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Epidemiological Profile of Women with Mental Disorders in Hospital in Dakar

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Abstract

Introduction: Women are currently more likely than men to suffer from mental health problems. The prevalence of mental health problems among women is also increasing. However, few studies conducted in Africa provide epidemiological data on women. The aim of this study was to describe the epidemiological profile of women with mental health problems in Dakar. **Methodology:** This was a cross-sectional, retrospective, descriptive study over a five-year period, from 1 January 2017 to 31 December 2021. It concerned all women hospitalised for psychiatric reasons at the Psychiatry Department of Fann Hospital, Dakar, Senegal. The data collection form provided information on the sociodemographic profile, *i.e.*, age, current address, marital status, ethnicity, religion, level of education, professional activity, and use of psychoactive substances. **Results:** The prevalence of mental disorders was 34.9% and concerned the following ICD-10 pathology groups [F00 - 09], [F10 - F19], [F20 - F29], [F30 - F39], [F40 - 48], [F50 - F59] and [F60 - F69]. The mean age of the patients was 37 years, with a standard deviation of 13 and extremes from 16 to 74 years. Most patients were unmarried (56%). Among the married patients, the monogamous regime was in the majority in our study: 56% compared with 44% for the polygamous regime. Women had to attend French school in 74% of cases. In our study, 32% of patients had reached university level. The majority were unemployed (67%). The notion of mourning was found in 214 patients (30.2%). The birth of one or more children marked the lives of 184 patients (26%). Divorce was noted in 103 patients (14.5%). Marital conflicts were experienced by 94 patients (13.3%). Twenty percent of the patients had used psychoactive substances. **Conclusion:** The epidemiological profile of a woman with a mental disorder in Dakar is that of a single woman in her forties who had attended university and was a housewife. She does not use psychoactive substances and has experienced at least one mourning in her life.

1. Introduction

Mental health is crucial to the well-being of individuals, societies and countries. For developing countries, it has been neglected for too long and needs to be seen in a new light. Nearly 20% of all patients seen by primary healthcare professionals have one or more mental disorders. Similarly, at least one person in one in four families is at risk of suffering from a mental disorder [1]. Today, it also appears that mental health problems are on the increase, particularly among women. Most studies show that mental disorders are on average more common in women than in men [1].

According to a whole series of studies, women are much more affected by mental health problems than men [2] [3] [4] [5]. In fact, one in five women (19%) suffer from a common mental disorder compared with one in eight men (12%) [2]. Both community studies and studies of treated populations show that women suffer from mental health problems much more frequently than men. This was the case in a study of hospital populations living in the south of Senegal, where Koundoul and al. obtained a percentage of 52.7% for women compared with 47.3% for men [6]. In another study from the same locality, the data concerned only one specific pathology—schizophrenia [7].

It is important to focus on women's vulnerability to mental disorders. It is closely related to their marital status, their professional activity and the roles they play in society [8] [9]. Women are said to experience a higher frequency of critical events in their lives [10]. What's more, they process and interpret stress and emotions differently from men: they have more ruminations, intense emotions, psychosomatic symptoms and a need for social support. The increase in chronic stress in our societies only exacerbates their vulnerability, including their physical vulnerability [11]. In addition, in traditional African environments, precarious socio-economic conditions and the weight of tradition, which make women dependent and submissive, seem to us to be additional risk factors for psychiatric morbidity.

In our context, and more particularly in Senegal, women have been maintained in a status of inferiority in relation to men [12]. Thus, women are confined to the status of submissive companions to men, their roles being reduced to procreation and bringing up children; their opinion counts for very little, even on vital issues that concern them directly, such as marriage, sexuality, pregnancy, etc. [12]. The risk factors and psychiatric disorders in women are many and varied.

However, there are very few studies on the epidemiology of mental disorders in women worldwide, and very few in Africa. In Senegal, there are very few studies on women's mental health.

The objectives of this study were therefore to:

- assess the prevalence of women hospitalised;
- determine the socio-demographic characteristics;
- identify vulnerability factors among women hospitalised in the Psychiatry Department of the National University Hospital Center of Fann (CHNUF).

2. Methodology

2.1. Setting of the Study

Our study was carried out at the Clinique Moussa Diop, the psychiatry and medical psychology inpatient department of the CHNUF in Dakar, Senegal. This department was opened in 1956. The clinic has 7 units, with admissions subject to bed availability for first-time admissions. For a second or subsequent admission, patients are returned to the unit where they were first admitted, unless a bed is unavailable.

2.2. Study Methods

2.2.1. Type and Period of Study

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

2.2.2. Study Population

Our study population consisted of women hospitalised with an ICD-10 diagnosis in the psychiatric department of the CHNU de Fann.

2.2.3. Inclusion Criteria

The study concerned all women hospitalised for psychiatric reasons and registered during the period January 2017-December 2021.

2.2.4. Exclusion Criteria

Women hospitalised with 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.

2.2.5. Data Collection

The ward register enabled us to identify the various patients hospitalised during our study period. We then went to the various divisions, of which there were 7, to collect the medical records.

We drew up a data collection form to fill in the data relating to the sociodemographic profile, *i.e.* age, current address, marital status, ethnicity, religion, level of education, occupation and use of psychoactive substances.

2.2.6. Data Entry and Processing

The results are presented in the form of averages and standard deviations for quantitative variables and percentages for qualitative variables. Most of the graphs were produced using Excel 2016.

