

# **The Prodromal Symptoms of Psychosis: Prevention and Treatment**

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## **INTRODUCTION**

Through this brief essay, I wanted to provide a small overview of the onset of Psychosis, a topic that I find very stimulating and deeply engaging each time I delve into it. It begins with a quick presentation of the illness: its general characteristics, its symptoms, and a brief paragraph on Schizophrenia to delve further into detail.

Subsequently, since the purpose of the writing also involved a statement of some preventive treatment strategies (closely related to the onset care methods), the first practical example was presented: the Program 2000, a Lombard project that emerged in 1999 aimed at the prevention and treatment of patients with First Episode Psychosis and at High Risk.

Early intervention proves to be a strongly characterizing topic of my thesis, as I find it represents a concrete and accessible possibility to prevent and reduce the considerable distress experienced by individuals affected by mental disorders. I then decided to include a chapter on gender differences.

This choice was driven by the fact that the issue of the incidence of disorders on one gender rather than another has never been at the center (nor even at the margins) of my university path; instead, I found it a topic that, although still to be fully substantiated and verified, can offer various points of reflection concerning the type of treatment and prevention that could be implemented depending on the patient's gender, since Help-Seeking strategies also differ.

The thesis concludes with a statement of the treatment strategies proposed by the NICE (National Institute for Health and Care Excellence) Guidelines, both regarding pharmacological therapy (which I tried to describe somehow by focusing on those biological aspects that I imagined could be more salient for this writing) and therapeutic rehabilitation (cognitive-behavioral therapy, CBT). The latter was further explored from a more "practical" point of view: the SMILE Project (Service for Monitoring and Fighting the Onset of mental and psychological suffering in youth) represents the second concrete example of early intervention and prevention, which significantly exemplifies, I hope exhaustively, the practical application of cognitive-behavioral therapy in the field of psychosis prevention and the exceptional results it is capable of achieving.

## **CHAPTER 1**

### **General Introduction to the Concept of Psychosis**

Psychosis is a major mental disorder (or "personality cluster") characterized by significant impacts on the life of the affected individual: clinically significant alterations in perception, thoughts, mood, and behavior are its most common effects (NICE

Guidelines, 2014). More specifically, psychotic symptoms are divided into Positive and Negative.

Positive symptoms include delusions and hallucinations. Delusion refers to an unlikely and most of the time bizarre thought, experienced as egosyntonic by the psychotic but impenetrable and strange to anyone else, reflecting the patient's subjective experience and can have various contents, from threats to persecutions, although religious, scientific, moral, and erotic themes seem to be among the most recurring ones.

Hallucination, on the other hand, is a perception in the absence of a stimulus (sounds, voices, images) equally unshareable with others that greatly influences the subject's daily life to the point of leading them to act accordingly (feelings, attitudes).

As for negative symptoms, they are characterized by emotional impoverishment that can lead to apathy, lack of control, social discomfort, neglect of oneself, unplanned goals, abulia, and anhedonia. All these components can presumably lead the patient to social withdrawal, causing further deterioration due to the chronicization of obsessive and ritualistic behaviors.

A third symptomatic dimension of interest in psychosis is cognitive functioning, which is evidently disorganized, with repercussions on language and reasoning. The NICE Guide to Psychosis (2014) identifies schizophrenia, schizophreniform disorder, schizoaffective disorder, and delusional disorder within the group of psychotic disorders.

### **1.1 The Modes of Onset**

Although no one is exempt from risk, a first psychotic episode usually occurs during adolescence, in subjects who appear agitated and/or depressed, some already partly aware of their profound social and individual distress, which they experience as disabling, others totally unaware (Reed, S, 2008). Many of these are men and still live with their parents (Harris, Brennan, Anderson, 2005; Malla 2005; Mullen, 2005).

Due to their symptoms, the incidence of individuals dropping out of school is very high. Psychosis, in fact, makes it very difficult to establish social ties, and the sense of loneliness and exclusion from the surrounding context only pushes these individuals further into isolation and the experience of depression and hopelessness.

Many of them have a history of previous suicide attempts or suicidal ideation, aggressive behavior, abuse, and substance abuse, although some studies tell us that preventive intervention could be decisive, at least in the case of the desire to end their life, in reducing the risk of retrying. (Malla, Norman, Joobar, 2005; Payne, Malla, Norman, Windell, Brown, 2006).

