Neurologic comorbidity in psychiatric inpatients: evidence from neurologic consultations in a Spanish center

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Introduction. The presence of psychiatric comorbidity in some neurological disorders is common. A bi-directional influence between some psychiatric and neurological disorders has been discussed, but not widely studied. There is an absence of literature on the typology and rates of neurology consultations in different types of psychiatric inpatients.

Materials and methods. Cross-sectional study based on real world data on patients who had a neurological consultation during hospitalization on a psychiatric ward.

Results. The most frequent reasons for visits to neurologists in our study were cluster 'Epilepsy/other types of non-epileptic seizures' (*n* = 177, 36.44%), followed by cluster 'Movement disorders' (*n* = 77, 20.48%), 'Cognitive disorder' (*n* = 69, 18.35%), and finally cluster 'Neuropathy' (*n* = 21, 5.59%). The most frequent type of psychiatric patient who required neurologic consultation presented a psychotic disorder (*n* = 100, 26.60%), follow by problem behavior (*n* = 82, 21.81%), bipolar disorder (*n* = 78, 20.78%), depressive disorder (*n* = 42, 11.17%) and autism spectrum disorder (*n* = 20, 5.32%). We found a statistically significant relationship between (problem behavior and intellectual disability) and neurologic consultation for epilepsy/other types of non-epileptic seizures, and between (depressive disorder, bipolar disorder, autism spectrum disorder and intellectual disability) and neurologic consultation for movement disorders.

Conclusions. This is the first study in the literature which analyzes the rates and typology of neurologic consultations in people hospitalized with psychiatric disorders. A deep knowledge of epilepsy, movement disorders and cognitive disorders should be required for health professionals to treat psychiatric inpatients appropriately. Patients with particular psychiatric disorders seem to require a higher number of neurologic consultations than others during their hospitalization.

Key words. Epilepsy. Intellectual disability. Mental health. Movement disorders. Neurological comorbidities. Neuropsychiatry.

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Introduction

The presence of psychiatric comorbidity in some neurological disorders is common. Epilepsy, migraine, Parkinson´s disease, dementia, multiple sclerosis and stroke are the most frequent neurological disorders that present with psychiatric comorbidity [1]. A bi-directional influence between some psychiatric and neurological disorders has been discussed [2] but not widely studied. The neurological disorders that seem to most commonly present with mental disorders are described in detail below.

Epilepsy

People with epilepsy present a higher prevalence of depression and anxiety than the general population. Kanner et al [3] estimate a 35% lifetime prevalence of psychiatric comorbidities in people with epilepsy, with depression and anxiety the most frequent in adults and attention deficit/hyperactivity disorder most common in children. In people with intellectual disability, the presence of epilepsy is significantly higher than in the general population [4], although the relationship with psychiatric disorders appears to be similar [5]. Peña-Salazar et al [6] could not identify a clear relationship between epilepsy and mental disorders in people with intellectual disability in a systematic review, probably due to the high impact of confounding factors, even though depressive symptoms seemed to be more prevalent in people with epilepsy. On the other hand, Hesdorffer [7] studied the influence of depression in the onset of epilepsy, finding that depression doubled the risk of developing epilepsy. Fur-

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thermore, people with depression prior to the onset of epilepsy showed a higher risk of developing treatment-resistant epilepsy [8].

Migraine

Migraine is frequently associated with mood disorder, especially depression, but also with bipolar disorders. Merikangas et al [9] found mood disorders to be twice as prevalent in people with migraine than in people without and Kim et al [10] a 30% prevalence of depression in people with chronic headache. A bi-directional relationship between depression and migraine was suggested by Breslau et al [11], who reported a higher prevalence of migraine after the onset of depression and a higher prevalence of depression after the onset of migraine than in the general population.

Parkinson´s disease

The most prevalent psychiatric disorders in people with Parkinson´s disease seem to be depressive and psychotic disorders. About one in every three patients with Parkinson´s disease presents comorbid depressive disorder at some time in their life [12]. Additionally, Hesdorffer [1] described a threefold increased risk of developing Parkinson's Disease in people with depressive disorders. The aetiology of the relationship between Parkinson´s disease and depression is unknown, although depression as a prodromal symptom in the development of Parkinson´s disease [13,14] is one of the most widely-recognized concepts.

