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## **Population Ageing: Current Situation and Challenges in Morocco**

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### **SUMMARY :**

Population aging is one of the most important social transitions of the last decade, leading to serious economic, social, but above all medical consequences. Psychiatry, being no exception to this phenomenon, sees the prescription of psychotropic drugs in the elderly on the rise, the doses are increasingly high, with frequent recourse to polypharmacotherapy.

The objective of our work is to determine the characteristics sociodemographic, clinical, addictological, patients aged over 50, psychiatric consultants, with a view to highlighting the clinical and therapeutic particularities of this age group.

For this, we conducted a cross-sectional study with a descriptive aim, covering 84 patients, aged over 50, followed on an outpatient basis in our training during the year 2023. The average age was 70 years, with a clear predominance masculine. Somatic comorbidities and addictive behaviors were common, mainly tobacco. Schizophrenia and dementia were the most common diagnoses. Therapeutically, dual therapy made up of at least two psychotropic drugs from different families was prescribed for the majority of patients.

Informing doctors and making them aware of the particularities of the elderly, who constitute a particularly vulnerable area, would help to optimize the care provided to them, including in psychiatry.

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**Keywords:** Psychotropic drugs, aging, geriatric psychiatry.

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### **I. Introduction :**

Population aging is becoming one of the most important social transformations of the current century, almost all countries in the world must face an increase in their elderly population, with repercussions economic, social, but above all medical considerable [1].

Indeed, according to the 2022 edition of the report [World Population Prospects](#), the population aged 65 or older is growing faster than that of other age groups. The percentage of the world's population aged 65 and over is expected to increase from 10% in 2022 to 16% in 2050. It is predicted that by 2050, the number of people aged 65 and over in the world will be twice as high as the number of children under 5 and almost equivalent to the number of children under 12 [2].

Indeed, the aging of the population undoubtedly represents the most spectacular demographic characteristic that Morocco will experience in the next three or four decades. After having taken up the challenge of controlling fertility, Morocco will have to take up a new one, that of economic and social support for the aging of its population [3].

Parallel to this demographic transition, there is an increase in the demand for care, particularly psychiatric, the prescription of psychotropic drugs in older people is therefore becoming more and more frequent, the doses are increasingly high, with frequent use to polypharmacotherapy. However, the problems related to drug interactions and changes in metabolism in patients make the risk of developing adverse effects to treatments greater, with sometimes serious consequences, including falls or confusional episodes [4].

The objective of our work is to draw up an inventory of psychiatric disorders among elderly people in Morocco. To do this, we will first determine the characteristics sociodemographic, clinical, addictological, of patients aged over 50, followed on an outpatient basis in psychiatry, before highlighting the clinical and therapeutic particularities of this age group.

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### **II. Subjects and method:**

- 1- Type and location of the study :** We conducted a cross-sectional study, with a descriptive aim, involving 84 patients, aged over 50, followed on an outpatient basis in the emergency department of the Arrazi psychiatric hospital in Salé.