Reed (2008) argues that adolescents with FEP (First Episode of Psychosis) are more likely to engage in risky behaviors such as substance abuse and unprotected sex (with the related danger of contracting sexually transmitted diseases and unintended

pregnancies) and consume more tobacco. Their vulnerability also makes them more subject to sexual abuse (Mueser & Rosenberg 2003).

The psychological and physical suffering also not only puts them in a condition of extreme pain but also compromises their relationships with family and close people, also due to their difficulty in maintaining social relationships, a condition that worsens just before the outbreak. For parents and carers, the proximity to the patient and their bizarre behavior often proves to be a considerable psychological and emotional burden as well as an economic weight (Chen, Dunn, Miao, 2005; Sanbrook & Harris, 2003).

Moreover, prejudice, social stigma, and fear of mental illness act as deterrents to understanding and immediate action that a psychotic outbreak would require so much so that it is often those closest to the patient who do not want to realize or understand what is happening or mistake some symptoms for the normal course of adolescence (Sanbrook & Harris, 2003). These individuals are also frightened by the aggressive behaviors of the subjects, and the Expressed Emotion (EE) measured in families is characterized by hostility and criticism towards the patient (Patterson, Birchwood, Cochrane, 2005; Raune, Kuipers, Bebbington, 2004).

The reason for this stress is explained by the fact that they often perceive the patient's attitudes as if they control and deliberate, and such a belief only increases negative feelings towards them and reduces empathy. According to the NICE Guide (2014), a first intervention following a psychotic onset should be accessible to everyone, regardless of age and the duration of untreated psychosis of the individual. The patient must be immediately assisted, and if the services cannot promptly intervene in the crisis, a referral must be made so that the patient can receive initial treatment at home. The initial intervention aims to provide pharmacological, psychological, social, occupational, and educational support to the subject.

The literature reports that although the onset of the illness can present in various forms, some "predictors" exist through which a specialist should be able to recognize the possibility of the onset of a psychotic condition, namely:

- Mood changes,
- Social withdrawal,
- Decrease in school performance,
- Obsessive thoughts and ritualistic behaviors.

(The fact that untreated psychosis persists for a long time does not imply any difference compared to earlier treatment regarding the outcome of the first episode). All these factors, highly nonspecific, may not make the understanding of the disorder immediate for family members and non-specialized doctors and delay timely intervention, not to mention how often the time for a correct diagnosis is extended due to various components (Norman, Malla, Verdi, Hassal, Fazekas, 2004).

Some situations that could delay the correct identification of the disorder and the consequent first treatment can be dictated by the subject's individual characteristics, such as their ability or inability to seek help, but also by how promptly health

professionals recognize the symptoms, avoiding confusing an FEP episode with a mood disorder, such as Major Depression, or attributing the symptomatology to substance dependence.

In fact, the first signs of FEP often manifest when the patient is followed only by their general practitioner, who may struggle to identify them, neglecting key factors in recognizing psychosis that could avoid a dangerous situation for the individual and those around them. Such a delay can increase anxiety and anguish levels in the patient and their family members and make the risk of relapse more tangible.

## **1.2 Schizophrenia: Diagnostic Criteria**

Today, it is estimated that one person in 100 develops a schizophrenic personality disorder during their life (NICE Guidelines, 2014). Schizophrenia can be defined through six diagnostic criteria according to the classification agreed upon in the DSM-V (APA, 2013).

### **Criterion A: Characteristic Symptoms**

Two or more of the following symptoms must persist for a month (or less if effectively treated). At least one of these symptoms must be 1), 2), or 3).

1. Delusions;
2. Hallucinations;
3. Disorganized speech (e.g., frequent derailment or incoherence);
4. Grossly disorganized or catatonic behavior;
5. Negative symptoms (i.e., diminished emotional expression or avolition).

### **Criterion B: Social and Occupational Dysfunction**

For a significant portion of the time, social and occupational dysfunction is present (in the case of onset during childhood or adolescence, there is a manifested inability to achieve the expected level of interpersonal, academic, or occupational functioning).

### **Criterion C: Duration of Symptoms**

At least 6 months: The characteristic symptoms of Criterion A (i.e., active phase symptoms) must be met for at least

one month and may include periods of prodromal or residual symptoms (during which only negative symptoms or symptoms of Criterion A but attenuated may be present).