On the other hand, Forsaa et al [15] observed a cumulative prevalence of psychosis of 60% in this population and Pagonabarraga et al [16] reported a prevalence of 42% in people with untreated Parkinson's disease. Lastly, impulse control disorder in people with Parkinson´s disease seems to be highly prevalent (cumulative 5-year incident rate of 46%), due to the duration of the disease [17] and the close relationship with anti-parkinsonian treatment.

Alzheimer's disease

Alzheimer's disease is frequently associated with psychotic disorders [1], with an estimated prevalence of 40-50% [18]. Depressive disorders and anxiety disorders are also highly prevalent in this population [10], playing a role in the development of Alzheimer's disease [19] or being part of the initial phase of this form of dementia [20].

Multiple sclerosis

Psychiatric symptoms in people with multiple sclerosis are very frequent [21]. Depressive disorders (31%) and anxiety (36%) are the most prevalent disorders in people with multiple sclerosis [22] and are associated with worse quality of life [23]. Other psychiatric disorders commonly associated with multiple sclerosis are substance abuse, substance dependence and bipolar disorder [22].

Stroke

Stroke is very closely linked to mood disorders, especially depression. The estimated prevalence of post-stroke depression is 18-33% and is related to higher mortality and poorer quality of life [24]. Anxiety disorders are also very common after stroke, with an approximate prevalence of 20% [25] while posttraumatic stress disorder is also frequent (10-31%) [26]. On the other hand, people with psychiatric disorders, such as depression, substance abuse disorders and neurotic disorders, seem to present a higher prevalence of ischemic stroke.

The prevalence and typology of neurologic disorders described here in people with comorbid psychiatric disorders are based solely on studies carried out in outpatient clinics or prevalence studies. Considering the high prevalence of comorbid psychiatric disorders in people with neurological disorders, some of which are probably bi-directional, there is a lack of studies in the literature on the presence of neurologic disorders in patients with previous psychiatric disorders. This knowledge gap could lead to unsuitable treatment in psychiatric patients, a particularly vulnerable population. Consequently, the objectives of this study are to determine the rates of neurologic comorbidities and to assess the relationship between them in psychiatric inpatients.

Materials and methods

Study design

The study was approved by the Research and Ethics Committee at Fundació Sant Joan de Déu (Barcelona, Spain) (Reference number: 27-2023-05).

This cross-sectional study used real-world data from psychiatric patients who received a neurological consultation during their psychiatric hospitalization. Data from clinical records between Sep-

tember 27, 2019, and July 12, 2022, were retrospectively reviewed. Patients were admitted to various inpatient units in the Mental Health Network at Parc Sanitari Sant Joan de Déu (MHN-PSSJD) in Barcelona, Spain, which serves around 1.6 million inhabitants with 489 beds. The study was approved by the Research and Ethics Committee at Fundació Sant Joan de Déu (Reference number: 27-2023-05).

Sample selection

Inclusion criteria for the study were as follows: a) being 18 years or older; b) being an inpatient in an MHN-PSSJD mental health inpatient service; and c) having attended a neurologic consultation during admission to a mental health service.

Variables

Neurological consultation involved assessment of the presence or otherwise of neurological disorders and coding following the International Classification of Diseases eleventh revision (ICD-11) (World Health Organization, 2019). Psychiatric disorders were evaluated and coded according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2013). We included psychiatric diagnosis of conduct disorders and impulse control disorders following DM-ID 2 (Diagnostic Manual Intellectual Disability) recommendations within the group of 'Problem Behavior' in people with and without intellectual disability. Psychiatric and neurological disorders were grouped, based on clinical criteria, into different clusters to facilitate their interpretation.

Neurologic disorder clusters

Cluster 'Epilepsy/other types of non-epileptic seizures' includes epilepsy, seizure and psychogenic non-epileptic seizure. Cluster 'Movement disorders' includes non-specific movement disorders, tremor, tics, idiopathic Parkinson´s disease, vascular Parkinson´s disease, parkinsonism, dystonia and Huntington diseases. Cluster 'Cognitive disorder' includes dementia and cognitive impairment. Cluster 'Neuropathy' includes neuropathy, polyneuropathy, plexopathy and neuropathic pain.

