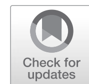

18 Psychosis in Older Adults

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Abstract

There is an increase of the prevalence of psychotic symptoms in older adults. The presence at this period of life of the highest comorbidity rate, the changes of the central nervous system with ageing, and the particular high frequency of life stressors during this period of life may all explain this. Psychotic symptoms are present in an important number of medical and psychiatric conditions and they make part of psychotic disorders in late life too. The same classification of disorders with psychotic symptoms in adults may be used for older adults. Primary psychotic symptoms exist in persistent psychotic disorders (schizophrenia, delusional disorder, and schizoaffective disorder), acute psychotic disorder, and personality disorders (paranoid, schizoid, and schizotypal personality disorders). Secondary psychotic symptoms include major and minor neurocognitive disorders, delirium, organic mental disorders, disorders due to psychoactive substance use, bipolar disorders, and depressive episode. Somatic disorders, comorbidities and iatrogenic causes are included at this cluster. Assessment and management of psychosis in older adults at primary care require an organization of the mental health-care system. The management of psychosis in older adults implies the proper use of multidisciplinary therapeutic interventions: pharmacotherapy and psychological, social, and occupational therapy. All forms of stigma and discrimination against older adults with psychosis and their carers should be eliminated.

Key Points

- There is an increase of the prevalence of psychotic symptoms in older adults.
- The presence at this period of life of the highest comorbidity rate, the changes of the central nervous system with ageing, and the particular high frequency of life stressors during this period of life may all explain this.
- Psychotic symptoms are present in an important number of medical and psychiatric conditions and they make part of psychotic disorders in late life too.

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- The same classification of disorders with psychotic symptoms in adults may be used for older adults.
- Primary psychotic symptoms exist in persistent psychotic disorders (schizophrenia, delusional disorder, and schizoaffective disorder), acute psychotic disorder, and personality disorders (paranoid, schizoid, and schizotypal personality disorders).
- Secondary psychotic symptoms include major and minor neurocognitive disorders, delirium, organic mental disorders, and disorders due to psychoactive substance use, bipolar disorders, and depressive episode. Somatic disorders, comorbidities and iatrogenic causes are included at this cluster.
- Assessment and management at primary care require an organization of the mental health-care system.
- The management of psychosis in older adults implies the proper use of multidisciplinary therapeutic interventions: pharmacotherapy and psychological, social, and occupational therapy
- All forms of stigma and discrimination against older adults with psychosis and their carers should be eliminated.

Clinical Case

Mrs. M. L., 72-year-old-patient, is a retired economist, married without children living in Belgrade, Serbia. She describes a difficult relationship with her husband. She has previously experienced episodes of anxiety treated with serotonin reuptake inhibitors in the past.

She presented a fear that she was being stalked by someone and was suspicious of being robbed. Her husband didn't understand her behavior and believed that she was inventing and exaggerating everything as usual so she was seen at her sister in law's house by the psychiatrist.

Mrs. M. L. was noted to be wide eyed and frightened and was looking around the room suspiciously, she had little spontaneous speech but eventually said that she was being "attacked by an armature." Her sister-in-law reported that Mrs. M. L. was refusing to eat or to sleep because she believed that she was being watched by someone and was drinking small amounts of water. She denied hallucinations in any modality but her behavior suggested that hallucinations may be present and she described delusions of persecution and robbery. She was well orientated and had no insight into her condition.

A working diagnosis of late-onset psychosis in an older adult was made.

18.1 Introduction

"Wisdom comes with old age," we use to say. This statement forgets that the two most important threatens to "wisdom" are highly prevalent at this period of life: dementia and psychosis.

Psychosis is characterized by thought and perception distortions associated to emotional (sadness, anxiety), behavioral symptoms (apathy, aimlessness, self-absorbed attitude, excitement, posturing, stupor), vegetative changes (loss of energy, sleep, appetite), and neurocognitive impairments (executive functioning: planning, reasoning, problem solving, cognitive flexibility; attention; memory; verbal and visual learning; processing speed and social cognition) [1]. Patients often don't realize the pathological character of these symptoms. They represent a source of distress for patients, families, and the community. Interestingly, psychotic symptoms such as being spied by a neighbor, cheated by family members, and facing to intruders at home were just considered until some decades ago as eccentric behaviors of older adults [2, 3]. With the development of different classifications of mental disorders it became easier to make the proper diagnostic. But this illustrates how older adults with psychotic symptoms were—and still are—victims of prejudices, stigma, and discrimination.

One of the consequences of this is the few number of studies on psychosis in older adults besides considerable efforts to change this like the joint meeting of the European Association of

Geriatric Psychiatry and the Section for the Psychiatry of Old Age of the Royal College of Psychiatrists at London in 1992 [4], the International Late-Onset Schizophrenia Group Consensus Conference met in July 1998 [5], and the Potsdam Conference on Late-Onset Mental Disorders in 1999 [6].

There is an increase of the prevalence of psychotic symptoms in older adults. This may be explained by the presence at this period of life of the highest comorbidity rate, by the changes of the central nervous system with ageing, and finally also because of the particular high frequency of life stressors during this period of life (retirement, financial difficulties, bereavement, deaths of peers, physical disability) [7].

Thought and perception distortions are frequently found in primary care (PC) context. At low and middle income countries, primary care professionals may often be the only available resource to identify and manage the psychotic symptoms of older adults [8]. As part of these symptoms may belong to an ancient chronic psychosis, patients often are already very well known by PC: not only the professionals have followed the disorder onset and its evolution but they also know which personal and community resources are available. In the case of late-onset psychotic symptoms, PC has the patient's medical history, can quickly identify potential somatic disorders at the origin of the psychotic symptoms or recognize potential negative effects of drugs being used, and estimate the potential risk of drugs interactions. Independently of the economical country level, PC is an important resource to help in the management of treatments.