### **Criterion D: Exclusion of Depressive Disorder, Schizoaffective Disorder, and Bipolar Disorder**

Because:

1. There have been no manic or major depressive episodes concurrent with the active phase symptoms, or,
2. If mood alterations have occurred, they have done so for a minor part of the total duration of the active phase or residual periods of the illness.

### **Criterion E: Exclusion of Organic Disorders**

Exclusion of effects due to substance abuse or psychotropic drugs.

#### Criterion F:

In the case of identification of any previous Autism Spectrum Disorders or Childhood-Onset Communication Disorders, the diagnosis of Schizophrenia is proposed only if persistent episodes of delusions and hallucinations (for more than a month), in addition to the required symptoms, are present.

After one year of the illness's duration, if they are not in contradiction with other symptoms, the following specifiers should be used:

- First episode, currently in acute episode (where acute episode means a period in which symptom criteria are met);
- First episode, currently in partial remission (improvement after a previous episode, the criteria are only partially met);
- First episode, currently in complete remission (specific symptoms of the disorder are no longer present);
- Multiple episodes, currently in acute episode (after an episode, a remission, and at least one relapse);
- Multiple episodes, currently in partial remission;
- Multiple episodes, currently in complete remission;
- Continuous (symptoms have remained continuously except for brief periods where they were met but subthreshold);
- Unspecified.

Also specify the presence or absence of Catatonia and the current severity.

Regarding severity, it is estimated through a qualitative evaluation of the primary symptoms of Psychosis, which are measured according to the current severity (the most severe level in the last 7 days on a 5-point scale ranging from 0 – not present – to 4 – present and severe). In any case, the diagnosis of Schizophrenia can be made even without this severity specifier.

Subtypes of Schizophrenia according to DSM V:

1. Paranoid Schizophrenia;
2. Disorganized Schizophrenia;
3. Catatonic Schizophrenia;
4. Undifferentiated Schizophrenia.

### 1.3 Gender Differences during the First Episode of Psychosis and in High-Risk Patients

Various studies have been conducted to investigate which gender suffers from a higher incidence of mental disorders. Today, thanks to epidemiological research and meta-analyses, we know that the incidence rate of schizophrenia-related symptoms is significantly higher in males (mean: 15.0) than in females (mean: 10.0), with a male/female ratio (median value) of 1.4. (McGrath, 2008).

Additionally, men present an earlier onset (during adolescence or early adulthood) as well as an earlier manifestation of symptoms, although a family history (e.g., cases of psychosis) still significantly influences the clinical picture (Angermeyer & Kuhn, 1988; Cascio, 2012). In any case, the development of the disease and its outcome (when in this sense, partial or total remission of symptoms or clinically significant improvement/worsening of the clinical picture is meant) have been shown to be better in women than in men (Addington and Addington, 2008; Grossman, 2006; Hafner & an der Heiden, 1999; and Perkins, 2005), as it appears that estrogens have some effects on dopaminergic activity, modulating the course of the disease and delaying the onset of frank psychosis (Riecher-Rossler, 1994; Seeman & Lang, 1990; Kulkarni, 2012).

Some reservations are dictated by the geographical area of reference, according to which it has been noted that results may vary: in Western countries, for example, the first psychotic episode is significantly anticipated in men rather than in Eastern countries (Angermeyer & Kuhn, 1988; Faraone, 1994; Hafner, 2003; Hambrecht, 1992; Szymanski, 1995), as different environmental factors (determined by the reference geographical areas and naturally different depending on the area) could affect the difference in onset. Cannabis abuse, birth period, prenatal infections and/or complications, and stress, although of slight effect, are context-determined factors that are more associated with the risk of First-Episode Psychosis, especially concerning schizophrenia (Arendt et al., 2008; Gracie, 2007; Mortensen, 1999; Scott, 2007; Tandon, 2008).

These components may influence men more than women, although research in this field is sparse. Males also have higher mortality rates at the end of the first year after onset (Joukamaa, 2001; Heila, 2005).

In any case, the differences between the two sexes primarily concern the age of onset, the severity of symptoms, response to treatment, the course of the disease, and outcome. Regarding High-Risk Patients, the literature reports that since their condition rarely evolves into frank psychosis, gender differences are less evident or even nonexistent, although it is known that data on this are not always reported and that the available samples are very small, partly because more focus has always been on patients with established diseases (Johnstone, 2005; Willhite, 2008; Lemos-Giraldez, 2009; Ziermans, 2011; Rossler, 2012).

