The need-adapted integrated treatment in Sant Pere Claver-Early Psychosis Program (SPC-EPP) in Barcelona, Spain

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SUMMARY
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. 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.

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 currently emerging. 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.

The early psychosis programs developed worldwide have a number of common elements and goals: a) early detection of new cases, b) reducing the duration of untreated psychosis (DUP), and c) providing better and continued treatment during the «critical period» of the early years of the disorder.

Moreover, family interventions usually offer psychoeducation and/or individual and group family therapy, in conjunction with 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.

The current challenges 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; and 3. treatment packages need to be individually tailored to specific needs rather than applied homogenously across early psychosis patients.

One example of the integration of all these aspects is the «need-adapted integrated treatment» developed by Alanen et al. in Finland, which combines different forms of treatment in a flexible, individually designed intervention in order to take into account the needs of both patients and families.

Following the experience and work of Alanen et al., an Early Psychosis Program (EPP) currently is being developed in the Mental Health Services of Sant Pere Claver in Barcelona, addressed to young people between 14 and 35 years with at risk mental states (ARMS), first episode psychosis (FEP), and post-crisis stages of psychosis.

All cases included in the program are derived from various community resources (primary health care, schools, emergency services, and inpatient units for acute patients) and assessed exhaustively by the team to define the treatment plan for each case. The treatment modalities offered by the EPP are: individual and group therapy, unfamiliar and multifamiliar psychotherapy, psychoeducation and pharmacotherapy in those cases where necessary. Furthermore, there is an intensive community support for those patients who have difficulties engaging with mental health services. During the EPP all patients are monitored through weekly visits with their psychiatrist, psychologist, social worker and/or nursing staff.

The aim of this paper is to present and describe the integrated need-adapted treatment approach of the early psychosis program currently being developed in a specialized center in Barcelona (Spain).

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 costes económicos, una comorbilidad considerable y sufrimiento tanto para los pacientes como para sus familias. A pesar de que el tratamiento farmacológico y psicosocial ha ayudado a aliviar los síntomas y mejorar la calidad de vida, en
INTRODUCTION

After decades of research, and despite advances in pharmacological and psychotherapeutic interventions, schizophrenia-spectrum disorders are still among the most debilitating disorders in medicine. Most patients suffer chronic impairment in all life domains, which has huge personal, 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. Early detection and intervention programs have been initiated worldwide, beginning with Yung et al. in Australia and then moving to the United States and Europe shortly thereafter.

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, which will steadily add to the evidence regarding the value of early intervention, are currently emerging. Finally, several influential international figures and research groups have developed and cooperated in disseminating a more optimistic set of ideas concerning early intervention in psychosis.

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 "at risk mental state (ARMS)" phase; 2. onset or first episode psychosis (FEP); 3. post-psychosis phase, also known as "critical period", covering the period following recovery from FEP to up to five years subsequently.

Most groups working with the ultra high risk (UHR) population have attempted to engage patients in various psychological interventions using a recovery model of treatment. These interventions usually include case management, individual therapy, psychoeducation,
cognitive-behavioral therapy (CBT), multifamily groups, and also give support for education and employment. Family interventions usually focus on individual and group work, psychoeducation and the development of coping strategies to help reduce distress and burden. However, specific 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.

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. One example is the work of the group leaded by Alanen et al. 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.

Based directly on the work of Alanen et al., there is an early intervention program currently being developed in a specialized center in Barcelona, which is presented below.

The Sant Pere Claver – Early Psychosis Program (SPC-EPP)

The Mental Health and Addictions Plan of the Department of Mental Health from the Catalanian Government promotes specific programs in order to serve young people with early psychotic disorders (PAE-TPI-Programas de Atención Específica a los jóvenes con Trastornos Psicóticos Incipientes). The Early psychosis programs have been implemented in a few settings in Catalonia. One of these programs is set at the Mental Health Centers of the Sant Pere Claver sanitary foundation (SPC), with a catchment area comprising two large districts of Barcelona, where 44,500 inhabitants are within the at-risk age group (14-35 years).

The SPC is composed of two Communitary Mental Health Centers for Adults (CSMA-Sants and CSMA-Montjuïc), one for adolescents and children (CSMIJ), and one Day Hospital (HD) for adolescents.

