todos los pacientes por igual.

El desafío actual en la aplicación de intervenciones en la psicosis temprana consiste en: 1. conseguir adaptar aquellas modalidades de tratamiento que ya han demostrado su eficacia en las fases estables y residuales de la enfermedad a los inicios de la misma; 2. integrar y desarrollar nuevas formas de terapia que se adapten a las características específicas de cada una de las fases iniciales de la psicosis (fase prodrómica o de alto riesgo, inicio de la psicosis o primer episodio de psicosis y «fase crítica» o poscrisis) y 3. adecuar los tratamientos de manera individual en vez de aplicarlos de forma homogénea.

Los objetivos del presente artículo son: 1. presentar los conceptos básicos, la justificación y el estado de la cuestión del paradigma de detección e intervención temprana en psicosis; 2. hacer una revisión y presentar los principales programas de detección e intervención temprana en psicosis y 3. proporcionar una visión general de los enfoques psicoterapéuticos actuales en psicosis incipiente.

Palabras clave: Detección e intervención temprana, psicosis incipiente, tratamiento integrado y adaptado a las necesidades.

INTRODUCTION

A conceptual change: From chronic schizophrenia to early psychosis

Schizophrenia-spectrum disorders usually have a chronic and episodic course that results in impairment of all life domains. Patients frequently require hospitalization and many are unable to return to independent functioning in residual periods. Disorders typically start in late adolescence, disrupting patients' transition into adulthood.^{1,2}

Pharmacological and psychosocial treatments provide symptom relief, but there is not a cure for schizophrenia and many patients suffer chronic impairment, which has huge social and economic costs.

In recent years there has been increasing confidence that preventive intervention in psychotic disorders might be a realistic proposition in clinical settings.^{3,4} International interest has grown over the past 15 years in the prognostic potential of early identification and intervention in the prodromal and first-episode phases of psychosis, assuming that it could at least help to improve the course of illness,

reducing its long-term impact.⁵ This is consistent with a recently adopted staging model in psychiatry, which emphasizes that less differentiated early phases of mental illnesses may benefit from a broader spectrum and simpler treatments, allowing young people to receive the help they need in a timely manner, with the potential for improved outcomes across several fronts.⁶ Thus, early intervention programs have been initiated worldwide, beginning with Yung, McGorry and colleagues⁷ in Australia and then moving to the United States and Europe shortly thereafter.

The early psychosis movement focused at first on the timely recognition and phase-specific treatment of first-episode psychosis (FEP). However, it was also recognized that for most patients a prolonged period of attenuated symptoms and impaired functioning precedes FEP.¹ Much of the disability associated with the psychotic disorders, particularly schizophrenia, develops long before the onset of frank psychosis and is difficult to reverse even if FEP is successfully treated.⁸ This pre-onset period of illness has been termed the «prodromal phase», characterized by various mental state features, including non-specific symptoms such as depressed mood and anxiety, negative

signs and symptoms as well as sub-threshold or attenuated psychotic symptoms. Accordingly, the putative prodromal symptoms and signs can be divided into those that are more distal to the onset of psychosis (*early prodrome*) and those more proximal to the onset of psychosis (*late prodrome*).⁹ Nevertheless, the prodrome is a retrospective concept which cannot be deemed to have occurred until the onset of full-blown psychotic symptoms indicative of definitive psychotic disorder, when the opportunity for preventing onset has passed.^{1,10}

The possibility to monitor prospectively those people at heightened risk for developing FEP lies in the new identification and follow-up of such population who demonstrate clinical high risk factors for subsequent psychosis, established as «at-risk mental state» (ARMS) and «ultra-high risk» (UHR).¹¹

The first study using UHR criteria found a transition rate of 40% to full-threshold psychotic disorder within one year, despite the provision of needs-based psychosocial intervention and antidepressant treatment where indicated.¹² This finding has subsequently been replicated by several groups internationally,^{13,14} including the recent multicentre North American Prodromal Longitudinal Study (NALPS),¹⁵ which reported an average 1-year transition rate of 36.7% in UHR subjects who did not receive antipsychotic treatment. These results indicated that the UHR criteria are valid and reliable for predicting psychosis onset in this population.⁶

Unlike the predominant UHR approach, which only takes into account the severity of positive symptoms for meeting UHR criteria, the Hillside Recognition and Prevention Program (H-RAP) in New York¹⁶ takes into account specific combinations of cognitive, academic and social impairments and disorganization/odd behavior.