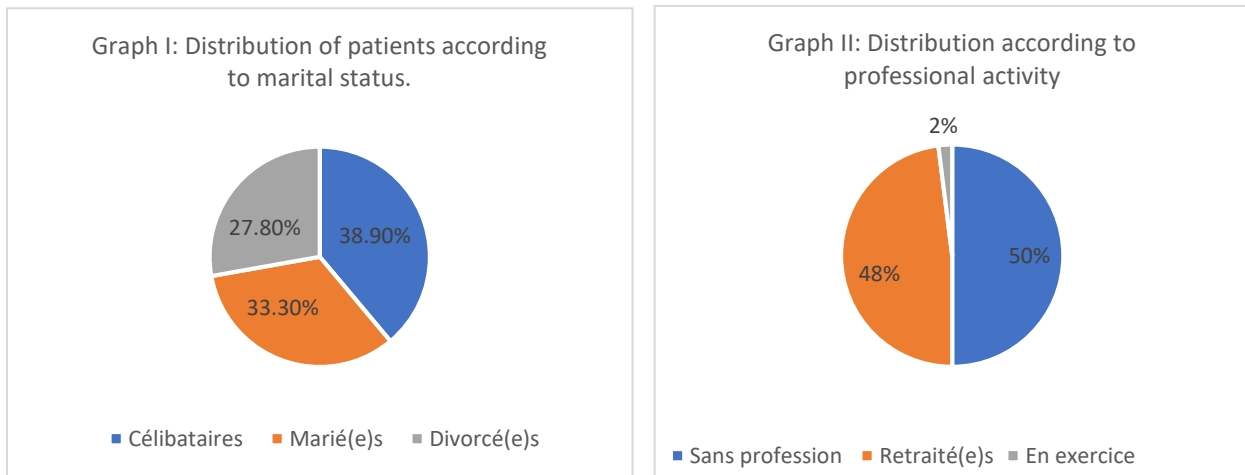
- 2- **Period of the study :** Our work focuses on cases hospitalized in emergency departments, during the year 2022.
- 3- **Population studied:** Our study includes a population of patients who present with a psychiatric disorder, aged 50 or over.
- 4- **Data collection:** Data were first collected on a paper medical record consisting of information, tracking and tracing sheets for hospitalized patients. The investigation was carried out in accordance with the rules of ethics after the informed consent of the participating subjects as well as the assurance of anonymity and confidentiality and in the presence of those responsible for the addiction department.

### III. Results :

1. **Sociodemographic data:** The total number of patients recruited from the outpatient consultation was 84, their ages varied between 50 and 85 years, with an average age of 62 years, 76.19% were male while 23.81 % were female.

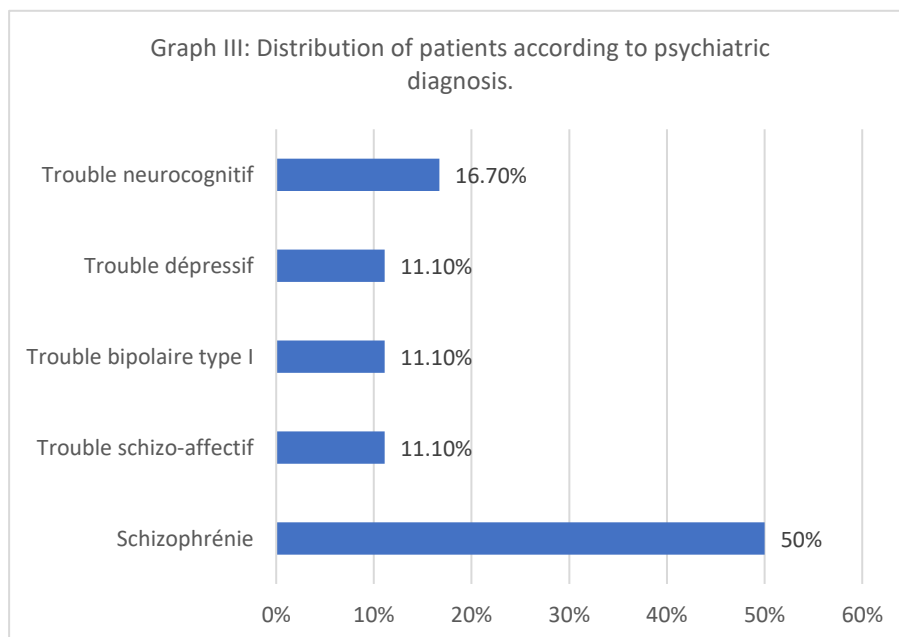
All of our patients lived in urban areas, 38.9% were single , 33.3% married , while 27.8% were divorced (Graph I).

50% of patients were unemployed, while 44% were retirees . 38.9% did not benefit from any medical coverage and all patients lived with a family member. (Graph II).

