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Clinical Profile of Women with Mental Disorders in Dakar Hospitals

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Abstract

Introduction: In Senegal, knowledge of the clinical profile of mental disorders in women has not been the subject of many studies, even though it is of vital importance to those involved in mental health. Thus, the aim of our study was to describe the clinical aspects of psychiatric disorders in women hospitalized at Fann. **Methodology:** This was a cross-sectional, retrospective, and descriptive study over a five-year period. We identified 402 cases that met the selection criteria. The data collection form provided information on aspects of the clinical profile of mental disorders, such as medical, surgical, gynecological, obstetrical and psychiatric history, instigator of the request for care, diagnosis, duration and number of hospitalizations. ICD-10 was used for the various pathologies identified. **Results:** Asthma was noted in 7% of patients, as was hypertension. Gynecological surgery was found in 43 patients (11%). Eight patients were menopausal (2%). The mean number of gestations was 2.09, with a standard deviation of 2.257 and extremes between 0 and 10 gestations. Patients with a history of abortion numbered 58 (14%). The decision to hospitalize the patients was made by 96% (384 patients) of those around them. Hetero aggression was the most recurrent reason for hospitalization (19%). Pathology group F20-29 (schizophrenia, schizotypal disorder, and delusional disorders) was the majority group. **Conclusion:** The clinical profile of the mentally ill woman in Dakar is a woman in her mid-forties who most often presents with a personal psychiatric history, and her hospitalization is prompted by hetero-aggression and/or logorrhea. She usually suffers from schizophrenia and related disorders. Hospitalization usually lasts between 11 and 20 days.

Keywords

Dakar, Clinical Profile, Mental Disorders, Woman

1. Introduction

A psychiatric disorder or mental disorder is defined by the DSM-V as a syndrome characterized by a clinically significant disturbance in an individual's cognition, emotional regulation and/or behavior, and which reflects the existence of a dysfunction in the psychological, biological and/or developmental processes underlying mental functioning [1].

Mental and behavioral disorders are not mere variations within the boundaries of "normality", but manifestly abnormal or pathological phenomena. A single episode of abnormal behavior or a short-lived mood disturbance is not in itself indicative of a mental or behavioral disorder. To be considered as such, abnormalities must be permanent or repeated, and cause suffering or constitute a handicap in one or more areas of everyday life.

Mental and behavioral disorders manifest themselves through specific symptoms and signs, and if left unchecked, generally follow a predictable natural course. Mental suffering is not necessarily a mental disorder. It may be due to personal or social difficulties; if all the basic criteria of a well-defined pathology are not met, it is not necessarily a mental disorder. For example, there is a difference between depressed mood and full-blown depression.

Mental disorders are currently a public health problem [2], which is why mental health specialists are carrying out an increasing number of studies on various aspects. Good prevention through awareness-raising is also essential. Mental health professionals, as well as patients and their families, need to be provided with reliable information about mental disorders. Such information may concern clinical aspects of undeniable importance and evolve over time. For healthcare professionals and political decision-makers, knowledge of the clinical profile of patients and inpatients enables them to match the demand for care with the supply, and to identify training and infrastructure needs in developing countries [2]. However, the profile resulting from these clinical aspects can vary from one country to another, as it is sensitive to changes in people's lifestyles and, above all, to the rapid evolution of stress in our societies. In Africa, and particularly in Senegal, the clinical data needed to draw up a profile are rare, especially when it comes to women.

Worldwide, studies of mental disorders in women are few and far between, and very rare in Africa, and even in Senegal. Mental disorders rank third in morbidity among women and seventh among men [3]. Indeed, the multiple roles assumed by women expose them more than other members of the community to the risk of mental or behavioral disorders. In addition to their duties as wives and mothers, women assume a disproportionate share of the responsibilities associated with upbringing and caregiving. They are becoming an increasingly essential part of the workforce, and in a quarter to a third of households, they are the main source of income [4]. In addition to the pressures of their growing and often contradictory roles, there is considerable gender discrimination, usually accompanied by poverty, hunger, malnutrition, excessive work, and domestic

and sexual violence. Not surprisingly, they suffer more than men from mental disorders [4].

With this background, the aim of our study is to describe the clinical profile of women with mental disorders hospitalized at the National University Hospital Center of Fann (CHNUF) over a five-year period from January 2017 to December 2021.