2.2.7. Ethical Considerations

We were able to carry out this study with the permission of the doctors in charge of the various divisions of the psychiatry department. The data were collected anonymously and kept confidential.

3. Results

3.1. Number of Medical Reports Analyzed

Initially, our sample consisted of 659 patients' medical reports. After applying the exclusion criteria, we obtained a final sample of 402 patient records, *i.e.*, 61%.

3.2. Prevalence

Between 01 January 2017 and 31 December 2021, the Moussa Diop Clinic of the Psychiatry and Medical Psychology Department of the CHNUF recorded 2870 hospitalisations; 1002 of the hospitalised patients were female. The prevalence rate of mental disorders among women in the department was 34.9%.

3.3. Sociodemographic Characteristics

3.3.1. Age

The mean age of the patients was 37 years, with a standard deviation of 13 and extremes from 16 to 74 years. The median was 35 years. The age groups [21 - 30] and [31 - 40] were the most represented, with 27.9% and 28.6% respectively (**Figure 1**).
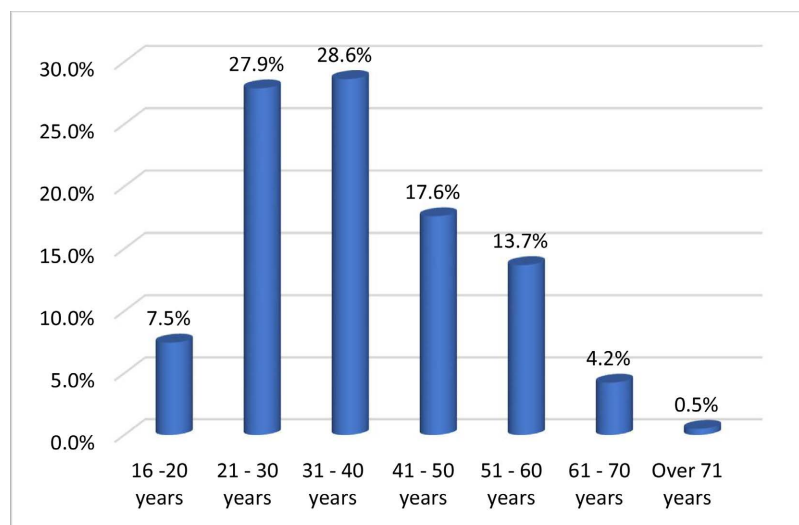
Figure 1. Age distribution of patients (N = 402).

3.3.2. Current Location

Most patients live in the Dakar region (79.9%) (**Table 1**). Ten of the fourteen regions of Senegal were included in our study: Dakar (79.9%), Thiès (4%), Diourbel (3%), Louga (3%), Saint-Louis (2.7%), Matam (2%), Kaolack (1.7%), Fatick (1%), Tambacounda (0.7%), and Ziguinchor (0.2%) (**Table 1**). 1.6% of our study population came from other countries such as Gambia (0.7%), Mauritania (0.5%),

Guinea Conakry (0.2%) and the USA (0.2%) (Table 1).

Table 1. Distribution of patients by current location (N = 402).

	Address	Number	Percentage
	Dakar	321	79.9%
	Saint-Louis	11	2.7%
	Tambacounda	3	0.7%
	Louga	12	3.0%
Senegal	Thiès	16	4.0%
	Fatick	4	1.0%
	Diourbel	12	3.0%
	Kaolack	7	1.7%
	Matam	8	2.0%
	Ziguinchor	1	0.2%
	Gambia	3	0.7%
Other countries	Guinea Conakry	1	0.2%
	Mauritania	2	0.5%
	USA	1	0.2%
Total		**402**	**100%**

3.3.3. Marital Status and Marital Regime

Most patients were unmarried (56%) [single (32%), divorced (20%) and widowed (4%)] compared with 44% of married women (Figure 2).
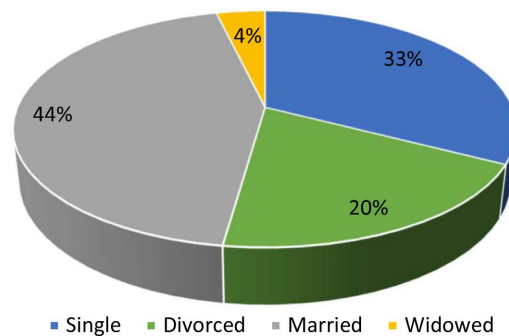
Figure 2. Distribution of patients by marital status (N = 402).

The marital regime was only specified for 104 of the married patients. The monogamous regime was in the majority in our study: 56% compared with 44% for the polygamous regime.

3.3.4. Ethnicity

Our study population was predominantly Wolof (33.3%), followed by Haalpular (22.9%) and Serer (11.4%). The 'other' category was represented by other ethnic groups in Senegal (the Mandingues, the Laobés, the Mandjagues, the Mankagnes,