Today, the efficiency of psychiatric services has allowed optimization of diagnostic timing and better treatment for at-risk patients, positively affecting their functioning. However, it seems that female patients benefit more from this situation, probably because they are more likely to manifest their symptoms of distress, thus obtaining a reduction in symptoms and a shorter duration of DUP (Duration of Untreated Psychosis).

From a single study conducted in Veneto (Bertani, 2012), it was found that men have an onset of at least 3 years earlier than women and a longer DUP, correlated also with young age. No significant differences were found between genders in the "Positive and Negative Syndrome Scale"; however, men were characterized by a higher premorbid level of functioning and social disability at the onset of the disease but with fewer unmet desires compared to women (Kay, 1987).

In any case, it is preferable to work with FEP patients for this type of investigation. A study conducted parallel to Program 2000 (the first Italian program aimed at the early identification and preventive treatment of mental illnesses) investigating gender differences revealed that among the project participants, 258 users were predominantly male in both the First-Episode Psychosis group (77%) and among High-Risk patients (69%). Two out of three patients had a family history of psychiatric disorders with no gender difference (Cocchi, Lora, Meneghelli, La Greca, Pisano, Cascio, Preti, 2014).

Another finding reported that among First-Episode Psychosis patients, women tended to be discharged later than men (RR= 2.60; 95% C.I.=1.09-6.22)), while among "Ultra High-Risk Patients" (where "High Risk" means the high probability percentage compared to the standard average of developing frank psychosis), female patients more frequently had histories of abuse (RR= 4.64; 1.25-17.2).

Regarding Duration of Untreated Illness patients, no significant differences were found, while in First-Episode Psychosis patients, both the Duration of Untreated Illness and the Duration of Untreated Psychosis were shorter in women than in men. In conclusion, this study deduced that First-Episode Psychosis female patients had shorter Duration of Untreated Illness and Duration of Untreated Psychosis compared to male patients. However, regarding the severity of symptoms and the level of functioning, no significant differences were found. The age of onset is earlier in men (although this consideration cannot be extended to "Ultra High-Risk patients").

Finally, Cocchi and collaborators (2012) emphasize that among the project participants, males with First-Episode Psychosis were younger than women (always with frank psychosis) at the time of joining, while again no significant differences were found among "Ultra High-Risk Patients."

## **CHAPTER 2**

### Early Intervention in Psychosis

#### 2.1 A Practical Example: Program 2000 (1999)

##### With Critical Analysis

From the perspective of early intervention, psychiatrists and psychotherapists are divided according to different lines of thought: some advocate the importance and necessity of highly preventive intervention to prevent the outbreak of psychosis to make hospitalization more effective, reduce the risks of relapse, and prevent the worsening of comorbidity conditions if present (such as depression or substance abuse). Others, however, point out that preventive intervention is an unnecessary and stressful trauma for healthy patients, forced to undergo therapies and take medications, sometimes invasive, without any necessity (Warner, 2005).

Regarding the first line, an exemplary example of preventive mental disorder intervention is certainly Program 2000, which represents an important illustration of the usefulness of psychosis prevention and is particularly significant in this case as it was conducted in Italy, specifically in Lombardy starting in 1999.

The decision to consider Program 2000 as an example of effective preventive intervention in this paper was driven not only by its geographical location (at least interesting since Italy, unfortunately, often struggles to stay at the forefront of global scientific research) but also by the fact that it exemplarily describes how such an intervention can be effectively structured, presenting strengths and weaknesses.

This project, which emerged after two years of preliminary studies and organization, took place within a CMHC (Community Mental Health Center) in Milan, dedicated exclusively to patients at the onset or showing prodromal symptoms of psychosis, aged 17 to 30 years. The team involved comprised various specialized professionals: psychiatrists, psychologists, nurses, and educators worked in rotating shifts (many of whom were also part-time), all focused solely on patient care.