2. Methodology

2.1. Study Location

The Clinic Moussa Diop is the main section of the Department of Psychiatry and Medical Psychology at the CHNUF in Dakar, Senegal. It is intended for inpatient treatment of psychiatric disorders in a phase of imbalance, and for extern follow-up of patients already hospitalized. Opened in 1956, the clinic is an open type. The clinic comprises 7 divisions, with admissions based on bed availability for first-time inpatients. For a second or subsequent hospitalization, patients return to the division of their first hospitalization, unless a bed is unavailable.

2.2. Study Methods

2.2.1. Type and Period of Study

We conducted a cross-sectional, retrospective, descriptive study over a five-year period, from January 1, 2017, to December 31, 2021.

2.2.2. Study Population

Our study population concerned women hospitalized in the psychiatric department of CHNUF.

1) Inclusion criteria

Women hospitalized for a psychiatric reason and registered during the period January 2017 - December 2021 were included in our study.

2) Exclusion criteria

Women hospitalized with incomplete medical records were excluded from the study. These were medical records that did not provide information on:

- Biography and family dynamics to record a significant life event;
- Epidemiological data such as age and locality.

2.2.3. Data Collection

The first stage took place in the head nurse's office, where we were able to use the department's register. This provides information on all hospital admissions. In this way, we identified 659 medical records of women hospitalized during our study period. We then went to the various divisions (7 in number) to collect and examine the medical records.

The data collection form provided information on aspects of the clinical profile, such as medical, surgical, gynecological, obstetrical, and psychiatric history, instigator of the request for care, diagnosis, duration, and number of hospitalizations. ICD-10 was used for the various pathologies found.

2.2.4. Data Entry and Processing

Results are presented as means and standard deviations for quantitative variables, and as percentages for qualitative variables. Most graphs were produced using Excel 2016.

2.2.5. Ethical Considerations

We obtained the authorization of the Head Physicians of the various divisions of the Psychiatry Department to carry out this study. The data were collected anonymously and kept confidential by those in charge of the study.

3. Results

3.1. Number of Medical Records Studied

We identified 659 women's medical records in the hospitalization register. After review, only 402 patient files met the selection criteria.

3.2. Age

In our study, the average age of patients was 37 ± 13 years, with extremes ranging from 16 to 74 years.

3.3. Clinical data

3.3.1. Medical and Surgical History

1) Medical history

No medical history was found in 66% of patients (Figure 1). Asthma was noted in 7% of patients, hypertension in 7%, diabetes in 4% and epilepsy in 3% (Figure 1).

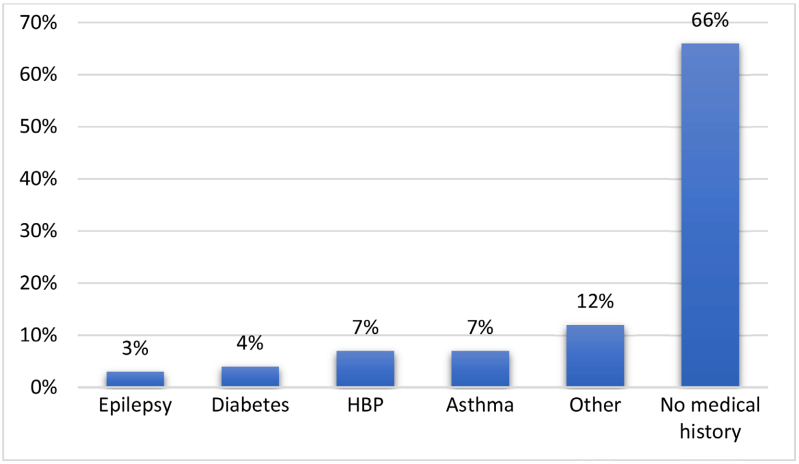

Figure 1. Distribution of patients according to medical history (N = 402).

2) Surgical history

In 335 patients (83%), no surgical history was noted (Table 1). Gynecological surgery was found in 43 patients (11%) (Table 1).

3.3.2. Gyneaco-Obstetrical History

1) Gyneacological history

Menopause was found in eight patients (2%) (Table 2). Uterine fibroids were noted in six patients (1%), mammary cysts in four patients (1%) and ovarian cysts in three patients (1%) (Table 2).

Table 1. Distribution of patients according to different surgical histories (N = 402).