etc.) and foreign ethnic groups (the Soussous from Guinea Conakry, the Hadja-raïs from Chad, the Kabyes from Togo, the Outats from Mauritania, the Sénoufos from Côte d'Ivoire, the Tékés from Congo and the Yorubas from Nigeria). In our study, ethnicity was not provided for 45 patients (11.2%) (Figure 3).
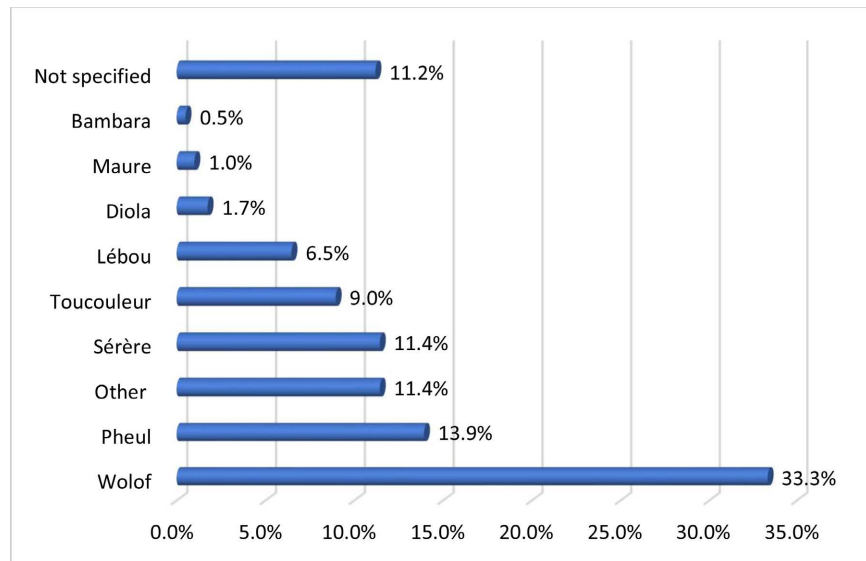

Figure 3. Distribution of patients by ethnic group (N = 402).

3.3.5. Religion

Most patients were Muslim (91%). The remaining 9% were Christian.

3.3.6. Education

In our study, school attendance was recorded for 344 patients (86%). The women attended French schools in 74% of cases. Only 5% of patients did not attend school (Table 2).

Table 2. Distribution of patients by type of education (N = 402).

Education	Number	Percentage
Koranic school	28	7%
French school	296	74%
Not specified	58	14%
Not enrolled in school	20	5%
Total	**402**	**100%**

- Level of education at French school:

In our study, 32% of patients had reached university level and 26% had reached primary level. Junior and secondary education represented 22% and 21% respectively (Figure 4).

3.3.7. Professional Activity

In our study, most patients were unemployed (67%).
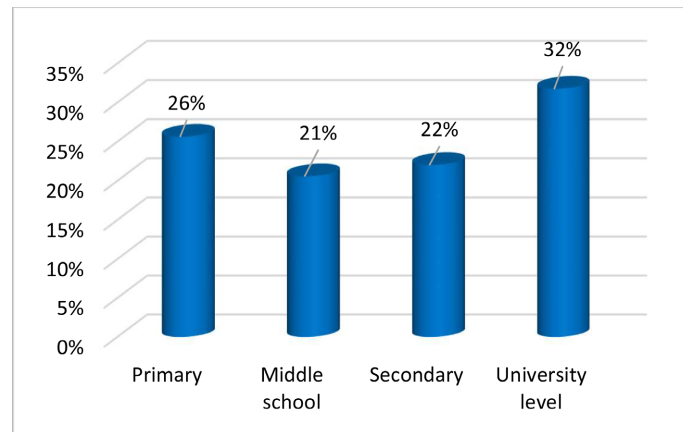
Figure 4. Distribution of patients by level of education (N = 296).

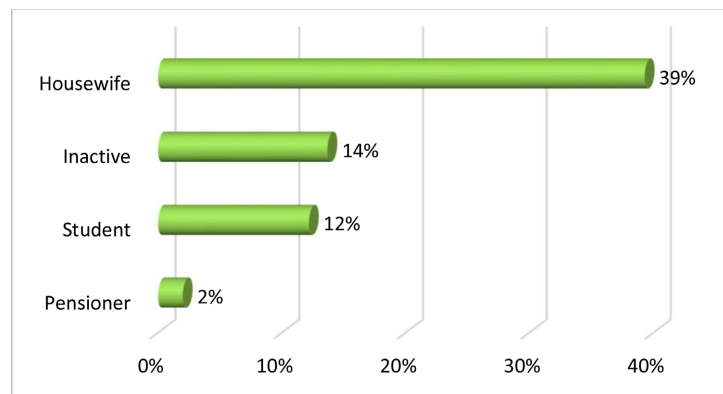Of the unemployed patients, 39% were housewives. Pupils and students accounted for 12% of patients. 14% of these patients were not in employment (**Figure 5**).

Figure 5. Distribution of unemployed patients (N = 270).

A total of 132 patients (33%) were in employment (**Table 3**). Occupations included administrative staff (17%), teaching staff (12%), domestic staff (8%), tailor (8%), nursing staff (6%), tradeswomen (5%), hairdressers (5%), restaurant staff (2%) and hotel staff (2%) (**Table 3**).

Hairdressing salon staff (5%), restaurant staff (2%), hotel staff (2%) (**Table 3**).