EARLY DETECTION METHODS

Yung and McGorry¹⁷ were the first to develop operational criteria to detect UHR patients, resulting in the Comprehensive Assessment of at Risk Mental State (CAARMS). They distinguished three distinct high-risk groups to identify and follow prospectively the rate of conversion to psychosis: 1. *attenuated positive symptoms (APS)*; 2. *frankly psychotic positive symptoms that appear too brief and too intermittently to constitute a fully psychotic syndrome (brief limited intermittent psychotic symptoms, BLIPS)* and 3. *vulnerability group*, characterized by functional decline in persons at risk for psychosis (because of meeting criteria for schizotypal personality disorder or having a first-degree relative with a psychotic disorder). Moreover, Miller, McGlashan and colleagues developed the Structured Interview for Prodromal Syndromes (SIPS) and the companion Scale of Prodromal

Symptoms (SOPS),¹⁸ which have become the prevailing prodromal instrument in North American studies, while the CAARMS has a predominating influence in Australia and many studies in Europe.

A different approach to early recognition was taken by German research groups, resulting in a set of criteria that are known as self-perceived cognitive and perceptual deficits, or «basic symptoms», characterized by subjective disturbances of self-perception, stress tolerance, thought organization, and social and nonverbal interactions that are generally not observed by others.¹⁹ The German concept of basic symptoms has been operationalized in the Schizophrenia Proneness Instrument Adult Version (SPI-A)²⁰ and recently adapted for child and adolescent population (the Schizophrenia Proneness Instrument, Child and Youth version- SPI-CY).²¹

Rationale of early psychosis intervention

A key rationale for the early intervention paradigm has been the association between prolonged illness duration and poor outcome in the psychotic disorders. On the one hand, the duration of untreated psychosis (DUP) is negatively associated with the long-term symptomatic and functional outcomes in schizophrenia.²² Neuroimaging studies have also indicated that prolonged untreated illness is associated with more pronounced structural brain abnormalities, while this is less prominent earlier in the course of the disorder.²³ On the other hand, research indicates that cognitive functioning deteriorates steeply before psychotic symptoms fully manifest.²⁴ Thus, interventions delivered during the early phases of illness manifestation are believed to help preserve the individual's overall functional ability by reducing DUP and/or addressing the deterioration of functioning before FEP.²⁵

Naturally, early detection raises important ethical issues²⁶ as 60% or more ARMS will not, even without treatment, develop psychosis.²⁷ However, it must be reminded that psychotherapy has been suggested as one approach for mitigating this problem by offering safe treatments,²⁸ allowing delaying the onset of psychosis or ameliorating its severity once it begins, and thus it could also be unethical not to provide treatment to help-seeking or already disturbed individuals.

Moreover, the role of family work in early psychosis can be crucial given that relatives are the main informal caretakers of persons with mental health problems. In particular, relatives of schizophrenia patients report burden and distress, anxiety, depression and economic strain.²⁹ High Expressed emotion (EE),³⁰ which comprises over-involvement, criticism and hostility, has been shown to be a robust predictor of relapse in both chronic and FEP patients.^{31,32} Even though it has been less studied in the early phase of psychosis, some studies have shown that

high EE is already present in early psychosis.^{33,34} Given that the majority of ARMS and FEP individuals are adolescents or youngsters, investigation of family risk and protective factors would be essential for the design of developmentally appropriate early interventions.³⁴

Main early detection and intervention programs

A clearer framework for guiding, designing, and evaluating preventive interventions in mental disorders has been developed. As a consequence, a series of research projects and real-world services systems are being created. Additionally, several influential international figures and research groups have developed and cooperated in disseminating a more optimistic set of ideas concerning early intervention in psychosis.³⁵⁻³⁷