Surgical history	Number	Percentage
Other	24	6%
Gyneacological surgery	43	11%
None	335	83%
Total	**402**	**100%**

Table 2. Distribution of patients according to gynaecological history (N = 402).

Gyneacological histtory	Number	Percentage
Ovarian cyst	3	1%
Breast/mammary cyst	4	1%
Uterine fibroid	6	1%
Menopause	8	2%
Other	16	4%
None	365	91%
Total	**402**	**100%**

2) Obstetrical history

The mean number of gestations was 2.09 with a standard deviation of 2.257 and extremes between 0 and 10 gestures.

The mean number of pares was 1.86, with a standard deviation of 2.154 and extremes between 0 and 10 pares.

The mean number of abortions was 0.22, with a standard deviation of 0.689 and extremes between 0 and 7 abortions.

The patients in our study were 36% nulligravida, 15% primigravida and 49% multigravida (Table 3).

Table 3. Distribution of patients according to gravidity (N = 402).

Gravidity	Number	Percentage
Nulligravida	145	36%
Primigravida	61	15%
Multigravida	196	49%
Total	**402**	**100%**

In terms of parity, 40% of patients were nulliparous, 15% primiparous and 45% multiparous (Table 4).

Table 4. Distribution of patients according to parity (N = 402).

Parity	Number	Percentage
Nulliparous	161	40%
Primiparous	59	15%
Multiparous	182	45%
Total	**402**	**100%**

Patients with a history of abortion numbered 58 (14%): 39 patients had a single abortion (10%); 14 patients had 2 (3%) and 5 patients had had more than two abortions (1%) (Table 5).

Table 5. Distribution of patients by number of abortions (N = 402).

Number of abortions	Number	Percentage
0	344	86%
1	39	10%
2	14	3%
>2	5	1%
Total	**402**	**100%**

3.3.3. Psychiatric History

A personal psychiatric history was found in 68% of patients (Figure 2). Family psychiatric history was noted in 43% of patients (Figure 2).

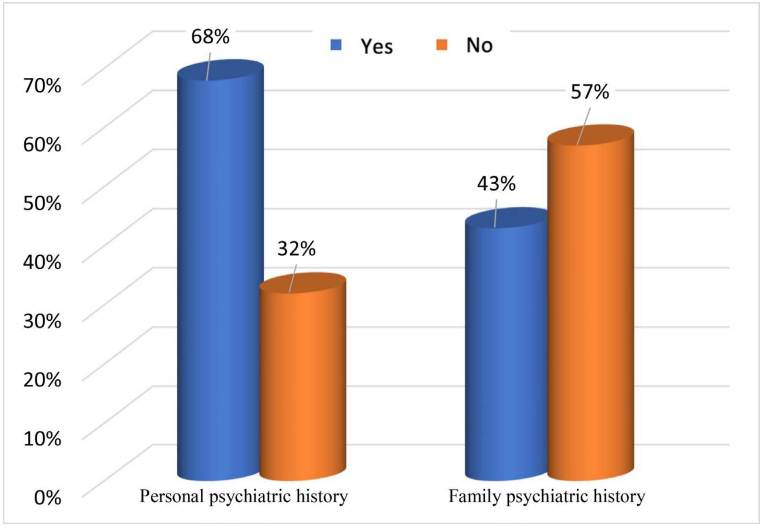

Figure 2. Distribution of patients according to psychiatric history (N = 402).

3.3.4. Instigator of Care

The decision to hospitalize the patients was made by 96% (384 patients) of their family and friends. Eighteen patients (4%) decided on their own to be hospitalized.

3.3.5. Duration of Symptoms

Almost half the patients had a duration of symptomatology of between one and four weeks (42%) (Figure 3). The remaining 19% lasted more than twenty-four weeks, and 17% less than a week (Figure 3).