Psychiatric disorders clusters

Cluster 'Psychotic disorders' includes schizophrenia, paranoid schizophrenia, disorganized schizophrenia, not otherwise specified psychotic disorder, non-specific Psychosis and chronic delusional disorder.

Cluster 'Depressive disorders' includes depressive disorder and recurrent major depressive disorder.

Cluster 'Personality disorders' includes borderline personality disorder, antisocial personality disorder, organic personality disorder and non-specific personality disorder.

Cluster 'Problem behavior' includes conduct disorders and impulse control disorders

Other variables recorded were gender, age at consultation and presence of intellectual disability.

Statistical analysis

Data were analyzed using Stata 17. Descriptive analyses included counts and proportions for categorical variables and means and standard deviations for continuous variables to explore sex, age at consultation, presence of intellectual disability, and diagnoses. Bivariate associations between neurological and mental health diagnoses were assessed using the chi-squared test. Logistic regressions, adjusted for sex, age, and presence of intellectual disability, were conducted to examine the relationships between neurological and mental health disorders, with effects shown as odds ratios (OR).

Results

Description of the sample

Table I shows the sociodemographic and clinical characteristics of the 376 inpatients with mental disorders included in the study. Fifty-five percent of the sample were males, had a mean age of 53 years, and 46.1% presented intellectual disability.

The most frequent reasons for visits to neurologists in our study were cluster 'Epilepsy/other types of non-epileptic seizures' (n = 177; 36.44 %), followed by cluster 'Movement disorders' (n = 77; 20.48%), cluster 'Cognitive disorder' (n = 69; 18.35%) and, finally, cluster 'Neuropathy' (n = 21; 5.59%) (n = 21; 5.59 %).

The most frequent type of psychiatric patient requiring neurological consultation presented a psychotic disorder (n = 100; 26.60 %), followed by 'Problem behavior' (n = 82; 21.81 %), bipolar/schizoaffective disorder (n = 78; 20.78 %), depressive disorder (n = 42; 11.17 %) and autism spectrum disorder (n = 20; 5.32 %). Furthermore, 43.09 % (n = 162) of those receiving neurological consultations, independently of the patient's comorbid psychiatric disorder, presented an intellectual disability.

Table I. Sample sociodemographic and clinical characteristics.

	Frequency (*n*)	Percentage (%)
Gender		
Male	206	54.8
Female	170	45.2
Age at consultation (mean; SD)	53.4	14.6
Intellectual disability	162	46.1
Mild (IQ 52-69)	64	39.51
Moderate (IQ 36-51)	62	38.27
Severe (IQ 20-35)	35	21.6
Profound (IQ 19 or below)	1	0.62
Mental health diagnoses		
Psychotic disorders[a]	100	26.6
Problem behavior[b]	82	21.81
Bipolar and schizoaffective disorders	78	20.74
Depressive disorders[c]	42	11.17
Autism spectrum disorders	20	5.32
Personality disorders[d]	14	3.72
Autolytic attempt or ideas	11	2.93
Obsessive-compulsive disorder	9	2.39
Cognitive disorders[e]	9	2.39
Mixed adjustment disorders	3	0.8
Pica disorder	3	0.8
Alcohol or substance dependence disorder	3	0.8
Anxiety disorders	2	0.53

Relationship between neurologic consultations and psychiatric disorders

Cognitive disorder and psychiatric disorders

The proportion of neurologic consultations for cognitive disorder in each of the mental health diagnoses, as well as their association, is described in table II. There were no patients with autism who received a neurologic consultation for cognitive disorders. We found a statistically significant relationship between bipolar disorder and depression and consultation for cognitive disorder in the bivariate statistical analyses, but these relationships were not maintained after controlling for the remaining variables. Multivariate logistic regression analyses revealed a statistically significant relationship between the absence of a problem behavior (OR = 0.1) and higher age (OR = 1.03) and having a neurologic consultation for cognitive disorder.