General aims of SPC-EPP. At the start of the SPC-EPP, Alanen et al. provided training to the clinicians directly involved in the program. Consistent with this formative experience and following the pioneering work of Yung et al. and based on the recommendations of a clinical guide for early psychosis of the Spanish and Catalanian governments, the main aims of SPC-EPP are:

1. To identify within a short period of time people at high risk for developing psychosis and people with FEP.
2. To encourage ARMS and FEP individuals to seek and adhere to earlier effective help.
3. If possible, to provide psychological, pharmacological and psychosocial treatment prior to the onset of the frank psychotic symptoms, in order to prevent the onset of the full psychotic disorder and to minimize DUP, associated morbidity, stigma, and possible brain damage.
4. To intensify treatment of the FEP to a) optimize recovery; b) prevent relapse, social exclusion, and vocational disruption; c) reduce co-morbidity such as depression, substance abuse, and suicide.
5. To improve symptomatic and functional outcomes and reduce secondary morbidity to improve the quality of life of both families and patients.
6. To promote sensitization of General Practitioners (GPs) and coordination with different health services, as well as with scholar and social resources.

METHOD

Inclusion and exclusion criteria

SPC-EPP inclusion and exclusion criteria are based on the standard criteria used in programs worldwide (table 1).

Paths to care and populations

As shown in figure 1, patients are referred to the program from a variety of communitary resources: primary health care (GPs), school psychologists, emergency services, and inpatient units for acute patients.

In order to increase the detection of potential ARMS cases, the SPC-EPP psychologists and psychiatrists visit weekly primary health care units. Also, nurses make regular visits to inpatient units of acute patients to detect FEP and promote their adherence to the program.

As shown in figure 1, after the first request for assistance, there is a weekly team meeting where it is evaluated whether the new cases fulfill the criteria for entering the program and assessment is carried out to determine the appropriate treatment.

Assessment procedures

As it can be seen in figure 1, there are different types of assessments with the goal of exploring the case in depth and defining the type of work to be done in each particular case (as outlined in tables 2 and 3).

a) Psychiatric diagnosis: Initial clinical interview, detailed history, diagnosis and, if necessary, drug prescription (minimum dose) as established by the Clinical Guide of the Spanish Government. Subsequently, the case is reported to the clinicians specifically involved in SPC-EPP for the general team meeting discussion.
b) Family assessment: There are at least four family interviews in which all family members are invited to attend with the patient. These interviews are aimed at analyzing the family status and yield an indication of treatment for both the patient and the family. Before the last interview, the case is discussed in the team meeting to tailor the treatment plan. There is always a feedback meeting with the family and the patient to inform them about the treatment plan, usually done after the case has been monitored and discussed in the team weekly meeting.

c) Social assessment: Since the first contact, the social worker follows the case, initially weekly and then fortnightly, in order to help the patient to not disengage from studies or work.

d) Nursing assessment: For FEP, the nurse makes an initial contact with the patient before s/he is discharged from acute units (if applicable), and is also involved in following him/her up in the hospital if there is a relapse. Since the first contact with the service, the nurse performs an initial assessment of the patient’s health and establishes an action plan including goals to achieve (general health advice to improve quality of life as personal hygiene, nutrition, personal care, etc.) always in accordance with the patient. Nurses are also in charge of making blood extraction for health and genetics analyses.

e) Research assessment: It is undertaken by the research team independently of the treatment team. All patients are assessed prospectively: at baseline (at the moment of inclusion in the program), and at 6 and 12 months with standardized measures to assess changes across time on clinical, functional, psychological and neurocognitive factors. These results are always communicated to the professional responsible for each case in order to contribute in the design of the intervention.

### Treatment modalities

Following the work of Alanen et al.,

- A need-adapted treatment of psychodynamic orientation, the psychotherapeutic approach is based on the idea of flexibility in accordance with the needs. Because of the heterogeneous nature of schizophrenic psychoses, the treatment of these patients must always be planned individually and on case-specific premises, taking into account the therapeutic needs of both the patients and the people closest to them.

The psychodynamic approach used in SPC-EPP places emphasis on increasing self-knowledge and establishing a sense of psychotic experiences in the world within the person. In addition, the main focus of the treatment process is the relationship between people and their environment.

The main principles of the need-adapted approach are:

1. **The therapeutic activities are planned and carried out flexibly and individually in each case.** This principle also implies that unnecessary treatment should be avoided.

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**Table 1. Inclusion and exclusion criteria of At Risk Mental State (ARMS) and First-Episode Psychosis patients (FEP)**