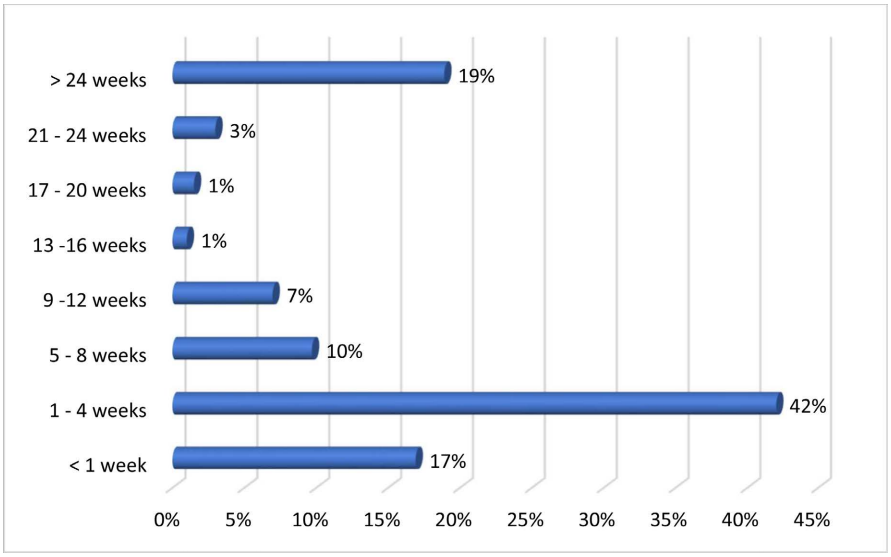

Figure 3. Distribution of patients according to duration of symptoms (N = 402).

3.3.6. Reasons for Hospitalization

Heterogeneous aggressiveness was the most recurrent reason for hospitalization (19%) followed by logorrhea at 16% then food restriction at 9%. Soliloquy and attempted suicide were found respectively in 4% and 3% as reasons for hospitalization. Various other reasons for hospitalization were 48% (Table 6).

Table 6. Distribution of patients by reason for hospitalization.

Reasons for hospitalisation	Number	Percentage
Suicide attempt	13	3%
Soliloquy	17	4%
Food restriction	36	9%
Logorrhea	65	16%
heterogeneous aggressiveness	77	19%
Other	194	48%
Total	**402**	**100%**

3.3.7. Diagnosis

Pathology groups F20 - F29 (schizophrenia, schizotypal disorder, and delusional disorders) and F30 - F39 (mood [affective] disorders) were the majority groups in our study, with 38% and 34% respectively. Pathology groups F40 - F48 (Neurotic, stress-related and somatoform disorders) and F60 - F69 (Disorders of adult personality and behavior) were as follows, respectively 16% and 5%. Other

women had pathologies in the following groups: F10 - F19 (Mental and behavioral disorders due to psychoactive substance use) in 4%, F50 - F59 (Behavioral syndromes associated with physiological disturbances and physical factors) in 3% and F00 - F09 (Organic, including symptomatic, mental disorders) in 1% (Figure 4).

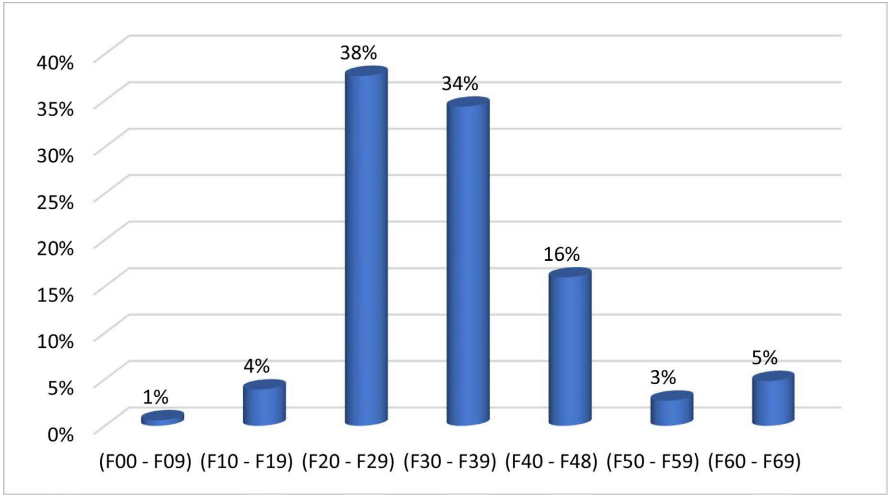

Figure 4. Distribution of patients by ICD-10 diagnosis.

3.3.8. Length of Hospital Stay

The duration of hospitalization varied from zero to over sixty days (Figure 5). Patients whose hospitalization lasted between 11 and 20 days were more numerous with a percentage of 42%; 27% had between 21 and 30 days of hospitalization; 17% and 14% had respectively hospitalization durations of over 30 days and between 0 and 10 days (Figure 5).