18.2 Epidemiology

Psychotic symptoms are present in an important number of medical and psychiatric conditions. In order to determine the frequency of a clinical phenomenon we need to precisely know to which condition we want to refer. In the case of psychotic symptoms we just can have a very approximate estimation: in fact we can say that besides the efforts to estimate the frequency of psychosis in older adults, results tend to underestimate the true prevalence.

The prevalence of all range of psychotic disorders in older adults with more than 65 years is 4–6% [9–13] and for those with more than 85 years as high than 10% [13]. The majority of these cases are related to psychotic symptoms in dementia. More than 23% of older adults will experience psychotic symptoms at some time and dementia is the main cause [14]. The proportion of older adults with schizophrenia whose onset was later than 40 years is 23.5% [15]. The annual incidence of schizophrenia-like psychosis increases by 11% every 5 years since the age of 60 years [15]. Paranoid schizophrenia occurs in 60% of cases and 30% is delusional disorder. The other form of psychosis occurs in 10% of cases. Paranoid and systematic delusions tend to increase with age in patients with schizophrenia, while symptoms of disorganization tend to decrease [16]. The diagnosis of a nonorganic psychosis first manifesting in older adults is not rare in tertiary care (about 30% of admissions at an old age psychiatric hospital) [17]. The most common etiology of psychosis in older adults is presented in Fig. 18.1 [18].

The prevalence of schizophrenia and delusional disorders for older adults is 0.5–1%, 5 times more frequent in women than in men

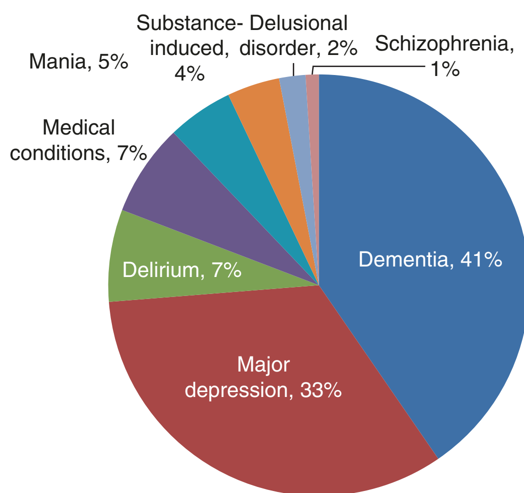

Fig. 18.1 Distribution of most common causes of psychosis in older adults [18]

(possibly because the onset of schizophrenia in women is later) [13]. Relatives of patients with very-late-onset schizophrenia have a lower morbid risk than the relatives of patients with early-onset schizophrenia [19, 20]. Older adults with good premorbid educational level, occupational, and psychosocial functioning are less impaired in case of late-onset schizophrenia than in those with early-onset schizophrenia [21–23].

The main risk factors for psychotic symptoms include female gender, brain degeneration with cognitive decline, brain neurochemical changes associated to the ageing process (which have relevant consequences on pharmacokinetics and pharmacodynamics for all drugs), comorbid medical conditions, medications (such dopaminergic and anticholinergic), substance abuse, social isolation, adequate stimulation deprivation, sensory deficits, and premorbid personality (paranoid) [15, 24].

18.3 Classification of Psychosis in Older Adults

The same classification of disorders with psychotic symptoms in adults may be used for older adults. The proposed classification here presented, with the respective diagnostic criteria, may quickly change next year with the publication of the International Classification of Diseases, 11th revision, to which a working group of old age psychiatrists was invited to review the classification of psychotic disorders. Table 18.1 presents the classification of the disorders where psychotic symptoms may be present.

Table 18.1 Classification of disorders presenting psychotic symptoms

Primary psychotic symptoms	Secondary psychotic symptoms
Psychiatric disorders *Persistent psychotic disorders* • Schizophrenia • Delusional disorder • Schizoaffective disorder *Acute psychotic disorder* • Acute and transient psychotic disorder *Other psychotic disorders*	*Psychiatric disorders* • Major and minor neurocognitive disorders (dementia) with psychotic symptoms • Delirium • Organic mental disorders (hallucinosis, catatonic, delusional) • Mental and behavioral disorders due to psychoactive substance use • Bipolar affective disorder with psychotic symptoms • Depressive episode/recurrent depressive disorder with psychotic symptoms
Personality disorders • Paranoid personality disorder • Schizoid personality disorder • Schizotypal disorder	*Somatic disorders and comorbidities* *Iatrogenic causes of psychosis*

Traditionally psychotic symptoms can be related to two main groups of disorders. The primary psychotic group includes functional disorders with no detectable physiological and anatomical change, an influence of substances, or iatrogenic causes. Psychotic symptoms constitute the core group of the diagnostic criteria. This group includes the persistent psychotic disorders, the acute psychotic disorder, other psychotic disorders, and the personality disorders. The secondary psychotic group includes some functional disorders (the psychotic symptoms are not the main symptoms) and the organic disorders where a disturbance of normal functioning may be explained by a biological detectable cause.