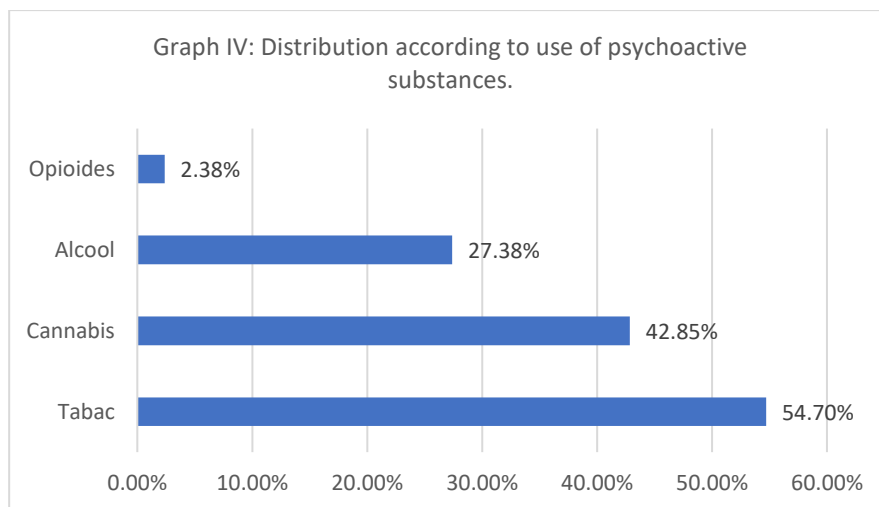


2. **Clinical data:**

The first diagnosis was schizophrenia (50%), followed by neurocognitive disorders (16.70%), schizoaffective disorder (11.1%), bipolar disorder type I (11.1%) and depression ( 11.1%).



64.7% of patients had a history of suicide attempt, and 5.55% had a criminal history. The addictive behaviors were present in 54.76% of patients, with tobacco first, followed by Cannabis, then alcohol (Graph IV).



Somatic comorbidities were frequent and present in 38.70% of patients, with type 2 diabetes first, followed by high blood pressure and benign prostatic hypertrophy. We also noted asthma, hepatic cirrhosis and end-stage renal failure under hemodialysis.

### 3. Therapeutic data:

Therapeutically, the main antipsychotic molecules prescribed were haloperidol (26.19%), followed by risperidone 15 (17.85%), and finally Aripiprazole (5.95%). Amisulpride and Clozapine were not prescribed to our patients.

For antidepressants, we found that the majority were on SSRIs, mainly Sertraline (5.95%) and fluoxetine (2.38%), but also mianserin (2.38%) and Amitriptyline (1.19%).

Patients who presented neurocognitive disorders were also placed on Memantine (11.90%) and Donepezil (4.76%).

## IV. Discussion :

Old age is characterized by the onset of several complex health conditions that generally do not occur until later in life and do not constitute distinct disease categories. This is commonly called geriatric syndromes. These, which include frailty, neurocognitive disorders, falls, etc. They often result from several underlying factors [5].

Advances in scientific research and medical care, the identification of important factors that contribute to long-term physical and mental well-being, and a greater appreciation of the need to maintain a proactive approach to health management have all contributed to the increase in the number of elderly people around the world [6].

Like other countries, the demographic transition in Morocco is marked by the concomitant fall in fertility, general mortality and the increase in life expectancy of the population [5]. According to projections established by the High Commission for Planning, the proportion of people aged 60 and over has almost doubled in 40 years after having been 6.4% in 1982. This trend is expected to continue, and even to accelerate until reaching 15.4% (or approximately 5.8 million people aged 60 and over) in 2030 and 23% of the total population in 2050 [7].

### 1. Sociodemographic data:

The total number of patients recruited from the outpatient consultation was 84, their ages varied between 50 and 85 years, with an average age of 62 years, 76.19% were male while only 23.81% were female.

At the global level, the participation rate of people aged 60 or 65 and over in activities economic in 2015 is 15.1% in developing countries and 9.8% in developed countries [8].

In Morocco, according to the results of the 2018 ENPSF, this proportion of elderly people having a job at the time of the survey is 19.2% and 74.3% of elderly people declare that they are no longer able to work, 63% of whom are barely aged 60 to 69. Depending on the area of residence, people aged 60 and over who declare that they have an activity are more likely to live in rural areas (58.4%) than in urban areas (56.9%) [5].