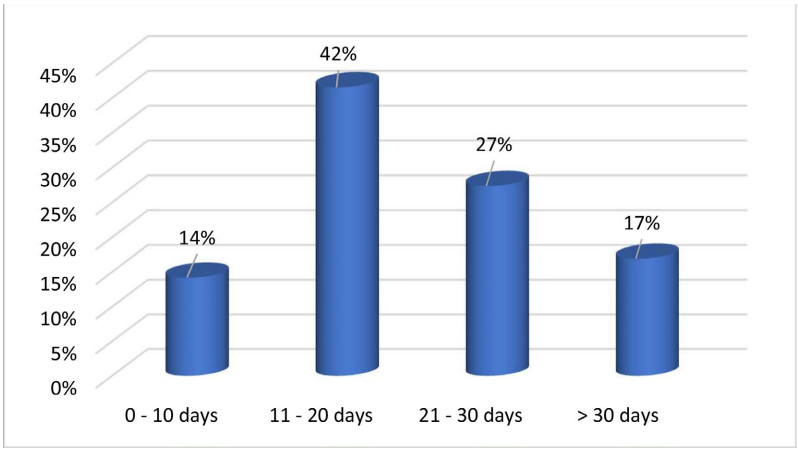

Figure 5. Distribution of patients according to duration of hospitalization (N = 402).

3.3.9. Number of Hospitalizations during the Study Period

The mean number of hospitalizations was 1.19, with a standard deviation of 0.478 and extremes between 1 and 4 hospitalizations.

The number of patients with one hospitalization was 339 (84.3%), and 52 women

had two hospitalizations (12.9%). We also found nine patients with three hospitalizations (2.2%) and two patients with four hospitalizations (0.5%) (Figure 6).

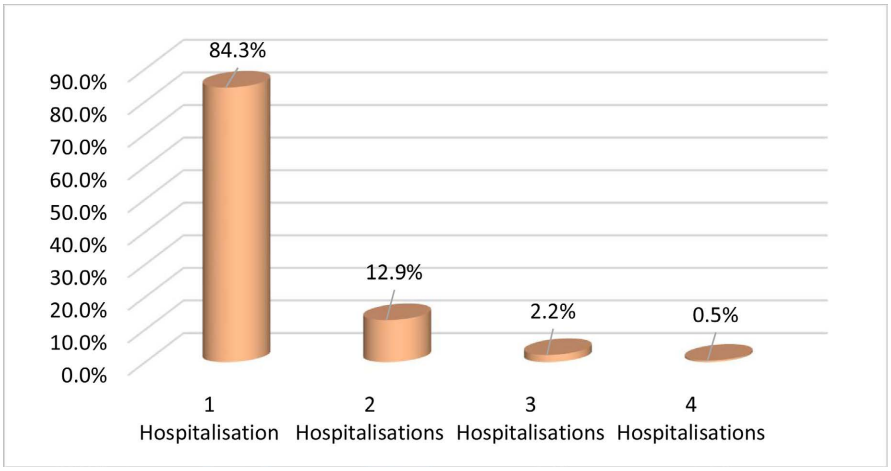

Figure 6. Distribution of patients according to number of hospitalizations during the study period (N = 402).

3.3.10. Treatment Methods

Treatment consisted mainly of neuroleptics in 91% of cases, anxiolytics in 83%, hypnotics in 33%, and mood stabilizers in 32%. Other therapeutic classes were used, such as antiparkinsonian correctors in 22% of cases and antidepressants in 19% of cases. Psychotherapy was used in 14% of cases (Figure 7).