18.3.1 Primary Psychotic Symptoms

18.3.1.1 Psychiatric Disorders

Persistent Psychotic Disorders

- *Schizophrenia*: is characterized by disturbances that involve the most basic functions which give the normal person a sense of individuality, uniqueness, and self-direction. Multiple mental functions are affected including thinking (e.g., delusions, formal thought disorders), perception (e.g., hallucinations), self-experience (loss of the sense of agency or feeling of ownership of the experience), cognition (impaired attention, verbal memory, and social cognition), volition (e.g., loss of motivation), affect (blunted emotional expression), and psychomotor behavior (catatonia). Persistent delusions, persistent hallucinations,

thought disorders, and distortions of self-experience are considered core symptoms. At least one of these needs to be present for at least one month for the diagnosis. Other symptoms include negative symptoms (apathy and anhedonia, paucity of speech, and blunting of emotional expressions, not due to depression or to any medication), disorganized behavior (odd, eccentric, aimless, and agitated activity), and psychomotor disorders (excitement, posturing, or waxy flexibility, negativism, mutism, and stupor).

The diagnosis of schizophrenia should not be made when the symptoms exist less than one month, when they occur concurrently or within a few days of a diagnosable depressive or manic episode, and when it is possible to demonstrate the effects of a psychoactive substance or the presence of a general medical condition.

Schizophrenia can arise at any time in life—from childhood to very late age: the expression of symptoms shows a great variation when its onset is at the extremes of life. Understanding these variations can help to identify the causes of the disorder and its risk factors. A consensus statement was published in 1998 proposing, in an arbitrary way, cut-offs with potential clinical and research utility. Schizophrenia diagnosed before 40 years is classified as having an early onset; schizophrenia diagnosed between 40 and 60 years is recognized as having a late onset; schizophrenia diagnosed by the first time after 60 years is recognized as having a very late onset [5, 25].

There are several arguments to justify this classification: there are three adult peaks of onset corresponding to adult life, middle age, and old age [26, 27]. Female gender is associated with late age onset. There are no important differences in terms of symptoms between early- and late-onset schizophrenia [17], but in very late-onset schizophrenia there are low prevalence of formal thought disorder and affective blunting, while visual hallucinations are more frequent [28, 29]. No differences in type or severity of neurocognitive impairments were found between early- and late-onset cases, besides late-onset schizophrenia presents milder cognitive impairments (cognitive flexibility and abstraction) [30]. Familial schizophrenia (suggesting hereditary form of the disorder) is more common in earlier than in late-onset cases [20]. For other authors it was found that the following symptoms were more present and more severe in early-onset cases than in very late-onset cases: hallucinations, assiduity loss, grandiosity, reference and influence delusions, and friendship poverty. Very late-onset cases had more persecutory delusions and more vascular cerebral lesions/vulnerability [31].

- *Delusional disorder*: is characterized by the development either of a single delusion or of a set of related delusions that are unusually persistent (at least three months) and sometimes lifelong. Other defining symptoms of schizophrenia (persistent auditory hallucinations, disorganized thinking, negative symptoms) are not present, although various forms of perceptual disorders (hallucinations, illusions, misidentifications of persons) thematically related to the delusion are still consistent with the diagnosis. Apart from actions and attitudes directly related to the delusion or delusional system, affect, speech, and behavior are typically normal [32]. Clear and persistent auditory hallucinations and/or negative symptoms are incompatible with the diagnosis. The delusions are not due to the direct effects of a medical condition or substance on the CNS.

Delusional disorder is recognized as a frequent phenomenon in old age. This disorder is associated with premorbid personality (schizotypal, paranoid), hearing loss, low socio-economic status, and migration. Unfortunately, there are very few studies on this population but it seems that older adults are reluctant to seek treatment and they are more resistant to it. The delusional disorder is frequently more distressing to family members or neighbors than for the patient who frequently denies the existence of a problem [33]. It may be a part of several different types of nonorganic psychosis manifesting for the first time in the elderly and this may subsequently evolve into different diagnostic categories [34].

The classification according to the age of onset can contribute to a better understanding

of their epidemiology, psychopathology, and outcome. It was also proposed to use the same cut-off ages than used for schizophrenia to separate the cases in three groups (early onset, late onset, and very late onset).

- *Schizoaffective disorder*: is an episodic disorder with both symptom criteria of schizophrenia and a major mood episode (either depressive, manic, or mixed) that are prominent within the same episode of illness, preferably simultaneously or at least within a few days of each other. There are prominent symptoms of schizophrenia (delusions, hallucinations, disorders of self-experience, formal thought disorders) which are accompanied by typical symptoms of a depressive episode (depressed mood, loss of interest, reduced energy), a manic episode (elevated mood, increase in the quality and speed of physical and mental activity), or a mixed affective episode [35].

  Conditions that meet the above requirements, but with a duration of less than one month, should be diagnosed initially as acute transient psychotic disorders or as other psychotic disorder, depending on the clinical presentation. In cases where the symptoms of schizophrenia co-exist with an affective episode of mild severity, the individual should be diagnosed with schizophrenia with prominent depressive and/or manic symptoms.

  Schizoaffective disorders with first onset later in life are extremely rare, and for instance, there is no reason to distinguish between late-onset and early-onset schizoaffective disorders [36].

Acute Psychotic Disorder

- *Acute and transient psychotic disorder*: is characterized by acute onset of psychotic symptoms which emerge without a prodrome and reach their maximal severity within two weeks. Symptoms include delusions, hallucinations, disorganization of thought processes, perplexity or confusion, and disturbances of affect and mood. Catatonia-like psychomotor disturbances may be present. In most cases there is marked fluctuation of symptoms, sometimes from day to day. The duration of the disorder rarely exceeds three months. When the disorder recurs, periods of remission are typically longer and the outcome is generally better than in schizophrenia. The symptoms are not due to direct effects of a medical condition or psychotropic substance use.

  Symptoms are often precipitated by stressors or unexpected situations (death of a loved one, including animals, sudden change of wealth or other social issues—including moving to another domicile, diagnosis of severe disorder). Commonly, the premorbid functional level returns once the stressors are identified and managed [37]. This condition can be considered as a particular reaction to severe stress and an adjustment disorder.