Epilepsy/other types of non-epileptic seizures and psychiatric disorders

The proportion of neurologic consultation for epilepsy/other types of non-epileptic seizures in each of the mental health diagnoses, along with as their association, is described in table III. There were no patients who received a neurologic consultation for epilepsy/other types of non-epileptic seizures that had a diagnosis of depression. We found a statistically significant relationship between bipolar disorder, schizophrenia and autism and consultation for epilepsy/other types of non-epileptic seizures in the bivariate analysis, although these relationships were not maintained in the multivariate analysis. In the logistic regression analyses, we found a statistically significant relationship between having a diagnosis of problem behavior (OR = 4.2), lower age (0.97) and having intellectual disability (OR = 2.5) and neurologic consultation for epilepsy/other types of non-epileptic seizures.

Movement disorders and psychiatric disorders

The proportion of consultations for movement disorders in each of the mental health diagnoses, as well as their association, is described in table IV. Logistic regression analyses showed a statistically significant relationship between having a diagnosis of depressive disorder (OR = 2.7), bipolar/schizoaffective disorder (OR = 2.4), autism spectrum disorder (OR = 6.02) and intellectual disability (OR = 0.46) with neurologic consultations for movement disorders.

Discussion

As far as we know, this is the first study to analyze the rates and typology of neurologic consultations in people hospitalized with psychiatric disorders. Our major finding was that 'Epilepsy/other types of non-epileptic seizures' was the medical reason for consultation in one of every three visits to a neurologist. The second most prevalent reason for consultation was movement disorders (24.73%) and the third was cognitive disorders (18.35%). These results highlight the importance of these neurologic disorder clusters in hospitalized psychiatric patients.

Epilepsy/other types of non-epileptic seizures

Epilepsy/other types of non-epileptic seizures as a reason for consultation in hospitalized psychiatric patients observed in this study is high. This could be explained by the higher prevalence of epilepsy in people with some mental disorders, especially those with mood disorders (35%) [27], compared with the population without a psychiatric disorder (6-8%) [28].

An additional potential reason for this high rate of epilepsy as a reason for consultation could be that people without epilepsy, but with some psychiatric disorders, can have a greater likelihood of experiencing epileptic seizures during hospital admission due to different factors: a) the use of some antipsychotic drugs which lower the epileptic threshold; b) alcohol or benzodiazepine withdrawal; and c) sleep deprivation in some acute decompensated psychiatric disorders, such as psychosis or manic episodes in bipolar disorder.

Furthermore, the presentation of psychogenic non-epileptic seizure or pseudocrisis, with or without epileptic seizures, is common [3] in some psychiatric disorders such as posttraumatic stress disorders, personality disorders, depressive, anxiety disorders [29] or psychotic disorders [30]. Performing an accurate differential diagnosis can be a challenge, even more so when both epileptic seizure and psychogenic non-epileptic seizures occasionally appear in the same patient [31].

The fact that we did not find any patients with depression and epilepsy in our population sample is probably due to the particular demographics of our study, which consisted solely of psychiatric inpatients with severe mental disorders. The prevalence of depression in our sample is lower than that of other severe mental disorders, such as bipolar or psychotic disorders.

Table I. Sample sociodemographic and clinical characteristics *(cont)*.

	Frequency (*n*)	Percentage (%)
Neurological diagnoses and /or related neurological symptoms		
Epilepsy[f]	137	36.44
Movement disorders[g]	93	24.73
Cognitive disorders	69	18.35
Neuropathy[h]	21	5.59
Hydrocephaly	8	2.13
Changes in neuroimaging tests	8	2.13
Headaches	7	1.86
Radiculopathy and myelopathy	7	1.86
Brain tumor	5	1.33
Pharmacological psychosis	4	1.06
Neurosyphilis	4	1.06
Stroke	3	0.8
Syncope	2	0.53
Sphincter incontinence	2	0.53
Systemic diseases and Lupus	2	0.53
Dizziness and nystagmus	1	0.27
Narcolepsy	1	0.27
Demyelinating diseases	1	0.27
Head trauma	1	0.27