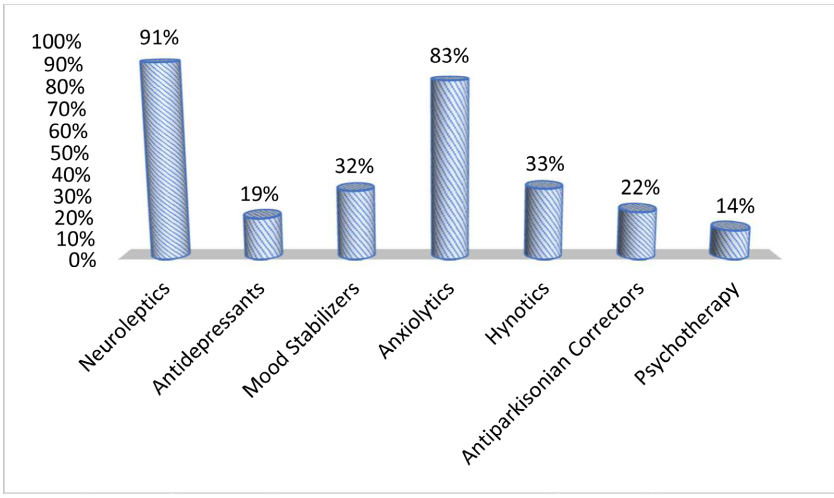

Figure 7. Distribution of patients according to therapeutic aspects (N = 402).

4. Discussion

4.1. Clinical Data

4.1.1. History

1) Medical history

The most common medical histories in our study population were asthma (7%), hypertension (7%), diabetes (4%) and epilepsy (3%).

In our study, 7% of patients were asthmatic. Adams *et al.* [5] demonstrated that psychological distress was more common in asthmatics (17.9% vs. 12.2%) in their study population, and a higher proportion of asthmatics were at greater risk of anxiety or depression (40.5% vs. 31.2%). These results, from a representative sample of the population, showed that psychological distress and a diminished sense of control are common in asthma. The study by Vamos *et al.* [6] found that 25% - 50% of asthmatics have depressive symptoms and around 20% - 35% anxiety. The survey by Scott *et al.* [7], meanwhile, reported that the age- and sex-adjusted risk of mental disorders in asthmatics compared with non-asthmatics was 1.6 for depressive disorders, 1.5 for anxiety disorders and 1.7 for alcohol use disorders. This study shows a predominance of women.

Psychiatric comorbidities such as anxiety or depressive disorders can be caused by the adaptive failures or simply the sometimes severe complications of asthma. Asthma sufferers live with immeasurable stress [8]. It has been described that patients most often develop anxiety at the thought of having an asthma attack. This anxiety can give rise to other disorders such as post-traumatic stress disorder [9].

Depressive syndromes are not uncommon in the lives of asthma patients and occur at higher rates than in the general population. Depression and asthma have a complex reciprocal relationship, with each disease potentially favoring the other.

Studies show that asthmatics develop a personality called "alexithymia" [10] [11] [12] [13]. Sifneos [14] defines alexithymia as a deficit of affect: "a poor fantasy life resulting in a utilitarian form of thinking, a tendency to use action to avoid conflict and stressful situations, a marked restriction in the expression of emotions and particularly a difficulty in finding words to describe one's feelings". Alexithymia consists of "an inability to make connections between emotions and the ideas, thoughts and fantasies that usually accompany them".

As Janson *et al.* [15] put it, the psychological consequences of subjective symptom perception, alexithymia, coping strategies, depression and anxiety are frequently encountered, at all levels of disease severity or control.

Arterial hypertension was found in 7% of patients. Studies show a correlation between arterial hypertension and cognitive impairment [16]. Analysis of the results of Polishchuk *et al.* [17] investigation of patients with hypertension and anxiety and depressive disorders using the Spielberger-Khanin Anxiety Inventory showed a moderate (30.9%) to high (69.1%) level of anxiety. Major anxiety was confirmed in 74.6% of patients in this study, and moderate in 25.5%, with a significantly higher distribution in women ($p < 0.05$).

A study carried out in Ghana and Nigeria [18] showed a high prevalence of depression in patients with hypertension: 41.7% in Ghana and 26.6% in Nigeria, with a predominance of women. In their study assessing the risk factors for developing depression in patients with hypertension, Rantanen *et al.* [19] identified female gender. In this study, depression was found to be present in 14.1% of patients diagnosed with hypertension (compared with 8.7% of non-hypertensive patients).

Hypertension is also closely correlated with cognitive loss and dementia [20].

Indeed, hypertension not only puts patients at risk of cognitive decline, but also of dementia. Thus, with increasing age, hypertension is the main risk factor for vascular dementia, and several epidemiological studies also indicate a relationship between blood pressure and the early onset of Alzheimer's disease.

In our study, 4% of our patients were diabetics. In the study by Chen *et al.* [21], Cox regression analysis revealed increased risk ratios for schizophrenia (12.28), bipolar disorder (13.80), major depressive disorder (10.41), ASD (14.52) and ADHD (8.19) in patients with diabetes compared with controls.