Other Primary Psychotic Disorders

This category includes disorders with primary psychotic symptomatology that do not meet the criteria for schizophrenia, delusional disorder, schizoaffective disorder, acute and transient psychotic disorder, schizotypal disorder, or for psychotic types of affective disorders. Psychotic conditions due to brain disorders, general medical conditions, or substance use/withdrawal need to be excluded.

Table 18.2 presents the diagnostic criteria for the above disorders, such as proposed to the ICD-11.

18.3.1.2 Personality Disorders

Three personality disorders were included in this chapter because (1) their importance as risk factor for some of the above psychiatric disorders, (2) their characteristics may represent just a step between an adjusted personality and a psychotic disorder, (3) some classifications include them as a full psychiatric disorder since they have many aspects in common with the other disorders that they are related, and (4) they represent an important source of suffering and are problems for social integration and performance.

There are few studies of personality in older adults. They are behavioral patterns with inflexible responses to diverse situations of life. These patterns are stable in time and older adults have lived with them all their lives: there is no late-onset

Table 18.2 Diagnostic criteria for psychosis proposed to WHO for the ICD-11

Psychotic disorder	Diagnostic guidelines
Schizophrenia	The symptoms can be divided into and often occur together such as: (a) persistent delusions of any kind (b) persistent hallucinations in any modality (c) thought disorder resulting in severe cases in incoherence or irrelevant speech, or neologisms (d) distortions of self-experience (e) negative symptoms such as apathy and anhedonia, paucity of speech, and blunting of emotional expressions; it must be clear that these are not due to depression or to medication (f) disorganized behavior, including odd, eccentric, aimless, and agitated activity (g) psychomotor disorders such as excitement, posturing, or waxy flexibility, negativism, mutism, and stupor At least two of the symptom categories [at least one of them should include symptoms from the core symptoms (a) to (d)] should have been clearly present for most of the time during a period of 1 month or more The diagnosis of schizophrenia should not be made: (1) For conditions that meet the above requirements but with a duration of less than 1 month (2) If the symptoms of schizophrenia occur concurrently or within a few days of a diagnosable depressive or manic episode (3) If the disturbance is due to demonstrable effects of a psychoactive substance or to a general medical condition
Delusional disorder	• Development of a delusion or set of related delusions persisting for at least 3 months • Delusions are variable in content across individuals while showing remarkable stability within individuals over time. They may evolve over time. Common forms of delusions: persecutory, hypochondriac/somatic, grandiose, delusional jealousy, and erotomania • Delusions may be accompanied by actions, which may be extreme, directly related to the content of the delusions • Clear and persistent auditory hallucinations and/or negative symptoms are incompatible with the diagnosis • Apart from the actions and attitudes directly related to the delusional system, affect, speech, and behavior are unaffected • Anxiety and/or depression may be present intermittently, but do not persist over time. Delusions must be present at times when there is no disturbance of mood • The definitional criteria for schizophrenia or any other psychotic disorder have never been fulfilled at any time • The delusions are not due to the direct effects of a medical condition or substance on the CNS
Schizoaffective disorder	A diagnosis of schizoaffective disorder should be made only when the symptom criteria of schizophrenia and of a depressive, manic, or mixed episode of moderate or severe degree are present simultaneously or within a few days of each other • The disorder is characterized by episodes in which delusions, hallucinations, or other symptoms of schizophrenia co-occur with a depressive, manic, or mixed affective episode • The duration of symptomatic episodes is at least four weeks for both psychotic and affective symptoms • The psychotic and mood symptoms are not due to the direct physiological effects of a substance, a general medical condition or its treatment • The disturbance is not better accounted for by a diagnosis of schizophrenia, an episode of a mood disorder with psychotic features, a mental disorder due to a general medical condition or its treatment, or a substance-induced disorder

(continued)

Table 18.2 (continued)

Psychotic disorder	Diagnostic guidelines
Acute and transient psychotic disorder	Acute onset of psychotic symptoms, with or without other symptoms, that emerge without a prodrome, progressing from a non-psychotic state to a clearly psychotic state within 2 weeks • Symptoms typically change rapidly, both in nature and intensity. Such changes may occur from day to day, or even within a single day • In addition, there are often other symptoms such as disturbances of affect, transient states of perplexity, or impairment of attention and concentration. Importantly, if present, these symptoms do not meet the criteria for mood disorders or delirium, respectively • The disorder is transient with duration usually not exceeding 3 months • The onset of this disorder is usually associated with a rapid deterioration in social and occupational functioning. Following remission, the person is generally able to retain the premorbid level of functioning. The symptoms of this disorder are not due to direct effects of a medical condition or psychotropic substance use
Other primary psychotic disorders	"Other primary psychotic disorder" should be coded if the number or duration of psychotic symptoms (i.e., delusions, hallucinations, formal thought disorder, grossly disorganized, or catatonic behavior) do not fulfill the criteria for any specific psychotic disorder or to justify any other specific diagnosis. Psychotic conditions due to brain disorders, general medical conditions, or substance use/withdrawal need to be excluded

or very late-onset personality disorder, at least not in absence of brain damage or deterioration. Their presence may significantly limit the capacity of the older adult to cope with the several stressors common at these period of life and be, in some cases, a premorbid state of late- and very late- onset psychotic disorders.

Three conditions can be here listed. All of them may be a premorbid condition for schizophrenia and delusional disorder. They represent at the DSM-5 the Cluster A Personality Disorder [38]:

(a) Paranoid personality disorder: It is characterized by a pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent.
(b) Schizoid personality disorder: It is a pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings.
(c) Schizotypal personality disorder: It is also a pervasive pattern of social deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behavior.