The eligibility criteria were age, which had to be between 17 and 30 years, and not having had any previous contact with other local mental health centers due to an FEP (with a duration of untreated psychosis of less than 24 months) nor being considered “High-Risk Patients.” All eligible patients received a multidimensional assessment developed through assessment tools:

1. A preliminary form with questions about the subject's social, occupational, and demographic condition (administered only at the start);
2. The Early Recognition Inventory Retrospective Assessment of Symptoms (ERIRAOS), to select patients needing a more thorough assessment, comprising 17 items and administered every 6 months;
3. The Health of the Nation Outcome Scale (HoNOS), to assess social functioning conditions in the two weeks preceding the project's start through 12 items (every 6 months);
4. The 24-Item Brief Psychiatric Rating Scale (BPRS) to assess general pathology (every 6 months);
5. The Cognitive Behavioural Assessment 2.0 (CBA) 10 self-report scales for detecting personality traits, somatization, anxiety, depression, and neurotic symptoms (every 6 months);
6. The Camberwell Family Interview (CFI), a semi-structured interview investigating the family climate (once a year);
7. The Disability Assessment Schedule (DAS), 24 items used to measure social skills (once a year);
8. The Global Assessment of Functioning (GAF), a numerical scale (0 to 100) assessing psychological, social, and occupational functions in a hypothetical mental health/illness continuum (once a year);
9. A form to evaluate user satisfaction (once a year);
10. An additional set of tests (once a year).



Excluded from the project were patients with an already diagnosed psychosis and those with a substance abuse disorder (they accepted those who used substances without addiction). In contrast, those with prodromal symptoms such as thought alteration, reduced attention and concentration, anxiety, depression, and suspicion associated with acute distress and social function impairment (the symptomatology related to FEP) were considered eligible.

Further exclusion criteria applied to high-risk patients with a previous diagnosis of schizophrenia or affective disorders. For all accepted users, a personalized treatment was devised based on the initial test results, considering their needs and necessities, including individual or group psychotherapy sessions, medical visits, family support activities, educational and recreational activities, and various group social activities (language courses, computer courses, empowerment, and music groups) periodically reviewed and discussed by the organizational team.

Initially, 527 subjects underwent the initial assessment process; 258 were actual patients who participated in Program 2000 in 1999, including 152 with a first psychotic episode and 106 at high risk. Other data show that approximately 40% already received psychological treatment before being referred to the service, 22% admitted to using psychotropic drugs and substances (mostly cannabis, with some cases of cocaine and ecstasy), and most suffered from high levels of anxiety, depressed mood, compromised social skills, and general functioning deterioration.

Apart from the pharmacological treatment each patient had to follow, it was reported that 90% of users followed individual cognitive-behavioral therapy and about half also participated in group sessions. The treatment lasted five years, with about 90% of subjects satisfied at its end. In March 2008, 29 FEP patients completed the treatment: 8 showed total remission, 15 significant improvements (especially regarding schizophrenic symptoms), and 6 were still severely symptomatic.

Among the "Ultra High-Risk Patients," of the 19 who completed the treatment, 2 had total remission, 10 significant improvement, and 7 were still severely symptomatic. Before the end of the first year of treatment, 5 FEP patients needed hospitalization, as did 2 high-risk patients. In both groups, however, the treatment alleviated the symptomatology: a 6-month follow-up conducted on FEP and high-risk subjects showed a noticeable reduction in symptom severity.

The Program 2000 has been ongoing for several years now. The results achieved clearly suggest that a preventive intervention of this type has benefited many individuals whose breakdown was likely avoided thanks to this kind of care. However, for some professionals in the field, this type of therapy does not seem to be the best solution. First of all, the fact that untreated psychosis is associated with a better outcome is taken for granted, since 50% of "Untreated Psychosis" goes into spontaneous remission, meaning that the results obtained do not depend on the duration of the "Duration of Untreated Psychosis" but rather on the fact that brief onset almost always leads to symptom remission (Drake, 2000).

Moreover, the early intervention promoters, more than two centuries ago, were doctors and directors of asylums aiming to encourage institutionalization in wards and justify the low recovery rates of their institutions (Parry-Jones, 1972; Scull, 1979). The main risk of this treatment is dispensing more aggressive and invasive pharmacological and psychotherapeutic care to patients who would have had a favorable outcome regardless, as literature reports that in highly developed countries, within the spectrum of schizophrenic disorders (Schizophrenia-like conditions, Warner, 2005), symptomatic remission occurs in 50% of cases (Warner, 2004; Shepherd, Watt, Falloon, 1989). These individuals not only risk taking unnecessary drugs but are also labeled and subjected to the painful process of psychiatric patients without a real need.