Psychiatric disorders and psychological problems are common in patients with diabetes [22]. Indeed diabetes, a condition which places the responsibility for management firmly on the individual, has a serious impact on daily life and can have psychosocial and emotional consequences [23]. Psychological problems such as depressive symptomatology are much more common in people with diabetes than in those without [23]. This study suggested that women with diabetes may be more likely to suffer from depression than their male counterparts [23]. Depression is doubled in diabetics [22]. Other psychiatric disorders with a higher incidence in diabetes are dementia, eating disorders, anxiety disorders, and borderline personality disorder [22].

Sample surveys have also shown that mood and anxiety disorders occur with slightly higher frequency in people with diabetes than in those without [24]. In these surveys, the prevalence of major depression in people with diabetes was lower in the general population than in those with mental disorders.

We can say that chronic diseases have an impact on mental health, and women are the most affected in both cases. And alexithymia, defined above, is the personality that most often qualifies them [10] [14].

2) Gyneaco-obstetrical history

Menopause was found in 2% of patients. In the literature, it has been described that menopause is accompanied by changes that in many cases lead to mental disturbance. Studies by El Khoudary *et al.* [25] and Minkin [26] have described that menopause is accompanied by mental disorders such as depression, anxiety, and cognitive impairment. They state that if a woman has a history of depression, the transition to menopause will certainly lead to a recurrence of symptoms.

The maximum number of gestations in our study was 10, with an average of 2.09 plus or minus 2.257 gestations per woman. This result concurs with that found by Ouédraogo *et al.* [27] who found 11 as the maximum number of gestations with an average of 3.8 plus or minus 2.6 pregnancies per woman. The value of women in African society is measured by the number of children they provide for society. It should also be remembered that in the African context, pregnancy, however desired, is a source of anxiety [28]. This anxiety is the starting point for the psychiatric disorders that ensue.

Fifty-eight cases of abortion were found among the patients in our study, *i.e.*, 14%. A study carried out in Burkina Faso found eighteen cases of abortion [27]. Salifou *et al.* [29] found twelve cases of abortion (5.50%). Abortion, considered

as bereavement, can have the same consequences on a woman's mental health. Depression is the most marked.

3) Psychiatric history

In our study, 68% of patients had a personal psychiatric history and 43% a family psychiatric history. Our results are like those of Coulibaly *et al.* [30] with 69.3% and Bruffaerts *et al.* [31] with 60%. Koné *et al.* [32] reported the presence of a psychiatric history as a factor in readmission to a psychiatric hospital. Patients are consulted more often after failure of traditional treatments, hence the presence of a psychiatric history due to the age of the disorders.

An almost similar rate of family psychiatric history was found in Marone's study [33]. This percentage could be explained by the heredity found in psychiatric disorders. This heredity, combined with environmental factors, leads to the appearance of psychiatric disorders.

4.1.2. Reasons for Hospitalization

The main reasons for hospitalization were heterogeneous aggressiveness (19%), logorrhea (16%), dietary restriction (9%), soliloquy (4%) and suicide attempts (3%). The study by Coulibaly *et al.* [30] used agitation, aggression, drug use, runaways/errancies, suicide attempts and behavioral disorders as reasons for consultation. It appears that the noisiest symptoms are at the forefront of the reasons for consultation. This most often corresponds to a break with traditional therapy, which has its limitations at these stages of the illness. Frustrating and noiseless symptoms are always controlled by relatives and traditional therapists, which explains the delay in seeking care in modern medicine. For heterogeneous aggressiveness, the most frequent reason for consultation, it can be explained by the fact that the most frequent pathologies found in the hospitalizations were schizophrenic disorders and mood disorders. It is confirmed that these two groups of pathologies are likely to generate auto aggressive and hetero aggressive manifestations, and in the same proportions [34]. On the other hand, regarding the institutional environment, heterogeneous aggressiveness should prompt us to reflect on the configuration of the inpatient wards on the department's 7 units. These are usually open, with doors that don't lock or are made of fragile wood, which some patients break easily.

Salifou *et al.* [29] found suicide attempts at a rate of 5.05%. They are considered a cry for help for women [35]. The low rate of suicide attempts compared to the West can be explained by the very strong faith of the population. This faith is a protective factor against suicides and suicide attempts. On the other hand, African solidarity and the extended African family provide additional protection for the individual in distress.