18.3.2 Secondary Psychotic Symptoms

18.3.2.1 Psychiatric Disorders

Psychotic symptoms may be present during the course of some psychiatric disorders which may be divided into three clusters:

- Organic disorders at directly affecting the central nervous system:
  – Major and minor neurocognitive disorders (dementia) with psychotic symptoms
  – Delirium
  – Organic mental disorders (hallucinosis, catatonic, delusional)
- Mental and behavioral disorders due to psychoactive substance use
- Mood disorders
  – Bipolar affective disorder with psychotic symptoms
  – Depressive episode/recurrent depressive disorder with psychotic symptoms
- *Major and minor neurocognitive disorders (dementia) with psychotic symptoms*: Psychotic symptoms during the course of a neurocognitive disorder, such dementia, make part of what is

known as behavioral and psychological symptoms of dementia (BPSD). These symptoms are very well described in Chap. 21 of this book and will not be developed here. BPSD are frequent in dementia (2/3 of patients will present at least one of them at a given time), they are a sign of severity of the dementia and it contributes to increase the suffering of patients and the burden of their caregivers [39–41]. It may increase the risk of institutionalization, violence, abuse, and older adult neglect [15, 42].

- *Delirium*: the Chap. 20 of this book is dedicated to delirium. The definition used by the authors is: "Delirium is primarily a disturbance of consciousness, attention, cognition, and perception but can also affect sleep, psychomotor activity, and emotions. It is a common psychiatric illness among medically compromised patients and may be a harbinger of significant morbidity and mortality."
- *Organic mental disorders*: there are several conditions causally related to brain dysfunction because of trauma, a primary brain disease, to a systemic disease affecting the brain secondarily, to endocrine disorders, and to the use of toxic substances. What will differ them from delirium is the fact that they don't include necessarily the impairment of consciousness and attention as well of the cognitive disturbance. Among the several forms listed some include psychotic symptoms as main symptoms:
  - *Organic hallucinosis*—persistent or recurrent hallucinations occurring in clear consciousness (with or without delusional elaboration).
  - *Organic catatonic disorder*—diminished or increased psychomotor activity with catatonic symptoms like those observed in schizophrenia. It may be confounded with delirium as it may rarely occur without clear consciousness.
  - *Organic delusional disorder*—persistent or recurrent delusions (with or without hallucinations) dominating the clinical picture in the presence of an organic etiology.
- *Mental and behavioral disorders due to psychoactive substance use*: Acute intoxication, induced persistent psychotic disorders, and substance withdrawal must be considered. The most common drugs causing such problems in older adults are alcohol, tobacco, and caffeine. Prescribed drugs as sedatives or hypnotics, and opioids (for chronic pain) are at the origin of such difficulties too. The psychotic disorder related to the substance use may take different forms such schizophrenia-like, delusional, hallucinatory, polymorphic, depressive, manic, and mixed. In general, consciousness is clear but it may also be clouded.
- *Bipolar affective disorder with psychotic symptoms*: The presence of psychotic symptoms is a sign of higher severity of bipolar disorder. Besides most frequently the first episode of mania occurs early in life, and it can also occur later. Older adults with psychotic symptoms in mania usually have grandiose delusions, irritability, and sexual inappropriate behaviors. Patients usually don't recognize them as ill and they may have delusions of possessing great fortune, exceptional skills, and superpowers. Psychotic symptoms during the depressive phase of bipolar disorder don't differ of those of depressive episode and of recurrent depression.
- *Depressive episode/recurrent depressive disorder with psychotic symptoms*: Psychotic symptoms in depression also represent a sign of severity of the depressive episode. They are more common in late-onset depression than in earlier onset. The delusions concern more hypochondriac features, punishment for unforgivable acts, or of catastrophes affecting beloved ones. The majority of delusions are mood congruent [14].

18.3.2.2 Somatic Disorders and Comorbidities

These conditions are cited here because:

- They are at the origin of psychotic symptoms in two major conditions (delirium and organic mental disorders);
- Primary care is a good context to detect and manage them without being necessary to refer the patient to a secondary level.

They may include almost all internal medicine conditions. We should always have in mind the possibility of acute and chronic pain, water and electrolytic disturbances, and infections. Tumors, endocrine disorders, cardiovascular disorders, respiratory chronic conditions, urinary disturbances, intestine transit disturbances, and in particular, sensory impairments (hearing and sighting incapacities) can all be at the origin of persistent and/or acute psychotic symptoms.

18.3.2.3 Iatrogenic Causes of Psychosis

The use of prescribed and non-prescribed drugs may cause psychotic symptoms and also be at the origin of delirium and organic mental disorders. Again primary care teams are at the good place to detect any deviance in the use of these drugs. The medication potentially causing psychotic symptoms include: antihistamine, anti-Parkinson drugs, anti-arrhythmics, anti-inflammatory drugs, anticonvulsants, steroids, sedatives, and anticancer drugs.

Invasive procedures, referral to specialists/hospitals, and any other intervention perceived by an older person as threatening can be at origin of psychotic symptoms. It is important to spend the necessary time to explain the reason why these prescriptions are made and to check the person understanding, to execute them as friendly as possible, and to avoid unnecessary procedures.

18.4 Assessment and Management at Primary Care for an Older Adult with Psychotic Symptoms [1]

18.4.1 Organizing Mental Health Care for Older Adults

To assess and to manage psychotic disorders in older adults is complex. It often requires particular knowledge and skills but it also depends on how the health system is organized at local, regional, and national level. Clinical decisions on what to do, in which priority, when, and to whom to refer are all depend on how the health-care system is structured and how much easy the access to mental health care is. This is not specific only to psychosis but also to all mental health disorders in older adults.