<table>
<thead>
<tr>
<th>At Risk Mental State (ARMS)</th>
<th>First-episode psychosis (FEP)</th>
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<tbody>
<tr>
<td><strong>Inclusion criteria</strong></td>
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<td>• Age between 14 and 35 years.</td>
<td>Age between 14 and 40 years.</td>
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| • Meets criteria for one or more of the following groups based on Comprehensive Assessment of At Risk Mental State (CAARMS) and Schizophrenia Proneness Instrument-Adult version (SPI-A)
  o Attenuated Psychotic Symptoms Group (APS): subthreshold, attenuated positive psychotic symptoms present during the past year;
  o Brief Limited Intermittent Psychotic Symptoms Group (BLIPS): episodes of frank psychotic symptoms that have not lasted longer than a week and have spontaneously abated;
  o Trait and State Risk Factor Group: family history of psychosis or schizotypal personality disorder with a significant decrease in functioning during the previous year. | • Diagnosis of a first episode psychosis (FEP) according to DSM-IV.
• People who are in a psychotic post-crisis period, or the time span of five years after first episode (with a maximum of three crises, since above this number is no longer considered incipient psychosis). |
| • No current substance dependence | • No current substance dependence. |
| • IQ above 75 | • IQ above 75. |
| **Exclusion criteria**       |                             |
| • No evidence of organically based psychosis, | • Previous history of antipsychotic treatment (without including the current one) |
| • Does not meet criteria for psychosis currently, | |
| • Previous history of antipsychotic treatment (more than a week). | |

**Abbreviations:** DSM-IV: Diagnostic and Statistical Manual of Mental Disorders fourth edition; IQ: Intelligence Quotient.
Figure 1. SPC-EPP protocol, paths to care, type of intervention and treated population.
2. Examination and treatment are dominated by a psychotherapeutic attitude, to understand what has happened and is happening to the patients and their relatives.

3. The different therapeutic activities should support and not impair each other. For that, the promotion of cooperation and division of tasks between members of the different staff categories and workers of the different units of a given catchment area is especially important.

4. Quality of the process of therapy is clearly perceived through the continuous assessment during the course and outcome of the treatment, which involves the possibility of modifying the therapeutic plans.

5. The Outreach Assertive Community Treatment is a key part of the SPC-EPP. It is focused on improving the therapeutic alliance and offering treatment in the community, giving intensive support and follow-up through home visits to all patients who have special difficulties in engaging with mental health service.

6. Supervisory activities should become an inseparable part of the therapeutic work.

As shown in figure 1, patients of SPC-EPP can be treated with individual or group psychotherapy and treatment is also always offered to relatives. The specific modality varies according to the conclusions reached after the assessment and team consensus. We describe in tables 2 and 3 the specific features and aims of each type of treatment possibility for both patients (ARMS and FEP) and families. Family psychotherapy, specially multifamily groups, is based on the principles and work of Fulkes and Anthony, Bion, García Badaracco and Räkköläinen.

In addition to the therapeutic modalities defined, all patients are visited and followed-up individually by the referent psychiatrist, psychologist, social worker, and nurse at least during the entire program (5 years). Also, the Outreach Assertive Community Treatment gives an intensive support and follow-up through home visits to all patients who have special difficulties in engaging with mental health service, in order to improve their therapeutic alliance and offer them treatment in the community.

**Pharmacotherapy**

In ARMS patients, pharmacological treatment is prescribed only if necessary, for example, when there is a rapid deterioration, when there is a risk of suicide or a risk of aggression to others or to patients themselves.

In the case of FEP, it is recommended to prescribe the minimum antipsychotic dose that is needed to bring the patient’s contact and communication abilities to a level that is optimal for the situation. In practice, this means notably

<table>
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<tr>
<th>Arms and fep patient</th>
<th>Group psychotherapy</th>
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<tr>
<td><strong>AIMS</strong></td>
<td><strong>AIMS</strong></td>
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<tr>
<td>1. To promote therapeutic alliance</td>
<td>1. To improve communication through contact with group members</td>
</tr>
<tr>
<td>2. To improve the capacity of insight</td>
<td>2. To improve insight and adherence to treatment, both pharmacological and psychological</td>
</tr>
<tr>
<td>3. To recognize the prodrome and identify high stress situations to prevent future decompensation</td>
<td>3. To promote awareness by sharing similar experiences with other patients, which helps them feel more accompanied in the recovery process</td>
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<tr>
<td>4. To understand psychiatric symptoms and integrate them with the subject’s experience</td>
<td>4. To find a sense of psychotic experiences in the world within the person</td>
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<tr>
<td>5. To encourage her/his emotional expression and to improve emotional management</td>
<td>5. To promote the communication of his/her emotions and feelings about all his social and family relationships</td>
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<tr>
<td>6. To work with all the process that happened in the group because they serve to tolerate his/her own daily relationships</td>
<td>6. To work with all the process that happened in the group because they serve to tolerate his/her own daily relationships</td>
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**Indications**

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<th>Indications</th>
<th>Contra-indications</th>
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<td>Patients who show some initial insight into the connection between their symptoms and their life situation, as well as patients with some ability to recognize their difficulties, and have motivation to address them and the capacity for commitment and maintenance of the therapeutic alliance.</td>
<td>• Intense paranoid and narcissistic features that prevent the ability to relate.</td>
</tr>
<tr>
<td>• In cases where there is an active consumption of substances, it is considered the need for referral to specialized resources.</td>
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**Frequency**