4.1.3. Diagnosis

Pathology group F20 - F29 (schizophrenia, schizotypal disorder, and delusional disorders) was the main diagnostic group in our study population (38%). It was followed by the F30 - F39 pathology group (mood [affective] disorders) with a

rate of 34%. These results concur with those of Coulibaly *et al.* [30], who also found a predominance of these two groups.

However, these results contradict the literature, which finds a predominance of the F30 - F39 group in women [36] [37] [38] [39].

Symptoms linked to the F20 - F29 sphere (schizophrenia, schizotypal disorder, and delusional disorders), which are difficult to control by those around them, are more likely to prompt psychiatric consultations. This hypothesis could explain their high prevalence in hospitalization. In Africa, and particularly in Senegal, schizophrenia is often treated too late, leading to social and professional exclusion. This serious consequence motivates families at this stage of the disease to rely more and more on modern medicine, because under these conditions, women are no longer able to perform their multiple functions as wives, mothers, and workers.

Mood disorders have symptoms that are less disruptive to the family environment. At first, family and friends think of supernatural causes and turn to traditional therapists or prayer centers. It is only when these various means fail that a psychiatric consultation is considered.

4.2. Therapeutic Methods

Neuroleptics were the most prescribed drugs, as most women hospitalized had pathologies in the F20 - F29 group, including schizophrenia. However, these are mostly first-generation neuroleptics, which explains why parkinsonian correctors are prescribed at a rate of 22% to reduce their side effects. Currently, second-generation neuroleptics are mostly unavailable in Senegal and too expensive for the middle and lower economic classes.

5. Conclusions

In our study, the clinical profile of the mentally ill woman in Dakar is close to forty. She most often presents with a personal psychiatric history, and her hospitalization is prompted by hetero-aggression and/or logorrhea. She usually suffers from schizophrenia and related disorders. Hospitalization usually lasts between 11 and 20 days.

Knowledge of the clinical profile of women with mental disorders enables us to identify the organizational and structural needs in terms of institutions and training, which are often country-specific, especially in the case of developing countries. It also enables the supply of care to be adapted to demand.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix: Data Collection Form

1. Record number:
2. Identity (initials): ……..
3. Age (years): ……

Clinical Data

4. Medical history: ……
5. Surgical history: ……
6. Gyneacological history: ……..
7. Obstetrical history:
   - Gravidity: …… - Parity: …… - Abortions: ……
8. Psychiatric history:
   - Personal psychiatric history ☐ Oui ☐ Non
   - Family psychiatric history ☐ Oui ☐ Non
9. Number of hospitalizations during the study period:
   ……..……..……
10. Reasons for hospitalization:
    - ☐ Psychomotor agitation
    - ☐ Heterogeneous aggressiveness
    - ☐ Food restriction
    - ☐ Suicide attempt
    - ☐ Soliloquy
    - ☐ Logorrhea
    - ☐ Other (specify):……
11. Duration of symptoms:
    - ☐ <1 week
    - ☐ 1 - 4 weeks
    - ☐ 5 - 8 weeks
    - ☐ 9 - 12 weeks
    - ☐ 13 - 16 weeks
    - ☐ 17 - 20 weeks
    - ☐ 21 - 24 weeks
    - ☐ >24 weeks
12. Diagnosis (ICD-10):
    - ☐ (F00 - F09) Organic, including symptomatic, mental disorders
    - ☐ (F10 - F19) Mental and behavioural disorders due to psychoactive substance use
    - ☐ (F20 - F29) Schizophrenia, schizotypal and delusional disorders
    - ☐ (F30 - F39) Mood [affective] disorders
    - ☐ (F40 - F48) Neurotic, stress-related and somatoform disorders
    - ☐ (F50 - F59) Behavioural syndromes associated with physiological disturbances and physical factors
    - ☐ (F60 - F69) Disorders of adult personality and behaviour
    - ☐ (F70 - F79) Mental retardation
    - ☐ (F80 - F89) Disorders of psychological development
    - ☐ (F90 - F98) Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
    - ☐ (F99) Unspecified mental disorder
13. Duration of hospitalization:
    - ☐ 0 - 10 days
    - ☐ 11 - 20 days

☐ 21 - 30 days

☐ >30 days (specify exact duration): ……

14. Specify the therapeutic methods used: ……..……