3.3.8. Significant Life Events
The notion of mourning was found in 214 patients (30.2%). The birth of one or more children marked the lives of 184 patients (26%). Divorce was noted in 103 patients (14.5%). Marital conflicts were experienced by 94 patients (13.3%). Fosterage was noted in 46 patients (6.5%). Other significant life events included re-marriage (3.7%), partner abandonment (2.4%), arranged/forced or early marriages (1.7%), job loss (1.4%) and sexual abuse (0.4%).
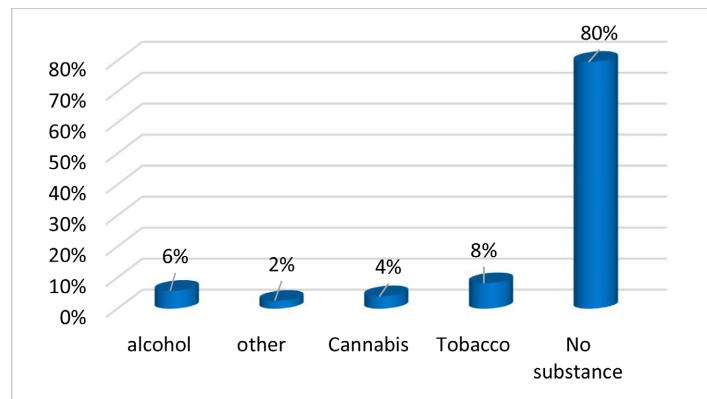
3.3.9. Use of Psychoactive Substances
In our study, 80% of patients did not use psychoactive substances (**Figure 6**). 20% of patients had used psychoactive substances: 8% for tobacco, 6% for alco-

hol and 2% for other substances such as opiates (morphine, codeine, tramadol), cocaine, benzodiazepines, and hard drugs (**Figure 6**).

Table 3. Distribution of patients by occupation (N = 132).

Professional activities	Number	Percentage
Caring staff	8	6%
Teaching staff	16	12%
Tradeswomen	7	5%
Domestic workers	10	8%
Restaurateurs (waitresses, etc.)	3	2%
Tailors	11	8%
Hotel staff (housekeepers etc.)	2	2%
Hairdresser	7	5%
Administrative staff (assistants etc.)	23	17%
Other	7	5%
Not specified	38	29%
Total	**132**	**100%**

Figure 6. Distribution of patients by use of psychoactive substances (N = 402).

The number of psychoactive substances taken by the patients varied from zero to six. Patients who used only one substance had a rate of 4.3%; 2.9% used two (**Table 4**).

Table 4. Distribution of patients according to the number of psychoactive substances used (N = 402).

SPA number	SPA type	Number	Percentage	Total partial percentage
0		360	89.6%	89.6%
	Benzodiazepine	1	0.2%	
	Tramadol	1	0.2%	

Continued

1	Alcohol	3	0.7%	4.3%
	Cannabis	3	0.7%	
	Tobacco	10	2.5%	
	Alcohol + Cocaine	1	0.2%	
	Cannabis + K2	1	0.2%	
2	Codeine + Benzodiazepine	1	0.2%	2.9%
	Tramadol + Acupan	2	0.5%	
	Alcohol + Tobacco	7	1.8%	
3	Alcohol + Tobacco + Cannabis	10	2.5%	2.5%
4	Alcohol + Tobacco + Cannabis + Cocaine	1	0.2%	0.2%
6	Alcohol + Tobacco + Cannabis + Codeine + Fentanyl + Morphine	1	0.2%	0.2%
Total		**402**	**100%**	**100%**

3.3.10. Mental Disorders

The mental disorders concerned the following ICD-10 pathology groups [F00 - 09], [F10 - F19], [F20 - F29], [F30 - F39], [F40 - 48], [F50 - F59] and [F60 - F69].

4. Discussion

4.1. Patient Records

Analysis of the hospitalization register reveals that, over five successive years, the department admitted 2870 inpatients, including 1002 women suffering from mental disorders. Normally, each woman admitted to hospital has a handwritten medical record, but only 659 handwritten records were collected from the various divisions of the department. This reflects a significant loss of handwritten patient records in the department.

Also, of these 659 files, only 402 met the selection criteria, due to certain missing data in the patient files. Faced with all these constraints, the secure digitization of patient records is strongly recommended.

4.2. Socio-Demographic Characteristics

4.2.1. Age

In our study, the mean age was 37 ± 13 years, with a median of 34 years. Most patients were between 31 and 40 years of age (28.6%). These results agree with those found by Coulibaly and al [13] and Agbir and al. [14] who respectively obtained a mean age of 35.3 years ± 12.8 and 31.78 years ± 11.65. Ouédraogo and al. [15] and Karfo and al [16] also found almost identical results, with a predominance of young women.

In Senegal, the national average age is low at 23.2 years, reflecting a predominantly young female population [17], as the number of women is higher than

that of men. This average may explain the predominance of young women in our study. This result may be evidence of the great vulnerability of young subjects to mental disorders. The slight difference between the 2 average ages could be explained by the delay in seeking care, which can last for years. More often than not, patients or their families consult traditional therapists first, until treatment fails and their financial resources are exhausted. This deviation from the therapeutic circuit means that they arrive in hospital years after the onset of the disease.

Women over 65 accounted for 4.7% of all patients. This result is in line with the national rate.

4.2.2. Marital Status and Marital Regime

In our study, we noted a predominance of unmarried patients with a percentage of 56% (single, divorced and widowed) compared with 44% of married patients. Our results are like those obtained in the study by Koundoul and al. [6] where single women predominated with a rate of 59.7%. The studies by Agbir and al [14] from Nigeria and Ouédraogo and al [18] from Burkina Faso also show a predominance of single women with respectively 63.3% and 59.41%. In Kenya, we also found a study in which single women were in the majority (65.1%) [19]. Saarento and al [20], in Finland, found that unmarried women outnumbered married women (63.3%). However, another study by Ouédraogo and al [15] found a higher rate of married women (56.1%).

In contrast to our study, the rate of single women in Senegal in 2013 (43%) was lower than that of married women in the country [17].