The focus on specific treatments aimed at preventing progression to psychosis or promoting recovery in those who have experienced a psychotic episode has tended to be classified into three main categories: 1. prodromal or «high-risk» phase; 2. onset or FEP; 3. post-psychosis phase, also known as «critical period», covering the period following recovery from FEP up to five years subsequently.³⁸

Most groups working with the UHR population have attempted to engage patients in various psychological interventions using a recovery model of treatment. These interventions include case management, individual therapy, psychoeducation and Cognitive-Behavioral Therapy (CBT), multifamily support groups and supported education and employment.³⁹ However, specific family interventions, such as problem solving and communication skills training, have also been suggested as possible interventions that may improve the functional prognosis of young people at UHR for psychosis.⁴⁰

The main early detection and intervention services and research programs are presented in table 1. Given that each program has numerous publications, table 1 shows only the references of those articles that describe the programs and those with the most recent findings. For more information, we also include some of the available websites of the programs.

FURTHER CONCEPTUAL DEVELOPMENTS AND THEIR POTENTIAL THERAPEUTIC APPLICATIONS

Psychotherapy takes place in diverse settings, with diverse groups, utilizing a bewildering array of techniques and styles informed by a vast array of theories and ideologies.

Usually, the most widely used interventions in psychosis are psychoeducation and CBT. A multitude of studies have demonstrated a clear superiority of psychoeducational family interventions as compared with standard treatments,⁶⁴ and may be considered both clinically beneficial and cost-

effective.⁶⁵ However, it is well known that psychoeducation by itself may not be sufficient to reduce the consequences of the experience of caregiving for a family member of a psychotic patient and, therefore, it has to be seen as a precursor and catalyst for subsequent complementary psychotherapeutic and psychosocial treatment strategies.⁶⁴

Moreover, in regard to CBT, there are controversial results and its effectiveness is still not entirely clear for the early phases of psychosis,⁶⁶ because only a small number of controlled trials of CBT in early stages of psychosis have been published.⁶⁷ In contrast to the substantial body of positive findings for individual CBT treatment of chronic psychosis, the majority of data on individual CBT for early psychosis is not favorable.⁶⁸

On the other hand, the relative shortage of systematic research in modern dynamic models can give the impression of a lack of positive results, unlike CBT techniques.⁶⁹ In fact, therapies based on psychodynamic traditions do not feature greatly in recent discussions, and more research is needed to provide relevant answers to the unsolved questions regarding their usefulness and efficacy in early psychosis intervention.⁷⁰ However, this tradition probably has most extensive experience and elaborates conceptions for dealing therapeutically with cases in the borderline area of normality and psychosis.²⁶

No single type of therapeutic activity is ideal for all patients. Different subgroups of patients require different approaches within a broad spectrum of psychotherapeutic models. There is a clear need for a broader theoretical foundation of a set of therapeutic techniques, and also for the ability of greater depth and duration of therapy.⁷¹ The stress-vulnerability model, along with advances in research of CBT, has been an opportunity for the fusion of dynamic and cognitive approaches, such as in the cognitive analytic therapy⁷² or the psychodynamic-interpersonal psychotherapy^{73,74} which rely less on direct interpretations than in conventional psychodynamic therapy and make more emphasis upon the patient-therapist relationship than in interpersonal therapy or CBT. Although the experience of these integrative models is still limited and requires more extensive and systematic formalization and evaluation, it seems that their recent development could play a useful role in the expansion of psychotherapeutic theory and practice.⁷²

The current challenges for psychological interventions in early psychosis are: 1. to adapt treatment modalities that have been proven effective in stable and residual stages of the disease to early psychosis and 2. to develop new forms of therapy tailored to the very specific characteristics of the early stages of psychosis.⁷⁵