Regarding McGorry's work (2000), a renowned supporter and advocate of early intervention at his P.A.C.E (Personal Assistance and Crisis Evaluation) clinic in Melbourne, Richard Warner, Medical Director of the Mental Health Center of Boulder County in Colorado, posits a hypothesis about a pre-disease identification and treatment work conducted at the aforementioned clinic. During this, 31 "Ultra High-Risk Patients" were subjected to preventive pharmacological and psychotherapeutic care, but only 3 developed psychosis after 6 months. This is a good outcome, Warner says, but some objections arise spontaneously, such as:

- 3 patients took risperidone without any benefit,
- 21 patients not only took risperidone unnecessarily but were also labeled as high risk for schizophrenia due to a wrong diagnosis.

Additionally, he wonders how long the patients who did not develop psychosis would have had to continue taking medication. Furthermore, even within the NICE Guide to Psychosis, it is highly discouraged to prescribe antipsychotics to patients at risk of breakdown but who do not present with frank psychosis.

Bentall and Morrison (2002) emphasize that cognitive psychotherapy has always been a useful and more ethical tool for high-risk patients, who, in any case, can only benefit from it. Warner (2005) reiterates, however, that the potential negative impact of these false positives and labels is overlooked, and proposes promoting integrated therapy systems within the community, in continuity with the acute therapy setting, and adequately preparing people with psychosis for work and social activities.

### **Strategies for Treating First-Episode Psychosis - NICE (National Institute of Clinical Excellence) Guidelines, 2014**

#### Primary Care

At the onset of a psychotic episode, do not prescribe any antipsychotic medication before consulting a psychiatrist.

#### Assessment and Care Planning

In secondary interventions, a multidisciplinary assessment is required, provided by a team of psychiatrists, psychologists, or professionals experienced in treating psychotic and schizophrenic patients. The assessment should refer to the following domains:

1. Psychiatric (mental disorders, risk of self-harm or harm to others, alcohol and/or substance abuse);
2. Medical (including medical history and physical condition to identify the illness and the prescription of antipsychotic medication);
3. Physical (weight, tobacco consumption, diet, physical and sexual activity);
4. Psychological and psychosocial (social networks, significant relationships, possible history of trauma);
5. Developmental (social, cognitive, and motor function abilities and development, including pre-existing neurological conditions);
6. Social (occupation, cultural background, leisure and

- recreational activities, responsibilities for children or as a significant figure);
7. Occupational and educational (school education, any pursued studies, daily activities);
  8. Quality of life;
  9. Economic status.

It is important to:

- Consider the possible presence of post-traumatic stress disorder and other trauma reactions, as individuals developing psychosis often have histories of abuse or traumatic experiences associated with the onset of psychosis itself;
- Constantly monitor coexisting conditions such as anxiety, depression, and substance abuse, especially at the onset;
- Write a care plan in collaboration with the user as soon as possible, following the described assessment and based on psychiatric and psychological formulation;
- For patients unable to carry out school, social, and work activities, think of alternative educational or occupational activities considering their needs and individual abilities.

### Treatment Options

For patients with FEP (First-Episode Psychosis), it is possible to prescribe:

- pharmacological treatment;
- psychological intervention (family intervention and cognitive-behavioral therapy for the patient);

It may happen that the patient decides to pursue psychological therapy without pharmacological support. In this case, it is recommended to inform the patient of the superior efficacy of therapy if accompanied by a pharmacological prescription. If they still wish to proceed without medication, offer cognitive-behavioral therapy and family support intervention and agree on a time limit (1 month or less) at the end of which the treatment will be reviewed. Furthermore, continue to regularly monitor symptoms, stress levels, impairment, and functioning level.

### Pharmacological Treatment

The initiation and modalities of this type of therapy should be agreed upon by the doctor and the user together, with the possible consideration of the opinion of a relative or a significant figure for the patient if they wish. It is necessary to discuss with the user all the

benefits of pharmacological therapy but also to inform them of possible side effects, such as:

- Metabolic (weight gain, diabetes);
- Extrapyramidal (akathisia, dystonia, dyskinesia);
- Cardiovascular (including QT interval prolongation);
- Hormonal (including increased plasma prolactin);
- Others (unpleasant experiences for the subject).

Before prescribing any type of antipsychotic, verify the patient's health conditions in terms of weight, waist circumference, heartbeat, and blood pressure, glucose deficiency in the blood, lipid levels in the blood, and prolactin levels; check for any motor disorders and inquire about the subject's diet and any physical activity performed. If necessary, prescribe an electrocardiogram (ECG) before starting the therapy.