Marriage, which is considered a protective factor against mental illness by Scott and al [21], may explain the increase in the number of single women in our study population. In fact, they show that marriage has a positive effect on an individual's mental health by reducing the likelihood of most mental disorders such as depression, anxiety and drug addiction.

The rate of divorced women in our study population is 20%, a result that is clearly higher than the national rate of 3.3% [17] and the rate of 3.21% found in the studies by Salifou and al. [22]. The study by Agbir and al. [14], which is more in line with our results, obtained a rate of 22.3% of divorced women.

Nowadays, divorce has become a recurrent phenomenon due to the modernisation of society and women's knowledge of their rights [23]. Contradictorily, many divorces are not registered with the civil registry, hence the persistently low national rate. Judicial divorce is considered a failure and a disgrace by women and their families [23]. As a result, they remarry at a very early age [23]. However, our results lead us to believe that mental disorders mean that divorce is more tolerated among these women and constitute an obstacle to a probable remarriage.

The matrimonial regime was specified for 104 of the married women and 56% of these women were in a monogamous regime. The national rate of monogamous marriage is the same as in our study [24]. In the studies by Ouédraogou and al. [15] and Salifou and al. [22], monogamy was in the majority, with 74.4% and

71.4% of married women respectively.

4.2.3. Level of Education and Occupation

The French school enrolment rate in our study was 74%. Karfo and al. [16] obtained similar results, with 73.25% of women attending school. In contrast, Ouédraogo and al. [15] found an enrolment rate of less than 50%. The national enrolment rate for girls is between 50% and 60% [25].

University level was achieved by 32% of women. In the studies found, women often did not go beyond secondary school [13] [15] [16]. Our population, which is predominantly urban, explains the high rates we found. These results may also highlight the success in urban areas of campaigns to enrol girls in school, such as the SCOFI project (government programme for the enrolment of girls), set up by the Ministry of Education in 1994.

Despite the high rate of school enrolment and the high level of education achieved by most of the patients in the study, 67% of them are unemployed. Studies carried out in Mali, Burkina Faso and Finland also found higher rates of women with no income [13] [15] [16] [20].

Housewives were in the majority among the unemployed (39%), followed by women not in employment (14%). These results are comparable with those of Coulibaly and al. [13]. Mental illness is a cause of instability, loss of skills and reduced ability to carry out certain responsibilities [26]. It is therefore an obstacle to obtaining a job or keeping a job.

4.2.4. Significant Life Events

Studies show that psychosocial factors are implicated in the onset of mental disorders. Mourning was the most common factor in our study (30.2%). Studies by Parkes [27] found rates comparable to those in our study, with 46.2% and 33% respectively. A lower rate (5.05%) was found by Salifou and al [22]. Mourning is a trigger factor in the onset of mental illness [28]. When mourning is unhappy, it becomes pathological bereavement, which is characterised by the onset of a physical or mental illness during the bereavement period [27]. The various types of pathological mourning are characterised by the exacerbation of affects such as guilt, depression, loss of self-esteem, identification with the deceased, and sometimes even delusions [27].

Marital conflict affected 13.3% of the women in our study. Slightly higher rates were found in the Salifou and al. study [22], of the order of 25.69%. The study by Ouédraogo and al. [15] found a lower rate than ours (8.6%). Marital conflicts can have a major impact on the psyche and psychiatric disorders can take various forms. According to Lamarre and Lussier [29], in some couples the conflicts can be so intense, so frequent, so violent, so insidious and so little or poorly resolved that the spouses suffer the consequences for their mental health. According to the latter, the disorders most frequently observed are firstly emotional problems, then depression and finally personality disorders.

On the other hand, Menick [30] has shown that psychiatric and/or psychoso-

matic manifestations are the preferred mode of expression of these conflicts in Senegal. Depression is the main mode of decompensation [31]. This led Gueye in 1995 [12] to say that "everything is happening as if crazy behaviour is the only way out for this woman who, under normal conditions, has no right to speak".

A notion of trust was found in 6.5% of the women in our study. Trust is an ancient practice that is deeply rooted in our society. In their study on trust, Camara and al. [31] found that women are more trusting than men.

Arranged/forced or early marriages were found in 1.7% of patients, a much lower percentage than the 21% found in the study by Ouédraogo and al. [15]. These types of marriage are still relatively common in our society [24]. A study carried out in Cameroon showed the emergence of significant emotional overload in the form of sadness, anxiety, pessimism, disgust with life, despondency, and a constant drop in self-esteem, which can lead some women to attempt suicide [32]. The result of these marriages is a devalued social image of women, leading to mental disorders such as depression and anxiety [32].

Sexual abuse was also reported by patients in our study (0.4%). Garcia and al. [33] found that between 15% and 71% of women worldwide have been physically or sexually abused by a male partner at some point in their lives. Such violence can lead to numerous psychological disorders, in addition to post-traumatic stress disorder [33]. The 1989 Australian National Policy on Women's Health demonstrated this relationship by stating that "Women who experience sexual and physical violence are more likely to have psychological problems" [34].

Other studies have shown that victims of sexual violence present more psychiatric symptoms than non-victims, especially depression, anxiety, somatisation, obsessive-compulsive disorders, and paranoid ideation [35] [36] [37]. The study by Winfield and al. [38] showed that recent rape victims were significantly more likely to meet DSM-III criteria for major depression and drug abuse than for other disorders.