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<th>Frequency</th>
<th>Arms and fep patient</th>
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<td>45 minutes weekly or fortnightly depending on the characteristics of each patient.</td>
<td>1 hour weekly and duration of over 2-3 years.</td>
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Abbreviations: ARMS: At Risk Mental State; FEP: First Episode Psychosis.
The need-adapted integrated treatment in SPC-EPP

lower doses and shorter periods of medication than is currently customary in treating schizophrenic patients, given that it has been shown that long-term antipsychotic medication with heavy dosage has adverse effects on the psychosocial prognosis of these patients.\(^{14,16,25-27}\)

**Sant Pere Claver Research Project (SPC-RP)**

There is a joint research project between SPC and the Autonomous University of Barcelona (UAB) on the SPC-EPP: The Interaction between Daily-Life Stressors and Subjective Appraisals of Psychotic-Like Symptoms in the Psychosis Prodrome during One Year Follow-up: Ecological and Dynamic Evaluation with the Experience Sampling Methodology and Analysis of Gene-Environment (Stress) Interactions (P.I: N.Barrantes-Vidal), funded by La Fundació La Marató TV3, a charity foundation focused on scientific research of diseases that currently have no definitive cure.\(^{28}\)

This project prospectively examines dynamic relations between daily-life stressors and psychotic-like symptoms in ARMS and FEP individuals, and will delineate disorder and resilience trajectories over one year using Experience Sampling Methodology (ESM). ESM is an intensive research method that can be used to study emotional reactivity to stress through a structured dialy technique, assessing cognition, affect, symptoms and contextual factors in daily life.\(^{28}\) The participants are assessed on clinical, functional, neurocognitive, and genetic assessments at baseline, 6 months and 1-year follow-up. Preliminary results from this study have been recently presented.\(^{29,31}\)

**FINAL REMARKS**

Our program is designed to meet the special needs of young people in the early stages of psychosis, people recovering from early psychosis and their families. We offer early treatment including both individual and group therapies designed to meet specific needs. Through our family intervention component, families are actively included and involved in the program. Finally, we have an ongoing evaluation of patients’ outcomes; these results will be detailed elsewhere.

The training in early psychosis that has been given to the clinicians facilitated the detection and led to greater inclusion of cases in the program. Thus, the number of cases treated in SPC-EPP has tripled since 2007.

In our experience, the integration of psychodynamic concepts can have a significant contribution to contemporary approaches, especially if different techniques are used as an integrated model that emphasizes the tailoring of treatments according to the patients and family needs.

Regarding the early psychosis intervention, the ethical issues need to be seriously considered. The establishment of first contact with young psychotic patients requires a high level of experience and professionalism, and the task

### Table 3. Description of psychotherapeutic treatments for family and patients

<table>
<thead>
<tr>
<th>Target of therapy</th>
<th>Unifamily group</th>
<th>Multifamily group</th>
<th>Psychoeducation</th>
</tr>
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<tbody>
<tr>
<td><strong>AIMS</strong></td>
<td>1. To clear up the conflicts that interfere in the communication between all family members; 2. To identify possible triggers or risk factors of a possible relapse; 3. To improve treatment compliance.</td>
<td>1. To help families to improve communication between their members; 2. To enable patients and their families to identify early relapse signs and symptoms; 3. To share experiences between the different families and understand the mental functioning of their children.</td>
<td>1. To establish a bond of trust between the family and different professionals; 2. To provide basic information about psychosis and its management; 3. To help the family recognize the impact that the illness process will have in family dynamics; 4. To enable families to identify early relapse signs and symptoms to prevent future crises; 5. To collect and treat the emotions that could difficult the relation between family and patient (guilt, fear, reproach, distress, etc.).</td>
</tr>
</tbody>
</table>

### Indications

- Cases in which the pathology of the family system is very serious and will be interfering with the course the disease.
- All relatives of patients included in SCP-EPP. The group is always active (permanent) and open to everyone, but each participant can attend a maximum of five years, which is the duration of the early intervention program.
- Families considered unstructured or that have severe difficulties to maintain a dialogue between its members.
- It is only applied to FEP and post-crisis psychosis relatives.

### Contra-indications

- None.
- Families considered unstructured or that have severe difficulties to maintain a dialogue between its members.
- None.

**Abbreviations:** ARMS: At Risk Mental States; FEP: First Episode Psychosis; SPC-EPP: Sant Pere Claver-Early Psychosis Program.
of detection and assessment should preferably be performed by a specialized team.\textsuperscript{32}

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REFERENCES