WHO is working alongside governments, NGOs, national academic, and research teams to improve access to high quality mental health treatment and care for all in need. Key messages and actions that WHO is promoting are as follows [43]:

- Stop the human rights violations in mental health facilities;
- Develop mental health laws which respect human rights, promote adequate health care, and stop social exclusion;
- Put in place mental health policies and strategic plans that enable national authorities to prioritize and coordinate all mental health actions in the country so as to maximize positive outcomes for people with mental illness and the communities in which they live;
- Provide appropriate treatment, care, and support through better mental health services and the mobilization of untapped community resources; and
- Advocate for better recognition and action for mental health in national development agendas and programs.

As mentioned at the WHO/WPA consensus statement on organization of care in psychiatry of the elderly [44], all people have the right of access to a range of services that can respond to their health and social needs. These needs should be met appropriately for the cultural setting and in accordance with scientific knowledge and ethical requirements. Governments have a responsibility to improve and maintain the general and mental health of older people and to support their families and carers by the provision of health and social measures adapted to the specific needs of the local community.

The inclusion of topics related to the mental health of older adults in national mental health policies is mandatory. According to these policies, it is necessary to develop specific programs to address coordinated response to the mental health

needs of this population. Another important step is to train professionals to recognize the symptoms and to develop their skills on how to manage them, offering appropriate response to the person and support for the carers. Therapeutic resources have to be available, not only the essential drugs but also psychological resources and opportunities for appropriate psychiatric rehabilitation. All these actions depend on the national economic development and Table 18.3 proposes a list of required actions for the care of older adults in case of psychosis, according to the national income level.

18.4.2 Managing Psychosis in Older Adults

18.4.2.1 General Principles

Any older adult should be routinely and specifically enquired about the presence of psychotic symptoms: check the presence of beliefs not shared by others and if he/she is hearing voices or seeing things that nobody else perceives. Co-lateral investigation may inform about any behavioral and activity changes. Assess always the neurocognitive functioning.

Be aware of possessing good skills on how to interview an older adult with psychosis. The first step for the assessment and the management of psychosis is to build supportive and empathic relationship with the person [45]. This can be particularly challenging in patients with paranoid symptoms. Treat patient with respect and offer care in the least restrictive environment as possible [46]. Be optimist and encourage hope. The person with psychosis should be provided with a diagnosis and be informed about it in a language easy to be understood [46]. Explain the nature of the symptoms and that they are related to a mental disorder that can be treated [1]. Assess the risk of self-harm and the risk for the others.

Take into account cultural and religious aspects, particularly in case of older adults from different origins than yours. If necessary, seek advice and supervision of an experienced professional on transcultural aspects of psychiatry, if available [45].

Health needs of older adults are diverse. At primary care it is easier to manage the prevention, early detection, and treatment of the majority of somatic health problems. Older adults with psychosis are at risk to develop several health disorders in particular in the case of those carrying for a long time their mental disorder. Routinely monitor weight, cardiovascular, and metabolic indicators. Promote good healthy behavior (avoid alcohol and other non-prescribed drugs, physical activity, regular sleep, good personal hygiene, avoid stressors), check the diet habits, detect excessive weight gain, abnormal lipid, and glucose levels, offer help to stop smoking [45]. Note carefully all the drugs being used (even those not prescribed). Assess the consumption of any other substance potentially dangerous (including alcohol and caffeine).

Offer to those who take care of older adults with psychosis the possibility to express their own needs, feelings, and questions. This could reduce the level of expressed emotions inside the relationship context. With the person's consent, inform them about the diagnosis, prognosis, available supports (including social support), and how to lead with crisis situations. Include them in the decision-making care plan. Educate carers to avoid to convince the person that his/her beliefs are false and tell how to assume a neutral and supportive attitude [1, 46].

Explain to the person and the carers about the therapeutic elements, the necessity to take regularly some drugs, and the need for regular controls. Tell about the possibility of relapse of symptoms and how to lead with this.

Identify potential stressors and try to propose strategies to reduce them. Propose help to reduce isolation: encourage the person to improve social activities, to contact prior old friends, and to establish new relationships. Use the resources of the community: make the person to contact his/her religious community, identify the leisure and cultural activities groups, and promote the participation to physical activities with other persons. Group occupational therapy may be necessary for same persons. This may reduce

Table 18.3 Required actions for the care of older adults with psychosis

Actions	Low income countries	Middle income countries	High income countries
Providing care in primary care	Recognize psychosis care as a component of PC Include the recognition and treatment of psychosis in training curricula of all health personnel, including refresher training to PC physicians	Develop locally relevant training materials Provide refresher training to PC physicians	Improve effectiveness of management of psychosis in PC Improve referral patterns
Making appropriate treatments available	Increase availability of essential antipsychotics Develop and evaluate basic educational and training interventions for caregivers	Ensure availability of essential antipsychotics in all health-care settings Make effective caregiver interventions generally available	Provide easier access to newer antipychotics Provide access to psychological interventions both for older adults as for their caregivers
Giving care in the community	Older adult people with psychosis are best assessed and treated in the place where they are living Develop and promote standard needs assessments for use in primary and secondary care Initiate pilot projects on development of multidisciplinary community care teams, day care, and short-term respite care Move people with psychosis out of inappropriate institutional settings	Initiate pilot projects on integration of psychosis care with general health care Provide community care facilities (with multidisciplinary community teams, day care, respite, and inpatient units for acute assessment and treatment) Encourage the development of residential and nursing-home facilities	Develop alternative residential facilities Provide community care facilities Give individualized care in the community to people with psychosis
Educating the public	Promote public campaigns against stigma and discrimination Support nongovernmental organizations in public education	Use the mass media to promote awareness of mental health of older adults and foster positive attitudes	Launch public campaigns for early help-seeking, recognition, and appropriate management of mental health disorders in old age
Involving communities, families, and consumers	Support the formation of self-help groups Fund schemes for nongovernmental organizations	Ensure representation of communities, families, and consumers in policy-making, service development, and implementation	Foster advocacy initiatives
Developing human resources	Train primary health-care workers Initiate higher professional training programs for doctors and nurses in geriatric psychiatry and medicine Develop training and resource centers	Create a network of national training centers for physicians, psychiatrists, nurses, psychologists, and social workers	Train specialists in advanced treatment skills