Given the complex etiology and clinical manifestation of psychosis, treatment packages for people experiencing early psychosis need to be individually tailored to specific needs rather than applied homogeneously across early psychosis patients.⁷⁶ One example is the work of the group

Table 1: Main international early detection and intervention clinical settings and research programs

CLINICAL SETTINGS				
PROGRAM	AIMS	METHOD	INTERVENTION	MAIN FINDINGS
Buckingham Integrated Mental Health Care Project (1984-1988). ⁴¹ Buckinghamshire, England.	Pioneering study in primary prevention; first to organize a very early detection of psychosis.	<i>Design:</i> Prospective clinical trial. <i>Sample:</i> Patients with possible prodromal symptoms identified by the 10-question screening (10-QS). ⁴²	Low-dose medication, crisis-orientated family intervention, with an emphasis on problem solving, social skills training and education about the nature of schizophrenia.	A 10-fold reduction in the annual incidence of schizophrenia, from 7.4/100 000 to 0.75/100 000 total population, was achieved.
The Early Detection and Intervention Evaluation (EDIE) trial. ^{43,44} United Kingdom (UK) www.psych-sci.manchester.ac.uk/edie2.	To identify an indicated high-risk group and randomly allocate participants to a psychological intervention or a monthly monitoring condition.	<i>Design:</i> A randomized controlled trial. <i>Sample:</i> People at high risk of psychosis using CAARMS criteria. ¹⁷	Psychological intervention (cognitive therapy), or a monthly monitoring condition.	Cognitive therapy appears to be an efficacious intervention for people at high risk of developing psychosis.
The Lambeth Early Onset (LEO) and Outreach & Support in South London service (OASIS) ⁴⁵ London, UK.	1) To reduce the delays that young people with psychosis experience; 2) to provide intensive follow up for 2 years to maximize their chances of a full recovery to normal functioning; 3) to minimize the potential for relapse during the critical first years; and 4) to reduce the distress and burden on carers.	<i>Design:</i> Prospective clinical trial. <i>Sample:</i> Young people experiencing FEP and their carers.	Intensive case management with a range of psychosocial interventions focusing on recovery and relapse prevention. Specific intervention includes CBT therapy, group interventions, carer support and psychoeducation groups, and pharmacotherapy. OASIS services are also part of a network of 15 early intervention services which uses standard clinical audit system evaluation.	Compared to standard service, patients' delays in accessing treatment are less, and outcomes at 18 months are better.
The Birmingham Early Intervention Service (EIS). ⁴⁶ United Kingdom. www.bsmhft.nhs.uk	To support younger people through the critical early phase of FEP.	<i>Design:</i> Prospective clinical. <i>Sample:</i> FEP patients.	Pharmacological treatment at low doses, information, education and work support and support to families.	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.
RESEARCH PROGRAMS				
PROGRAM	AIMS	METHOD	INTERVENTION	MAIN FINDINGS
The Detection of Early Psychosis (DEEP). ⁴⁷ Turku, Finland www.med.utu.fi/tutkimus/tutkimusprojektit/psykiatria3.html	To describe psychopathology and deficiencies in neuropsychological, neuroimaging and neurophysiological examination of subjects vulnerable to psychosis.	<i>Design:</i> Prospective and longitudinal study. <i>Sample:</i> Several groups are selected for a screening of prodromal symptoms (SIPS-SOPS criteria). ¹⁸	–	All the patients are currently being followed-up and no preliminary data are available.
The European Prediction of Psychosis Study (EPOS). ^{48,49} Germany, Finland, The Netherlands, UK and Spain, the study is carried out in Cologne, Berlin, Turku, Amsterdam, Birmingham and Manchester. www.epos5.org	Is the first European multicentre investigation focusing on early detection of persons at risk for psychosis.	<i>Design:</i> Prospective multicenter, naturalistic field study. <i>Sample:</i> Persons between 16 and 35 years with the UHR criteria used by Yung ¹⁷ and Miller ¹⁸ groups. Includes a comprehensive baseline assessment and two follow-ups, at 9 and 18 months.	Psychological and psychopharmacological treatment.	The instantaneous incidence rates (iIRs) of transitions to psychosis were 14% after 12 months and 19% after 18 months. The extent and course of EPOS transition rates are consistent with recent reports of lower 12-months transition rates and of a further progression of rates beyond 12 months.
The North American Prodrome Longitudinal Study (NALPS). ⁵⁰ United States. www.napls.psych.ucla.edu	To establish consortium of prodromal psychosis research centers and Integrate database.	<i>Design:</i> Collaborative multisite investigation, longitudinal database. <i>Sample:</i> Non-psychotic subjects enrolled between 1998 and 2005.	Each study of NALPS has its specific type of intervention.	The NALPS represents the largest sample of prospectively followed at risk subjects worldwide and will be used to explore a series of questions related to prodromal psychosis.