Depending on gender, women aged 60 and over exercise daily activity at the time of the survey more than men (62.5% compared to 52.7%). This situation is different from the classic situation relating to the status of women in terms of daily activities linked to work outside the home [7].

All of our patients lived in urban areas, 38.9% were single, 33.3% married, while 27.8% were divorced, no patient lived alone without family. According to the results of the ENPSF-2018 report, the majority (70.6%) of people aged 60 and over are married, more than a quarter (25.3%) are widowed, 2.5%

of elderly people are divorced and 1.7% are single [5]. A study conducted in East Boston found that 31% of men and 53% of women aged 85 or older residing in the community lived alone and 46% and 7%, respectively, lived with a spouse. More than 80% of these seniors maintained at least monthly contact with one or more of their children [8].

## 2. Clinical picture:

### 2.1. *Psychiatric pathologies that evolve with age:*

These are patients whose disorders began during childhood, adolescence or adulthood and whose evolution, through the prism of aging, requires continued care. Classically, depressive disorders tend to become chronic, the interval between episodes is reduced, the duration of episodes lengthens, and remissions are less complete.

Personality disorders tend to become more pronounced with age. The vulnerability they cause undermines the adaptive capacities necessary to mobilize during the narcissistic changes and rearrangements linked to aging [9].

For psychotic patients, advancing age brings a change on a deficit side, with an increase in negative symptoms, withdrawal, apragmatism, which can then take the form of a characterized apathy, which it is sometimes difficult to differentiate from an entry into dementia. Often isolated, they find themselves having to face a new period of their life, without reference points and with adaptation capacities which can be undermined [10].

### 2.2. *Late-onset psychiatric pathologies:*

Inaugural psychiatric symptoms can emerge after age 65, and characterize a late-onset psychiatric disorder. Such symptoms can also mark the progression of a dementia disease, or represent its prodromes. They can then be seen as behavioral or emotional manifestations reacting to changes: modification of the living environment, emergence of cognitive disorders or organic diseases [11].

### 2.3. *Main psychiatric pathologies of the elderly:*

#### o **Anxiety disorders:**

It is the most common psychiatric manifestation in the elderly. Most often secondary to a somatic condition, it can also be organized into a generalized anxiety disorder, with hypochondriacal worries and associated physical symptoms. Panic disorder and obsessive-compulsive disorder are rarer.

Agoraphobia can take an atypical form, that of the fear of falling, whether the subject has already fallen (post-fall syndrome) or not, and can lead to progressive confinement at home [12].

#### o **Mood disorders:**

Late-onset depressive states are common in the elderly, their prevalence is very variable due to an atypical, misleading, little-known and poorly evaluated clinical picture, showing a somatic, cognitive, anxious, temperamental, regressive, or delusional picture.

According to studies, there is a prevalence of major depressive states of 2 to 61% and of 20 to 45% of depressive symptoms.

The main symptoms found are sadness, psychomotor slowing, anhedonia, sleep, appetite and libido problems, fatigue, feeling of worthlessness, guilt, concentration problems, thoughts of death and suicidal ideation [13].

Sleep alters almost physiologically, by fragmenting its architecture and modifying the sleep-wake rhythm. Complaints around sleep are therefore very common.

The issue of suicide is major; in fact, the suicide rate after age 65 is double that of the general population with a success rate that increases with age. In France, a quarter of the 13,000 annual deaths by suicide concern people aged over 65 [14].

Unlike depressive disorders, bipolar disorders in the elderly are little described. Manic states have a more attenuated clinical expression compared to young subjects: hyperactivity and expansion of mood are less frequent, expansiveness and euphoria give way to irritability and aggressiveness, ideas of persecution replace ideas of grandeur. Cognitive disturbances with confusion and disorientation are common. Late-onset bipolar disorders should lead to an organic neurological or hormonal origin. The differential diagnosis between a manic episode and early frontotemporal dementia can be difficult.

The question of the presence or not of a dementia pathology in the face of late-onset depression must be asked. Late depressive symptoms can constitute the first manifestations of dementia, and be linked to the intimate perception of the deficit or promote an early revelation of dementia [15].