IQ: intelligence quotient; SD: standard deviation. [a] Psychotic disorders: includes schizophrenia, paranoid schizophrenia, disorganized schizophrenia, not otherwise specified psychotic disorder, non-specific psychosis and chronic delusional disorder. [b] Problem behavior: includes conduct disorders, impulse control disorder. [c] Depressive disorders: includes depressive disorder and recurrent major depressive disorder. [d] Personality disorders: includes borderline personality disorder, antisocial personality disorder, organic personality disorder and non-specific personality disorder. [e] Cognitive disorders: includes dementia and cognitive impairment. [f] Epilepsy: includes seizure, psychogenic non-epileptic seizure, and epilepsy. [g] Movement disorders: includes tremor, tics, idiopathic and vascular parkinsonism, dystonia, Huntington diseases and movement disorder. [h] Neuropathy: includes polyneuropathy, plexopathy, neuropathic pain and neuropathy.

Table II. Proportion of neurologic consultations for cognitive disorder based on the presence of mental health diagnoses (MD) and association between mental health diagnoses and cognitive disorder in bivariate analysis using chi-squared test and multivariate analysis using logistic regression models[a].

	% with MD	% without MD	Chi-squared	Multivariate logistic regression analysis		
			p-value	*Odds ratio*	CI 95%	*p*-value
Depression	30.95	16.77	0.025	0.94	0.37-2.4	0.903
Bipolar disorder	30.77	15.1	0.001	1.64	0.76-3.54	0.21
Schizophrenia	15	19.57	0.312	0.66	0.29-1.49	0.311
Autism	0	19.38	0	–	–	–
Problem behavior	2.44	22.79	0	**0.13**	**0.03-0.63**	**0.011**
Age				**1.03**	**1.01-1.06**	**0.003**
Intellectual disability				0.63	0.3-1.32	0.223
Female gender				1.26	0.72-2.23	0.421

CI 95%: confidence interval at 95%; MD: mental health diagnoses. [a] Text in bold indicates statistical significance in the multivariate logistic regression analysis.

Table III. Proportion of neurologic consultations for epilepsy based on the presence of mental health diagnoses (MD) and association between mental health diagnoses and epilepsy in bivariate analysis using chi-squared test and multivariate analysis using logistic regression models[a].

	% with MD	% without MD	Chi-squared	Multivariate logistic regression analysis		
			p-value	*Odds ratio*	CI 95%	*p*-value
Depression	0	41	0	–	–	–
Bipolar disorder	16.67	41.61	0	0.58	0.24-1.37	0.2016
Schizophrenia	28	39.49	0.041	1.11	0.52-2.34	0.788
Autism	34.83	65.00	0.006	1.34	0.38-4.68	0.648
Problem behavior	80.49	24.15	0	**6.78**	**2.81-16.35**	**0**
Age				**0.96**	**0.95-0.98**	**0**
Intellectual disability				**2.98**	**1.62-5.5**	**0.004**
Female gender				0.62	0.36-1.07	0.086

CI 95%: confidence interval at 95%; MD: mental health diagnoses. [a] Text in bold indicates statistical significance in the multivariate logistic regression analysis.

Another important finding in our study was the high proportion of patients with intellectual disability, regardless of the participant's underlying psychiatric disorder, in our population sample (46.1%). Taking into account the high prevalence of epilepsy in people with intellectual disability, with a lifetime prevalence of 25% [32] compared with 7.6 per 1,000 people [4] in the general population, it is unsurprising to find a high number of patients with epilepsy in this group. Moreover, we found a relationship between epilepsy as a reason for consultation and intellectual disability, which seems to confirm the strong relationship between intellectual disability and epilepsy in people with comorbid psychiatric disorders [6]. On the other hand, the statistically significant relationship found between problem behavior and epilepsy as the reason for consultation could be mediated by the higher prevalence of underlying psychiatric disorders in people with problem behaviors [32], especially in the population with comorbid intellectual disability. It can be challenging to identify underlying mental disorders in people with problem behavior [33], with diagnostic overshadowing leading to real psychopathological phenomena among people with intellectual disability being overlooked.