Table 1. Main international early detection and intervention clinical settings and research programs (continued)

CLINICAL SETTINGS WITH RESEARCH PROGRAMS				
PROGRAM	AIMS	METHOD	INTERVENTION	MAIN FINDINGS
Early Psychosis Prevention and Intervention Centre (EPPIC). ⁵¹ Melbourne, Australia. www.eppic.org.au	1) To provide both early detection and specialized treatment for early psychosis and treatment-resistant psychosis; and 2) to evaluate the effectiveness of the EPPIC program on 12 months outcome in FEP, in contrast to the previous model of care.	<i>Design:</i> Prospective clinical trial with historical control group. <i>Sample:</i> Patients with onset of psychosis between the ages of 16 and 30 using CAARMS criteria. ¹⁷	Providing necessary education, offering support and attaining a shared explanatory model and intervention plan with the patient and their family. Combined pharmacological, psychological, family and social interventions, which focus on managing triggers and promoting resilience.	During the 1-year follow-up period, the EPPIC sample experienced significantly fewer admissions, had shorter periods as in-patients and had a reduction in both acute and post-acute levels of neuroleptic dosage. The patients also had significantly better Quality of Life Scores (QOS) and significantly less negative symptoms at follow-up. This effect was strongest for patients with a DUP of 1–6 months.
The Personal Assessment and Crisis Evaluation Service (PACE). ⁵² Melburne, Australia. www.cp.oyh.org.au	1) To improve understanding of the neurobiological and psychosocial processes during the pre-psychotic phase and contribute to the onset of acute psychosis; 2) to develop psychological and medical interventions and evaluate their safety and efficacy; 3) to establish an accessible and appropriate clinical service specifically for young people at risk of psychosis.	<i>Design:</i> Prospective longitudinal study. <i>Sample:</i> Patients between the ages of 16-30 identified as UHR for developing a psychotic disorder using CAARMS criteria. ¹⁷	Combined psychological therapy/ medication intervention in reducing pre-psychotic symptomatology and delaying or preventing the onset of psychosis.	The results seem to indicate that psychological and psychosocial interventions, either alone or in combination with pharmacotherapy, may be effective in at least delaying, if not preventing, the onset of a psychotic disorder.
The Early Detection and Intervention Programme of the German Research Network on Schizophrenia (GRNS). ⁵³ Cologne, Bonn and Düsseldorf.	To promote help-seeking and engagement with early intervention services for individuals at-risk of psychosis.	<i>Design:</i> Longitudinal Study. <i>Sample:</i> Young people suffering from possible pre-psychotic symptoms using the Early Recognition Inventory (ERlraos). ⁵⁴	Comprehensive cognitive behavioural therapy has been developed for patients in the early initial prodromal state. For patients in the late initial prodromal state the atypical neuroleptic amisulpride is explored. Both interventions are evaluated in randomised controlled trials using clinical management as the control condition.	The GRNS Early Detection and Intervention programme including awareness campaigns and a two-stage screening approach, appears to be feasible and effective in recruiting at-risk individuals with putatively prodromal symptoms for interventions in the initial prodromal phase.
The Early Treatment and Intervention of Psychosis (TIPS) project. ⁵⁵ Rogaland County, Norway; Oslo, Norway; and Roskilde County, Denmark. www.tips-info.com	To test whether an earlier treatment in FEP can change the natural course of the disorder.	<i>Design:</i> Multicenter prospective and longitudinal study. <i>Sample:</i> FEP-affective psychosis assessed with the same rating instruments at baseline, 3 months, 1, 2 and 5 years.	Antipsychotic treatment, weekly supportive psychotherapy and psychoeducational multifamily group treatment every second week.	To our knowledge, this study is the first to demonstrate a reduction of DUP in a representative sample of FEP patients. Early detection of psychosis is both possible and important even though it was not found obvious effect on positive symptoms during the first year of treatment.
Early Treatment of Pre-psychosis (TOPP) project (it is part of an ongoing international multisite TIPS study). ⁵⁶ Stavanger, Norway.	To study whether patient to define prodromal states develop psychosis within a 5-year follow-up period.	<i>Design:</i> Longitudinal and prospective study. <i>Sample:</i> Patients at risk to develop psychosis according to SIPS/SOPS scales. ¹⁸	Supportive psychotherapy without use of antipsychotics	At 2006, 30 patients were included; during the first year of follow-up 5 cases have developed psychosis which equals 17%.
Calgary Early Psychosis Program (EPP). ^{57,58} Calgary-Canada. www.albertahealthservices.ca/services.asp?pid=service&rid=1003859	1) To identify early psychotic illness, reduction in the delays in initial treatment, reduction of secondary morbidity, reduction of frequency and severity of relapse, promotion of normal psychosocial development; and 2) reduction of burden's family.	<i>Design:</i> Prospective clinical trial and longitudinal study. <i>Sample:</i> FEP and their families.	Case management, psychiatric medication, CBT, group therapy and family interventions.	Over the 2 years it demonstrates that family intervention can be effective in a real clinical situation and represents an important component of any program for early psychosis. There were no differences between the two treatment groups. However, the improvement in attenuated positive symptoms was more rapid for the CBT group.