Finally, remember that pharmacological therapy must be a clear and defined therapeutic process in all its facets, so:

- Discuss and agree on the side effects of the therapy that could be too burdensome for the patient to tolerate;
- Remember the usage modalities, the benefits of the treatment, and the estimated timeline for symptomatic remission and the appearance of some side effects;
- At the beginning of the treatment, prescribe a minimum dose and slowly increase it, keeping the British National Formulary (BNF) and the Supplementary Protection Certificate (SPC) as reference points, otherwise justify why these two reference points were not considered;
- Justify the possible continuation, modification, and interruption of the treatment, explaining the effects of such a choice;
- Continue therapy at the optimal dosage for 4-6 weeks [2009; amended 2014].

### Rehabilitation Therapy

Cognitive-behavioral therapy (CBT) should be conducted individually for at least 16 sessions. Furthermore, the treatment should be planned so that:

- Patients can establish links between thoughts, feelings, actions, and their symptoms (present or past), as well as their level of functioning;
- There is a reassessment of perception, beliefs, and arguments related to the individual's symptoms.

Remember to monitor the patient's thoughts, feelings, and behaviors with respect and care regarding the patient's symptoms. Be able to propose an alternative care plan if needed (NICE Guidelines, 2014).

Since the part related to psychotherapeutic therapy is certainly the most relevant to this paper, it is interesting to see its practical application through another example.

### 2.2 The SMILE Project

After Program 2000, the SMILE Project (Service for Early Monitoring and Intervention to Fight Onset) represents an interesting example of how, through cognitive-behavioral

interventions (CBT) and social skills training, depressive, anxious, or negative symptoms can be alleviated, and functional deterioration and its consequences during the prodromal (pre-psychotic) period can be prevented to delay the onset (Diener, Lucas, Oishi, 2002).

Cognitive-behavioral therapy has been shown to favorably influence the course of the disease and, in combination with pharmacological treatment, has significant clinical efficacy in the pre-psychotic phase, as suggested by the NICE guidelines.

This project, which emerged in 2006 within the Mental Health Department of L'Aquila, aimed to create a service specifically oriented towards the early identification of psychological symptoms of mental illnesses in young people, identifying those at risk and directing them towards possible treatment.

The main objectives were:

- The evaluation, recognition, and treatment of mental disorders in young people;
- Preventing psychological distress and mental illnesses;
- Ensuring continuity of care throughout the disease course;
- Identifying and treating early symptoms.

The criteria used for differential diagnosis were typical prodromal symptoms, neuropsychological deficits (Wagner, Frommann, Pukrop, 2005), and the characteristics of the disease course.

The SMILE Project staff included two psychiatrists, psychiatric training physicians, a child neuropsychiatrist, a neuropsychologist, and a psychiatric rehabilitation technician. Consultation was also available from a pedagogue and a pediatrician.

It is important to highlight the close collaboration between the service's medical staff and the patients' family doctors since, contrary to what one might think, this type of medical alliance is rarely put into practice. Its implementation, however, successfully ensures continuity of care.

During the first year of SMILE, the service opened twice a week for first visits and twice for integrated care. The admission criterion consisted of the presence of prodromal symptomatology and the request for help from users (thus acknowledging distress) aged between 16 and 30 years.

Clinical symptoms were identified using diagnostic tools such as self-administered or telephone interviews, and the treatment was planned based on subsequent categorization of user problems into five macro-areas comprising psychological distress, anxiety, SMR (At-Risk Mental State), mood, and psychosis.

The interventions used were of three types: cognitive-behavioral therapy (CBT), integrated psychosocial therapy (TPI), and pharmacological therapy (TF). In the context of cognitive-behavioral therapy and psychosocial therapy, the intervention methods used were two: outpatient treatment and day hospital treatment (focused not on needs like outpatient

but on the illness and thus experienced as more intensive); practically, problem-solving training, cognitive/emotional training, social skills training, psychoeducational training, early crisis signs training, peer education group, and self-help group interventions were carried out.

The results were considered through the objective comparison of treatment efficacy between the year of the SMILE project's birth (2006-2007) and the year preceding its implementation (2005-2006). Another objective criterion used as a positive indicator was the workload data of the operators.