Movement disorders

The second most frequent medical reason for consultation in our study was movement disorders. Various types of movement disorders associated with comorbid psychiatric disorders are described in the literature, with some, such as dystonia and parkinsonism being very common [34]. Essential tremor and tic disorders are often associated with depression and anxiety [35], and restless leg syndrome with depression [36].

Parkinsonism is frequently associated with the use of antipsychotic and mood-stabilizing drugs, although it has also been reported in patients with schizophrenia who have never been treated with antipsychotics [37]. In this vein, a common pathophysiology between some psychiatric disorders and parkinsonism has been discussed [38]. Finally isolated tremor, (without necessarily presenting other symptoms or signs of the parkinsonian syndrome) is a typical side-effect of several mood-stabilizing medications (such as lithium, valproate or lamotrigine) [39,40], without necessarily reflecting an underlying neurological disease. However, psychopharmacological treatment was not registered as a variable in our study and data on the adverse effects of drugs were not gathered.

In our study, depression was the most prevalent reason for psychiatric inpatients requiring a consultation, followed by those with bipolar disorders. Furthermore, we found a statistically significant relationship between movement disorders as reason for consultation and autism, and between movement disorders as a reason for consultation and mood disorders. This confirms the high prevalence of this neurologic disorder cluster in this type of psychiatric patient.

Cognitive disorders

Cognitive disorders were the third most frequent reason for consultation in our study. The prevalence of Alzheimer's disease and other cognitive disorders in people with mental disorders is higher than that found in the normal population, especially in people with psychotic disorders [1], and those with depression [41]. On the other hand, depressive and anxiety symptoms are frequent in the initial phase of dementia [19], and psychotic symptoms in more advanced stages [42]. Last but not least, cognitive symptoms in patients with mood disorders are very frequent and should be correctly identified and not mistaken for Alzheimer's or other kinds of dementia to avoid errors in treatment and consequent development of chronic symptoms [43]. In our population sample, we found a statistically significant relationship in the bivariate analyses with bipolar/schizoaffective disorders, although after including intellectual disability and age in the multivariate analyses, this relationship was not sustained. We believe that the lack of a statistical association between neurologic consultation for cognitive disorders and mood or psychotic disorders in our sample could be due to the setting where the study was performed. In this setting, in some of the units (acute and subacute units), attending a neurologic consultation for cognitive disorder is rare due to relative short stays (i.e., less than three months) with scant time for observation following psychopathologic stabilization. Another explanation could be that the sedative effect of antipsychotic medication could mask some prodromic symptoms characteristic of dementia in psychiatric patients, leading to misdiagnosis.

Finally, we consider that the high number of people with intellectual disability in our study population could play an important role. It is well-known that achieving an accurate diagnosis of cognitive disorder in people with intellectual disability, some of them with extremely limited verbal expression skills, is a great challenge and can result in an underdiagnosis of Alzheimer's disease or other types of dementia.

Table IV. Proportion of neurologic consultations for movement disorders based on the presence of mental health diagnoses (MD) and association between mental health diagnoses and movement disorders in bivariate analysis using chi-squared test and multivariate analysis using logistic regression models[a].

	% with MD	% without MD	Chi-square	Multivariate logistic regression analysis		
			p-value	Odds ratio	ICI 95%	*p*-value
Depression	45.24	22.16	0	**2.70**	**1.05-6.9**	**0.039**
Bipolar disorder	32.05	22.82	0.092	**2.41**	**1.02-5.69**	**0.045**
Schizophrenia	25	24.61	0.943	1.71	0.74-4.01	0.211
Autism	30	24.44	0.575	**6.02**	**1.47-24.62**	**0.013**
Problem behavior	9.76	24.44	0.001	0.98	0.31-3.07	0.972
Age				1.01	0.99-1.04	0.053
Intellectual disability				**0.46**	**0.23-0.93**	**0.031**
Female gender				1.32	0.8-2.21	0.272

CI 95%: confidence interval at 95%; MD: mental health diagnoses. [a] Text in bold indicates statistical significance in the multivariate logistic regression analysis.