In summary, these different life events should lead us to reflect on the link between the existence of stressful socio-environmental factors and the onset of mental disorders in women. As Ferreri and al. [39] have pointed out: "The existence of personal or social event-related difficulties preceding the onset of mental or somatic disorders has long been reported".

4.3. Use of Psychoactive Substances

The percentage of women using psychoactive substances was 20%; two-thirds were multiple users. Coulibaly and al. [13] found almost the same substances, mainly tobacco, cannabis, and alcohol. All three are known for their anxiolytic effects [40] [41].

In Africa, a woman who smokes a tobacco cigarette is already perceived as a person without morals. So, a woman who uses drugs is even more complicated [42]. The results we found can be explained by the modernization of society and changing representations of drug use among women. Furthermore, studies have

shown that women who use psychoactive substances are more likely to develop psychiatric disorders than those who do not [43] [44] [45].

4.4. Limitations

Hospital statistics only partially reflect the extent of mental health problems among women in the general population. Some mental disorders are treated on an outpatient basis or by traditional therapists. It is only when these two methods fail that hospitalisation may be recommended. To obtain better information, we have only considered women who were hospitalised.

4.5. Recommendations

For a better epidemiological study of mental disorders in women in Africa, more specifically in Senegal, we make the following recommendations to:

The population:
- To consult the health services early to avoid the traditional therapeutic pathway which conceals the real prevalence of mental disorders. To avoid resorting to traditional therapy at the onset of the illness, social and individual representations of mental disorders must be deconstructed, because most often it is to understand the meaning of the illness that patients turn to traditional therapists. The latter share their representations with the general population.
- To avoid stigmatisation and discrimination among women with mental health problems, which are responsible for the delay in seeking care. Patients deny their symptoms to avoid stigmatisation, or they are hidden by their relatives in the village.

Caring staff:
- Digitize medical reports.
- To recognize the vulnerability factors of mental disorders in women for primary prevention.

Political decision-makers:
- Develop epidemiological studies of women's mental disorders.
- Facilitate access to medical and psychological care.

5. Conclusion

In our study, the epidemiological profile of a woman with a mental disorder in Dakar is that of a single woman in her forties who has attended school through to university and is a housewife. She does not use psychoactive substances and has experienced at least one mourning in her life.

Conflicts of Interest

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

References

[1] OMS (2001) Rapport sur la Santé dans le monde 2001. La santé mentale Nouvelle

Conception, nouveaux espoirs. Genève.

[2] Agenda Alliance for Women & Girls at Risk (2019) Women's Mental Health Facts.
https://www.agendaalliance.org/our-work/projects-and-campaigns/womens-mental
-health-facts

[3] Chal, C. (2017) 3 Groups Are at "High Risk" of Mental Health Issues in Canada.
Here's Why. Global News. https://globalnews.ca/news/3415871/these-3-groups-

[4] Kapur, N., Hunt, I., Lunt, M., Creed, F., McBeth, J. and Macfarlane, G. (2005) Primary Care Consultation Predictors in Men and Women: A Cohort Study. *British Journal of General Practice*, **55**, 108-113.

[5] McManus, S., Bebbington, P., Jenkins, R. and Brugha, T. (2016) Mental Health and Wellbeing in England: Adult Psychiatric Morbidity Survey 2014. NHS Digital, Leed, 405 p.

[6] Koundoul, A., Seck, D., Wone, I., Kane, Y., Seck, S. and Thiam, M.H. (2021) Profil des Patients Porteurs d'Affection Psychiatrique au Centre Psychiatrique de Ziguinchor au Sud du Sénégal. *Health Sciences and Disease*, **22**, 68-72.

[7] Amoussa, M. (2005) Les aspects épidémiologiques, cliniques et thérapeutiques de la schizophrénie au centre psychiatrique Emile Badiane de Ziguinchor. Thèse doctorat Médecine, Université Cheikh Anta Diop de Dakar, Dakar.

[8] OMS (1993) Aspects psychosociaux et psychiatriques de la santé de la femme. OMS, Genève, 90 p.

[9] Gorwood, P. and Rouillon, F. (1996) Épidémiologie des maladies mentales. Encycl Méd Chir, Paris, 10 p.

[10] Schuler, D. and Burla, L. (2012) La santé psychique en Suisse. Monitorage (Obsan rapport 52). Observatoire suisse de la santé, Neuchâtel.

[11] Samad, Z., Boyle, S., Ersboll, M., *et al.* (2014) Sex Differences in Platelet Reactivity and Cardiovascular and Psychological Response to Mental Stress in Patients with Stable Ischemic Heart Disease. Insights from the REMIT Study. *Journal of the American College of Cardiology*, **64**, 1669-1678. https://doi.org/10.1016/j.jacc.2014.04.087

[12] Gueye, M. (1995) Facteurs psychosociaux chez la femme. *L'information Psychiatrique*, **71**, 537-542.

[13] Coulibaly, P.S., Dolo, H., Notue, C.A.M., Sangaré, M., Mounkoro, P.P., Aboubacar, A., Traoré, J., and al. (2022) Épidémiologie hospitalière des troubles psychiatriques au Mali. *Pan African Medical Journal*, **41**, Article No. 160.

[14] Agbir, T.M., Oyigeya, M., Dapap, D.D. and Goar, S.G. (2010) Gender and Psychiatric Diagnosis: A 5-Year Retrospective Study in a Nigerian Federal Medical Centre. *Nigerian Journal of Medicine*, **19**, 455-458. https://doi.org/10.4314/njm.v19i4.61976

[15] Ouédraogo, A., Traoré, A., Kéré, M. and Louguet, S. (1997) Aspects épidémiologiques et cliniques des troubles mentaux chez les femmes hospitalisées dans le service de psychiatrie du CHN Yalgado de Ouagadougou. *Science et Technique*, *Sciences Naturelles*, **23**, 93-100.