## Results

Before considering the results obtained from the Project, let us specify some technical data based on service comparison over the years:

- The year before SMILE began (May 2005-May 2006 = Y1): 139 subjects;
- The first year of the SMILE Project (May 2006-May 2007 = Y2): 216 subjects (127 females and 89 males) from various services.

It can be observed that there was a 64% increase in users. The average age of Y2 subjects was 21.8 years (5.7). Among Y2 patients, 174 were seen multiple times, totaling 685 interventions. The most frequently recorded symptoms at admission were anxiety, irritability, depressed mood, sleep disturbances, social withdrawal, suspicion, and impaired occupational/social functioning, which doctors associated with prodromal or pre-morbid symptoms.

In any case, it is reported that 35% of patients suffered from severe mental disorders. A delay between the onset of the disease and the first treatment was found to range from 7 years for social phobia to 6 months, 6 and a half months for mood disorders (possibly due to the easier accessibility of information regarding them).

A significant improvement was noted in treating anxiety, irritability, depressed mood, suspicion, sleep disturbances, social withdrawal, and impaired occupational and school functioning. Conversely, eating disorders, school-work withdrawal, and attention deficits were more challenging to treat (Hafner, Maurer, 2006).

What can be deduced from these considerations about this initiative? First of all, it appears important to prepare a qualified team in recognizing early-stage mental illnesses working in psychiatric wards, as specific competence associated with good use of both cognitive-behavioral therapy and pharmacological therapy allows good control of major symptoms.

The most frequently recorded symptoms were anxiety, irritability, depressed mood, sleep disturbances, social withdrawal, suspicion, and impaired occupational/school functioning. This information is particularly important because treating mental illness in young people is a topic slowly gaining awareness in Italy. An information campaign is underway to improve doctors' attitudes and knowledge about prescribing psychotropic drugs in young people.

However, it must be emphasized that most of these young people do not receive the type of psychotherapeutic treatment most suited to their needs (Morosini, Gigantesco, Mirabella, Picardi, 2004).

The SMILE Project, within this overview, should be positioned as an opportunity to enhance the knowledge of doctors in psychiatric training regarding recognizing and treating prodromal and pre-morbid symptoms since methods aimed

at detecting these signs are lacking during the pre-psychotic period and that many young high-risk psychosis patients are still not treated.

A step in this direction could be taken by expanding the sample of treated patients, focusing also on a broad quota of early-stage patients (Phillips, McGorry, Yung, McGlashan, Cornblatt, Klosterkotter, 2005), or by using screening tools within specialist services to identify at-risk patients who can then undergo more in-depth evaluation.

In conclusion, the SMILE Project appears interesting and innovative from various perspectives: easy access to treatment, the preparation of a highly qualified team, and raising awareness of a delicate segment of the psychiatric population (often neglected) make it valid from every point of view. However, the factor that should make it even more interesting to those attracted by such initiatives, as its creators are keen to specify, is its easy replicability, as they highlight its transferability to all general psychiatric departments and, especially, university clinics (Pollice, Di Giovanbattista, Ustorio, Tomassini, Di Pucchio, Mazza, Di Michele, Roncone, Casacchia, 2007).

## **CONCLUSION**

Through this essay, I attempted to provide a small overview of such a delicate and, at the same time, highly discussed topic: the First Episode Psychosis. I hope I managed to underline the importance in this field not only of the proven effectiveness of preventive treatment (to reduce its incidence) but also of the competence and sensitivity needed by those who wish to work in this area (as highlighted in the paragraph concerning the SMILE Project).

As it is easy to deduce, I focused on a care strategy based on Cognitive-Behavioral Rehabilitation Therapy (CBT), trying, I hope, to highlight this type of approach, also and especially, as a preventive care model through some practical examples. Both Program 2000 (1999) and the SMILE Project (2002) have indeed proven its effectiveness and validity in care and prevention.

The vastness of the topic proved to be a double-edged sword: on the one hand, it made the writing of this brief paper stimulating and engaging; on the other hand, it sometimes risked being dispersive or, conversely, ultra-specific, for an inexperienced student like me. In this sense, the NICE Guidelines have proved to be an invaluable tool, a sort of "compass" to navigate the vast sea of information.

To conclude, and this time for real, my thesis is a composition concerning the First Episode of Psychosis, analyzed from the perspective of preventive treatment (with examples) and a proven effective care strategy (NICE Guidelines, 2014); I hope to have been as clear and, in my small way, exhaustive as possible.



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