Table 18.3 (continued)

Actions	Low income countries	Middle income countries	High income countries
Supporting more research	Conduct studies in primary health-care settings on the prevalence, course, outcome, and impact of psychosis in the community	Institute effectiveness and cost-effectiveness studies for community management of psychosis	Extend research on the causes of psychosis in older adults Carry out research on service delivery Investigate evidence on the prevention of psychosis in older adults

negative symptoms. This therapy combines psychotherapy strategies with activities aimed at creativity expression [1].

The improvement of the person's autonomy and independence is one of the main goals of the treatment. Offer to the person support to improve his/her life skills and to enhance independent living skills. Even if the older adult lives in a context of restriction of his/her liberty (nursing homes) all efforts should be made to improve his/her skills to make choices (dressing, menus).

18.4.2.2 Therapeutic Resources

The offer of the therapeutic resources will depend on the diagnosis at the base of the psychotic symptoms: we don't treat psychotic symptoms in affective disorders, major neurocognitive disorders, delirium, or other organic mental disorder in the same way that those present in persistent and acute psychotic disorders. Here we will essentially discuss the treatment for these last conditions. Two main therapeutic interventions should be easily available: pharmacotherapy and psychotherapy. The use of both together increases the chance of the best recovery. Antipsychotics should be used routinely but psychotherapy will be used according to some conditions described below.

Pharmacotherapy

The main rules to be followed are [1, 46]:

- As soon as the proper diagnosis is made, initiate an antipsychotic medication;
- Weigh the risks and benefits with the patient, their family members, or their surrogate decision maker;
- Prescribe one antipsychotic at a time. Avoid regular combined antipsychotic medication (except for short periods);
- Start with the lowest dose and titrate up slowly to reduce side effects;
- Monitor before use of an antipsychotic: weight, blood pressure, fasting sugar, cholesterol, ECG, assess any movement disorder, nutritional status, and level of physical activity.
- Monitor regularly during the treatment, the therapeutic response, the side effects (some of them can be both provoked by the antipsychotic or by the psychosis), the emergence of movements disorders, weight, pulse, and blood pressure, fasting blood glucose and lipid levels, adherence, and any change in other health condition.

The choice of the antipsychotic should be based upon the side effects and how it is supposed to affect the person's life. Antipsychotics in older adults have shown to increase the risk of mortality, stroke, neurocognitive decline, extrapyramidal symptoms, sedation, and a serious but rare condition called neuroleptic malignant syndrome [47]. Atypical and conventional antipsychotics have also shown to have an increased risk of falls but they have been preferred than conventional antipsychotics because they have less severe side effects.

Psychotherapy

There are few studies of psychotherapy for older adults with psychosis. Nevertheless, NICE [45] proposes some recommendations that can be used for this population. Essentially there are two possible psychological interventions: cognitive behavior therapy (CBT) and family therapy. Healthcare professionals taking in charge one of these two interventions should have particular skills in delivering this therapy to older adults with psychosis and be regularly supervised. It

could be very difficult to deliver this kind of care at primary care level and the majority of times these healthcare professionals work at a secondary level facility.

CBT may help older adults to establish links between their thoughts, feelings, and actions and their symptoms and functioning level as well help these persons to re-evaluate their perceptions, beliefs, and thoughts to their symptoms. Other goals may be to help people to learn how to monitor their own thoughts, feelings, or behaviors, to promote alternative ways of coping with their symptoms, to reduce distress, and to improve functioning [45].

Family intervention in the presence of the person (if possible) should take account of the relationship between the main carer and the person with psychosis, and have a specific supportive, educational, or treatment function, including negotiated problem solving and crisis management [45].

18.4.2.3 Preventing Psychosis in Older Adults

Psychotic symptoms in older adults related to somatic disorders and/or because of iatrogenic causes can be prevented by the good control of somatic conditions: the prevention for them should also prevent the psychotic symptoms. Avoiding the use of drugs for persons at risk to develop psychosis, regularly monitoring the use of all substances, and encouraging older adults to stop smoking, to use alcohol very moderately, and to reduce caffeine consumption may all contribute to reduce risks. An attention has to be paid to prevent drug interactions as well as to the impact of pharmacokinetics and pharmacodynamic changes related to ageing and to existing conditions.

Delirium can be prevented by the control of the main predisposing factors: age >65 years old (because of the higher number of comorbid pathology and polypharmacy, increasing the risk of noxious drug interactions and side effects), the use of physical restraints, malnutrition, more than three medications added, use of bladder catheter, any iatrogenic event, and finally acute insults (acute bacterial/viral infection, fractures, metabolic alterations, intense uncontrolled pain, hypoxia and ischemia, and sleep deprivation) [48–50].

Psychotic symptoms in case of major neurocognitive disorders make part of the conditions and are relatively difficult to prevent. Psychotic symptoms, as one of the major symptoms of BPSD, may occur in particular such physical discomfort, as a drug side effect, psychological ill-being, environmental or caregiver inadequacy, or any combination of the former. The premobid personality may contribute to its onset.