Conclusions

This is the first study to analyze the prevalence and typology of neurologic consultations in psychiatric inpatients. Our results indicate frequent presentation of several neurologic symptoms and/or disorders in this population. Epileptic seizures and psychogenic non-epileptic-seizures are common and should be correctly differentiated, as they are often present in the same patient. Movement disorders including parkinsonism and tremor are often side-effects of some psychotropic drugs, although the differential diagnosis of Parkinson´s disease should always be considered. Finally, cognitive disorders such as Alzheimer´s disease are more prevalent in this area than in the general population, although cognitive symptoms associated with mood disorders or resulting from the side-effects of psychotropics drugs should be considered as differential diagnosis.

We consider that a deep knowledge of epilepsy, movement disorders and cognitive disorders should

be prerequisite if health professionals are to treat psychiatric inpatients appropriately. Patients with particular psychiatric disorders seem to require a higher number of neurologic consultations than others during their hospitalization.

Limitations

This study has several limitations. The main one is selection bias due to the inclusion of people from only one mental health institution and to the inclusion of those who received a neurologic assessment following a request from their psychiatrist. As such, we cannot say that this is an epidemiological study. Another limitation is related to the use of the main (neurological and psychiatric) categories, which could lead to other relevant diagnoses going unrecorded.

Future research

We consider that this research should be replicated in future multicenter studies, comparing the rates of neurologic consultations between inpatients and outpatients and between different type of health units (specifically psychogeriatric or patients with intellectual disability). In depth knowledge of the treatment of epilepsy, movement disorders and cognitive disorders in psychiatric patients should be required in these settings. Equally important is the development of a close, collaborative relationship between psychiatrists, neuropsychiatrists and neurologists to provide better care to psychiatric inpatients.

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Comorbilidad neurológica en pacientes psiquiátricos ingresados: evidencia sobre interconsultas de neurología en un centro español

Introducción. La presencia de comorbilidad psiquiátrica en algunos trastornos neurológicos es frecuente. Se ha discutido sobre una influencia bidireccional entre algunos trastornos psiquiátricos y neurológicos, pero este hecho no se ha estudiado ampliamente. Existe escasa información en la bibliografía sobre la tipología y la prevalencia de las interconsultas de neurología en los diferentes tipos de pacientes psiquiátricos hospitalizados.

Materiales y métodos. Estudio transversal basado en datos reales sobre pacientes que necesitaron una interconsulta de neurología durante su hospitalización en salud mental.

Resultados. Los motivos más frecuentes que requirieron una interconsulta de neurología en nuestro estudio fueron el clúster 'Epilepsia/otros tipos de crisis no epilépticas' (*n* = 177; 36,44%), seguido del clúster 'Trastornos del movimiento' (*n* = 77; 20,48%), el clúster 'Trastorno cognitivo' (*n* = 69; 18,35%) y, por último, el clúster 'Neuropatía' (*n* = 21; 5,9%). El tipo más frecuente de paciente psiquiátrico que requirió consulta neurológica presentó un trastorno psicótico (*n* = 100; 26,6%), seguido de problemas de conducta (*n* = 82; 21,81%), trastorno bipolar (*n* = 78; 20,78%), trastorno depresivo (*n* = 42; 11,17%) y trastorno del espectro autista (*n* = 20; 5,32%). Se encontró una relación estadísticamente significativa entre problemas de conducta y discapacidad intelectual e interconsulta de neurología por epilepsia/otros tipos de crisis no epilépticas, y entre trastorno depresivo, trastorno bipolar, trastorno del espectro autista y discapacidad intelectual e interconsulta de neurología por trastornos del movimiento.

Conclusiones. Éste es el primer estudio en la bibliografía que analiza la frecuencia y la tipología de las interconsultas de neurología en personas hospitalizadas con trastornos psiquiátricos. Debe requerirse a los profesionales que traten a pacientes de salud mental hospitalizados un conocimiento profundo en epilepsia, trastornos del movimiento y trastornos cognitivos. Algunos pacientes con determinados trastornos psiquiátricos parecen necesitar un mayor número de interconsultas de neurología que otros durante su hospitalización.

Palabras clave. Comorbilidad neurológica. Discapacidad intelectual. Epilepsia. Neuropsiquiatría. Salud mental. Trastornos del movimiento.