[16] Karfo, K., Kiendrebeogo, J.A., Yaogo, A., Ouango, J.G. and Ouédraogo, A. (2011) Les troubles psychotiques aigus et transitoires au Burkina Faso: Aspects épidémiologiques et cliniques à propos de 188 cas. *Annales Médico-Psychologiques*, **169**, 160-166. https://doi.org/10.1016/j.amp.2010.05.015

[17] Agence Nationale de la Statistique et de la Démographie (ANSD) (2016) Recensement général de la population et de l'habitat, De l'agriculture et de l'élevage (RGPHAE) 2013.

[18] Ouédraogo, A., Ouédraogo, T.L., Traoré, A., Sawadogo, G., Nebie, K., and Yougbare,

J.M. (2006) Caractéristiques de la population prise en charge au Service de Psychiatrie du CHU Yalgado Ouédraogo de Ouagadougou (Burkina Faso) de 1990 à 2000. *L'Encéphale*, **32**, 437-443. https://doi.org/10.1016/S0013-7006(06)76184-X

[19] Ndetei, D.M., Khasakhala, L., Maru, H., Pizzo, M., Mutiso, V., Ongecha-Owuar, F.A. and Kokonya, D.A. (2008) Clinical Epidemiology in Patients Admitted at Mathari Psychiatric Hospital, Nairobi, Kenya. *Social Psychiatry Psychiatric Epidemiology*, **43**, 736-742. https://doi.org/10.1007/s00127-008-0360-y

[20] Saarento, O., Räsänen, S., Nieminen, P., Hakko, H. and Isohanni, M. (2000) Sex Differences in the Contact Rates and Utilization of Psychiatric Services. A Three-Year Follow-Up Study in Northern Finland. *European Psychiatry*, **15**, 205-212. https://doi.org/10.1016/S0924-9338(00)00224-8

[21] Scott, K. (2018) Marriage Good News for Mental Health, but Separation and Divorce Have Negative Impacts. Ph.D. Thesis, University of Otago, Otago.

[22] Salifou, S., Wenkourama, D., Soedje, K.M.A., Anagonou, L., Kanekatoua, S., Gbetogbe, K.M., Matey, K., *et al.* (2018) Profil des Patients Vus en Consultation Psychiatrique au CHU-Campus de Lomé. *Health Sciences and Diseases*, **19**, 48-52.

[23] Fall, K. (2004) Divorce en milieu urbain: Cause-conséquences: Le cas de Dakar. Mémoire de maitrise en Sociologie. Université Cheikh Anta Diop de Dakar, Dakar, 66 p.

[24] Agence Nationale de la Statistique et de la Démographie (ANSD) (2014) Recensement général de la population et de l'habitat, De l'agriculture et de l'élevage (RGPHAE) 2013 [Internet]: Chapitre IX.

[25] UNICEF (2018) L abandon scolaire des jeunes femmes au niveau du secondaire au Sénégal. https://docplayer.fr/161714882-L-abandon-scolaire-des-jeunes-femmes-au-niveau-du-secondaire-au-senegal.html

[26] Stiker, H.J. (2009) Maladie mentale, société, travail. *Vie Sociale*, **1**, 51-59. https://doi.org/10.3917/vsoc.091.0051

[27] Parkes, C.M. (1964) Recent Bereavement as a Cause of Mental Illness. *The British Journal of Psychiatry*, **110**, 198-204. https://doi.org/10.1192/bjp.110.465.198

[28] Philippin, Y. (2006) Deuil Normal, Deuil Pathologique et prévention en milieu clinique. *Médecine et Hygiène*, **21**, 163-166. https://doi.org/10.3917/inka.064.0163

[29] Lamarre, M. and Lussier, Y. (2007) Conflits et ruptures conjugales: Les psychologues se prononcent. *Psychologie Québec*, **24**, 1-3.

[30] Menick, D.M. (1995) La conjugopathie au Sénégal: Une plainte angoissée de la féminité à propos de 1 cas observés à la clinique psychiatrique du CHU de Fann/Dakar. Mémoire de Médecine. Université Cheikh Anta Diop de Dakar, Dakar.

[31] Camara, M., Seck, S., Ba, E.M.B., Faye, P.L. and Thiam, M.H. (2014) Le confiage: Mécanismes et enjeux relationnels. *L'autre*, **15**, 167-177. https://doi.org/10.3917/lautr.044.0167

[32] Les Mariages précoces et forcés au Cameroun: État de la question et mise en perspective. https://www.girlsnotbrides.org/documents/1728/Les-Mariages-prC3A9coces-et-forcC3A9s-au-Cameroun-ALVF-and-IWHC.pdf

[33] García-Moreno, C., Jansen, H.A.F.M., Ellsberg, M., Heise, L. and Watts, C. (2005) Multicountry Study on Women's Health and Domestic Violence against Women. Initial Results on Prevalence, Health Outcomes and Women's Responses. WHO Report, Geneva, 118 p.

[34] Australian Government Bureau of Statistics 1998, 1989, Catalogue N°6224.0. Australian Government Publishing Service, Canberra.