#### o **Psychotic disorders:**

The prevalence of psychotic disorders in the elderly varies between 3 to 30% depending on the studies and the countries, and their clinical presentation is heterogeneous. Associated with delusions and hallucinations are disorders of perceptual identification. Productive manifestations increase with cognitive decline but their organization is determined by the level of cognitive performance. The most common delusional themes are persecution, harm, despoliation and intrusion. Hallucinations are often florid and multimodal [15].

Psychotic disorders of sensory deafferentation are often overlooked: Ekbohm syndrome (delirium of skin infestation by parasites associated with very anxiety-provoking cenesthetic hallucinations), Charles Bonnet syndrome (visual hallucinations which occur during a drop in visual acuity) and paranoia of the deaf (auditory hallucinations in the hearing impaired).

Diogenes syndrome is frequently encountered in daily clinical practice. It is a behavioral disorder that leads people to accumulate waste of all kinds, to the point of limiting living space within the home and becoming life-threatening.

Finally, psychotic disorders can reveal a dementing illness or punctuate its progression. Their frequency and clinical specificity are different depending on the type of dementia. [16].

○ **Addictions:**

Addictions are not rare among the elderly but they are taboo and therefore underestimated. The most common are alcohol use disorders and anxiolytics, particularly benzodiazepines. They are often intertwined and comorbid with a mood or anxiety disorder [17].

○ **Neurocognitive disorders:**

These are disorders whose prevalence increases with age. The insane process of deconstruction does not only affect the intellectual register, it will affect affect, behavior, character, and which will gradually disintegrate. Psychiatric manifestations will punctuate the evolution of this process, and we can then encounter part of the semiology: anxiety, depression, addiction, psychotic disorders, etc. [18].

2.4. *Somatic comorbidities:*

Comorbidity is the rule rather than the exception among older adults, and is inextricably linked to functional decline across multiple measures with age. Comorbid psychiatric disorders are also common. For example, among people with Alzheimer's disease, between 15% and 29% meet the criteria for major depression and a total of 40% have at least mild depression. [18].

The association between depression and vascular damage in the brain has led to the description of vascular depression as a new disease. The second largest group of older adults with comorbid illnesses are those with comorbid depression and physical illness.

The impact of psychiatric symptoms on physical well-being has been well described in the literature, in particular depression is responsible for a decline in physical activity and social contacts, further increasing the risk of disability, which exposes the person to a risk of physical, psychological and social impairment [8].

**3. *Therapeutic issues:***

The use of psychotropic drugs can be considered one of the most important achievements of modern psychiatry. They helped alleviate the suffering of patients and normalize their behavior. But this observation must raise fears of consequences harmful ; for example, deliberate or inappropriate [abuse of these substances by the patient 19].

Polydrug consumption is quite common, this phenomenon is linked to the existence of complex polypathological pictures in the elderly. So Generally , the changes concern the absorption of drugs , the gastric pH value increases due to a reduction in acid secretions , this can lead to a change in dissolution. Gastric emptying time is shortened and intestinal transit is prolonged. Thus, the rate of absorption is slowed and bioavailability may be disrupted. [20].

Lean mass also decreases against an increase in fat mass. Blood flow is modified , body water decreases, as does albuminemia . Plasma concentrations of water-soluble drugs increase and there is a risk of accumulation of lipophilic molecules , particularly psychotropic drugs [21].

Reduction in hepatic mass and blood flow reduces the hepatic first-pass effect and increases the bioavailability of certain drugs . Enzymatic systems are less efficient. The glomerular filtration rate also decreases with age and the clinical importance depends on the therapeutic margin of the product. Dosage adjustments should be made planned accordingly [22].

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## **V. Conclusion :**

The acceleration of population aging currently represents a major challenge for our country, and much more for the decades to come , in a context of lack of specialized structures and human resources and profound societal changes .

It is therefore necessary to assess in depth the socio -economic and behavioral characteristics , the state of health, as well as access to health services, of the Moroccan elderly in order to implement intervention actions to remedy to the shortcomings raised .

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