Table 1: Main international early detection and intervention clinical settings and research programs (continued)

PROGRAM	AIMS	METHOD	INTERVENTION	MAIN FINDINGS
The early detection and assertive community treatment of young persons with untreated psychosis (OPUS). ^{59,60} Denmark.	This study in Denmark has established early detection teams in one study sector and aims at comparing with 'detection as usual' in the other study sector.	<i>Design:</i> Prospective follow-up study. <i>Sample:</i> Young persons with untreated psychosis.	Integrate treatment includes individual case management and antipsychotic medication, psycho-educational family treatment, social skills training and assertive community treatment.	The initial findings of the OPUS study suggest that better adherence to treatment is possible. The benefits of the intensive early-intervention program after 2 years were not sustainable, and no basic changes in illness were seen after 5 years from the start of the program.
The Prevention Through Risk Identification, Management, and Education (PRIME). ⁶¹ New Haven, Connecticut, USA. www.camh.net	To test in a double-blind study whether early treatment with an atypical antipsychotic compared to placebo can prevent or delay the onset of psychosis.	<i>Design:</i> Double-blind controlled trial. <i>Sample:</i> Patients who are judged to be at risk for psychosis according to SIPS/SOPS scales. ¹⁸	Randomization to olanzapine or placebo (double-blind), individual and family intervention, and psycho-social intervention (stress management and problem-solving skills training).	Preliminary data on the first 35 patients who are judged to be at risk for psychosis report that 24 patients have been randomized into the clinical trial. The conversion to psychosis rate as at January 1, 2000, is 33%.
The Recognition and Prevention of Psychological Problems (RAP). ¹⁶ New York, USA. www.northshorelij.com/NSLIJ/RAP	To prevent severe mental illness focusing on patients with possible prodromal symptoms or early symptoms of psychosis.	<i>Design:</i> Prospective longitudinal study. <i>Sample:</i> Patients between the ages 12 and 25 with prodromal symptoms or early symptoms of psychosis according to RAP prodromal criteria. ¹⁶	Pharmacotherapy with combination of psychotherapy (individual, family and group).	RAP treatment findings suggest that medications other than anti-psychotics may be effective for treating early prodromal symptoms, challenging the widely held hypothesis that antipsychotics should always be the first line preventive treatment.
The Prevention Program for Psychosis (P3). ⁶² Torrelavega and Oviedo (Spain). www.p3-info.es	To assess the effectiveness of an intervention program for the prevention of psychosis, in the medium and long term. Research and intervention program has three stages: 1) the assessment of high risk personality traits; 2) the implementation of combined psychological and, where necessary, pharmacological therapies, and 3) a three-year post-treatment follow-up of cases with repeated measures.	<i>Design:</i> Prospective intervention and longitudinal study. <i>Sample:</i> Patients between 16-30 ages according to the CAARMS criteria. Participants are sequentially assigned to two groups: experimental group and control group.	Clinical protocol includes low-dose atypical antipsychotic drugs, CBT and psychoeducation with patients and relatives after the FEP. Controlled group received no intervention.	The detection of people at high risk of transition to psychosis is possible, and an early intervention in prodromal stages of the disorder produce great impact on the clinical symptomatology, the rate of transition to psychosis, and the recovery course.
Early Assessment Service for Young People with Psychosis (EASY). ⁶³ Hong Kong, www.3.ha.org.hk/easy/eng/service.html	To raise public awareness, to create an easily accessible channel for service and to provide phase-specific intervention.	<i>Design:</i> Randomized controlled trial and longitudinal study. <i>Sample:</i> Young people aged 15-25 years with psychotic symptoms.	Psychosocial intervention provided by case management, intensive medical follow-up, enhanced rehabilitation services, intervention for secondary morbidity and CBT for drug resistant psychotic symptoms.	An average of over 600 patients enter the program for intensive treatment each year. Preliminary data suggest that early intervention in Hong Kong has been effective in improving the outcome of early psychosis.