There is no possible prevention for personality disorders: the possible therapeutic interventions should be used years before. But CBT may have an impact to increase the acceptance of own self and help to promote alternative ways of coping with life's difficulties, to reduce distress, and to improve functioning. There is no indication to administration of antipsychotics in this case.

Psychotic symptoms in the course of an affective disorder (bipolar, depressive disorder, or recurrent depression) are a sign of severity. The prevention consists on earlier interventions in life to treat them (psychological and/or pharmacological) as rarely they start later in life. Antidepressants may prevent depressive relapse and mood stabilizers may prevent both bipolar and depressive episodes relapse but their use have to be very well monitored.

In the case of any distressed older adult with social functioning decline and with psychotic symptoms it should be assessed without delay by a specialist. This may be difficult in lower income countries without specialists easily available but in the presence of these symptoms the evaluation of any medical condition is mandatory. History, physical examination, laboratory examination, and brain image if available should respond if there are medical conditions or side effect of drugs. Don't offer antipsychotics to reduce the risk of or preventing psychosis.

18.4.2.4 Managing Early-Onset Psychosis in Older Adults [45]

An older adult with a history of psychosis started early in life is someone who should know enough

well his mental disorder and probably is already known by the primary care professionals. If the history points for good results of previous treatments start to use them. Offer crisis intervention resolution. Assess the risks for the person's and career's security. Consider all available resources to help the person in the community and refer him/her to an inpatient unit only if there is no other better solution. Referral to a specialized mental health service will depend upon local availability of such a service. Consider in this case the possibility of the person to refuse this solution: lead with the medical and legal aspects of an involuntary hospitalization according to the local rules.

The treatment options include oral antipsychotic medication with psychological intervention. Review existing medication and adapt the doses or replace it by another antipsychotic if necessary. CBT and family intervention may start during the acute phase or later. Consider occupational therapy. The treatment should be continuously be monitored and be offered as long as necessary to prevent relapse. After discharge of the inpatient unit, the follow-up may be assured by a specialized outpatient unit or by primary care team if clear orientations are available.

Other situations where an older adult with psychosis should be referred by primary care to a specialized unit are a poor response to treatment, a non-adherence to medication, intolerable side effects, comorbid substance misuse, and the risk to self and others security [45].

18.4.2.5 Managing Late or Very Late-Onset Psychosis in Older Adults

There is a higher risk of organic mental disorders or of major neurocognitive disorders in the case of late or very late-onset psychosis and all efforts should be made in order to make an early diagnosis of these conditions. Monitor for other possible conditions such as affective disorders, anxiety, substance misuse, and somatic health problems. Otherwise, the psychotic condition should be treated as any first psychotic episode.

A complete and multidisciplinary assessment should be made, if possible in a specialized board. Psychiatrist, neurocognitive psychologist, and trained nurse and social work should work together to address the following points [45]:

– Medical assessment including medical history, physical examination, identification of all drugs being used;
– Psychiatric assessment with identification of risk factors, personality profile, past mental health problems, use of substances (alcohol, caffeine, etc.);
– Identification of social determinants of health and disease (accommodation, social network, financial conditions, leisure activities, family constellation, spiritual and cultural needs, etc.);
– Identification of past and present stressors (in particular with recent and past losses) and trauma. Assess the possibility of a post-traumatic stress disorder;
– Satisfaction with own life.

If possible, avoid using antipsychotics for a first episode at primary care level unless a specialist recommends it. Otherwise, offer antipsychotic medication as mentioned before. CBT and family interventions should make part of the care plan. Occupational therapy should be offered if available.

18.4.2.6 Recovery and Follow-Up

Once the acute psychotic episode is under control, continuous treatment should be provided involving multidisciplinary approach. Pharmacology, psychological, social, and occupational interventions should be available. Promote autonomy and independence; fight all forms of possible stigma and discrimination against the persons and the carers.

General practitioners and other primary health-care professionals can manage the residual symptoms, if they exist. These professionals should monitor the physical health of older adult with psychosis under treatment as frequently as possible. Attention should focus not only on any sign of psychotic relapse but also on cardiovascular disease risk assessment, lipid modification, and of fasten glucose levels.

In case of older adults whose illness has not responded enough to treatment, diagnosis should be reviewed; the adherence to treatment has to be

assured, with drug monitoring when possible. Other causes of non-response should be considered as comorbidity, drug interaction, and the use of other substances.

18.5 Conclusion and Future Developments

Psychotic symptoms in older adults are still today object of little interest of researchers. Psychopathological understanding of late and very late-onset disorders may help to define new therapeutic strategies. Older adults with psychotic symptoms are very vulnerable to stigma and discrimination: it is necessary to develop specific topics to protect them at the national mental health policy. Integration with other sectors of the society may be necessary to promote their protection: educational sector, justice, and security forces all together should collaborate together for a better result. In case of loss of autonomy because of the mental disorder, legal protection should be offered and regularly reviewed. For that it is necessary to assess the capacity to consent. How to lead with a growing older adult population with a long history of psychosis is a challenge: the majority of protocols of care, rehabilitation procedures, and goals were developed for younger adults, very often with the intention to insert them at the working market. This is not possible for older adults at the age of retirement and solutions will have to be found. Structures to support these persons and their families to live in the community are still missing and residential facilities are not prepared in their majority to cope with chronic psychotic older adults. To achieve the highest possible level of quality of life for older adults with psychosis, two complementary dimensions must be taken into account: the psychological well-being and individual resilience besides their deficiencies.

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