[35] Frank, E., Turner, S.M. and Duffy, B. (1979) Depressive Symptoms in Rape Victims. *Journal of Affective Disorders*, **1**, 269-277. https://doi.org/10.1016/0165-0327(79)90013-2

[36] Atkeson, B.M., Calhoun, K.S. and Resick, P.A. (1982) Victims of Rape: Repeated Assessment of Depressive Symptoms. *Journal of Consulting and Clinical Psychology*, **50**, 96-102. https://doi.org/10.1037/0022-006X.50.1.96

[37] Becker, J.V., Skinner, L.J., Abel, G.G., Axelrod, R. and Cichon, J. (1984) Sexual Problems of Sexual Assault Survivors. *Women and Health*, **9**, 5-20. https://doi.org/10.1300/J013v09n04_02

[38] Winfield, I., George, L.K., Swartz, M. and Blazer, D.G. (1990) Sexual Assault and Psychiatric Disorders among a Community Sample of Women. *American Journal of Psychiatry*, **147**, 335-341. https://doi.org/10.1176/ajp.147.3.335

[39] Ferreri, M., Vacher, J. *et al.* (1987) Evénements de vie et dépression. Encyclopédie Médico-Chirurgicale. 37879, A^{10}: 1-10.

[40] Mitchell, J.E. and Dahlgren, L.A. (1986) Prevalence of Smoking among Psychiatric Outpatients. *American Journal of Psychiatry*, **143**, 993-997. https://doi.org/10.1176/ajp.143.8.993

[41] Green, V.R., Conway, K.P., Silveira, M.L., Kasza, K.A., Cohn, A., Cummings, K.M., Zandberg, I., *et al.* (2018) Mental Health Problems and Onset of Tobacco Use among 12-24 Year-Olds in the PATH Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, **57**, 944-954. https://doi.org/10.1016/j.jaac.2018.06.029

[42] Mejdoub, Y., Jmaa, M.B., Abbes, W., Abbes, M., Yaich, S., Mdhaffar, K., Damak, J., Hassen, H., Trablesi, J. and Ghanmi, L. (2023) Socio-Demographic and Clinical Profile of a Population of Patients Coming for Consultation to the Psychiatric Department of a General Hospital in Southern Tunisia. *The Pan African Medical Journal*, **44**, Article No. 169. https://doi.org/10.11604/pamj.2023.44.169.28846

[43] Chander, G. and McCaul, M.E. (2003) Co-Occurring Psychiatric Disorders in Women with Addictions. *Obstetrics and Gynecology Clinics of North America*, **30**, 460-481. https://doi.org/10.1016/S0889-8545(03)00079-2

[44] Grella, C.E., Scott, K.C. and Foss, M.A. (2005) Gender Differences in Long-Term Drug Treatment Outcomes in Chicago PETS. *Journal of Substance Abuse Treatment*, **28**, S3-S12. https://doi.org/10.1016/j.jsat.2004.08.008

[45] Engstrom, El-Bassel, N. and Gilbert, L. (2012) Childhood Sexual Abuse Characteristics, Intimate Partner Violence Exposure, and Psychological Distress among Women in Methadone Treatment. *Journal of Substance Abuse Treatment*, **43**, 366-376. https://doi.org/10.1016/j.jsat.2012.01.005

Appendix. Data Collection Form

Record number:

1. Identity (initials): …………………………………………………..…..…..

- Age (years): …………………………………………………….…..
- Address: ……………………………………………………….......
- Geographical origin: ……………………………………………..…..

2. Marital status:

☐ Single   ☐ Maried:

               ☐ monogamous   ☐ polygamous   ☐ unspecified

☐ Divorced   ☐ Widowed

3. Ethnic group:

☐ Wolof   ☐ Serer   ☐ Haalpular   ☐ Mandingue
☐ Diola   ☐ Lébou   ☐ Bambara   ☐ Maure
☐ Other (specify): ……………………………………………..

4. Religion:

☐ Muslim   ☐ Christian ☐ Animist
☐ Other (specify): …………………………….…………..

5. Education:

- French school:
   ☐ Primary   ☐ Middle   ☐ Secondary   ☐ University
- ☐ Koranic school
- ☐ Unschooled
- ☐ Not specified

6. Professional activity:

- ☐ Working (specify): …………………………………..
- Unemployed:
   ☐ Housewife   ☐ Pupil or Student   ☐ Retired   ☐ Not working

7. Use of psychoactive substances:

☐ Tabacco   ☐ Alcohol   ☐ Cannabis
☐ Other (specify): ……………………………………………

8. Significant live events:

☐ Marital conflicts   ☐ Mourning (specify): ………………………
☐ Birth of a child   ☐ Job loss   ☐ Abandonment of partner
☐ Remarriage of spouse   ☐ Divorce   ☐ Other (specify): ………

9. Diagnosis (ICD-10):

☐ (F00 à F09) Organic, including symptomatic, mental disorders

- [ ] (F10 à F19) Mental and behavioural disorders due to psychoactive substance use
- [ ] (F20 à F29) Schizophrenia, schizotypal and delusional disorders
- [ ] (F30 à F39) Mood [affective] disorders
- [ ] (F40 à F48) Neurotic, stress-related and somatoform disorders
- [ ] (F50 à F59) Behavioural syndromes associated with physiological disturbances and physical factors
- [ ] (F60 à F69) Disorders of adult personality and behaviour
- [ ] (F70 à F79) Mental retardation
- [ ] (F80 à F89) Disorders of psychological development
- [ ] (F90 à F98) Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
- [ ] (F99) Unspecified mental disorder