led by Alanen et al.⁷⁷ in Finland, which has created a need-adapted treatment approach, considering in each case both individual and interactional factors. They combine different forms of treatment in a flexible, individually designed intervention in order to take into account the needs of both patients and families, using psychoeducational principles in combination with medication, family intervention techniques, and individual psychotherapy.

Following this example, the Sant Pere Claver-Early Psychosis Program (SPC-EPP), currently being developed in Barcelona, is an integrative model and need-adapted treatment always planned individually and taking into account the therapeutic needs of both patients and the people closest to them, based directly on the work of Alanen et al.⁷⁷ This clinical program is attached to an early psychosis research project conducted by the Universitat Autònoma de Barcelona (UAB), which is presented in Domínguez et al.

FINAL REMARKS

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, with the consequent reorganization of care services and health policies.⁷⁵

Increasing evidence suggests that it is possible both to identify individuals who may be at risk of developing psychosis, and subsequently reduce or delay the transition to psychosis, as well as to ameliorate the severity of non-psychotic symptoms and distress. Nevertheless, and despite this encouraging work and findings, more research is needed to provide relevant answers to the unsolved questions regarding the usefulness and efficacy of early intervention in psychosis.⁷⁰

Although recently published reviews on interventions in ARMS concluded that the effects of interventions are currently indecisive,⁷¹ and even though the cost-effectiveness of early intervention is still scarce, recent evidence suggests that early intervention in psychosis may not only improve the clinical course of psychotic disorders, but also make such disorders less costly to treat compared with more traditional forms of care.⁷⁸ However, more research on the efficacy of early intervention is needed to demonstrate the extent to which the benefits persist in the longer term.⁷⁹

Bringing treatment more rapidly to a person who has become psychotic is in itself enough to justify early detection efforts.⁸⁰ However, the highlighted ethical issues need to be considered seriously when working with young people thought to be at risk of developing psychosis, and further work is therefore needed to investigate and improve intervention options. Finally, despite the emphasis on prevention, it is also important not to forget those patients

with a poorer prognosis in need of a long and continuous attention.

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Artículo sin conflicto de intereses