Clinical characteristics of people with borderline personality disorder at 12 months prior to first diagnosis and at diagnosis

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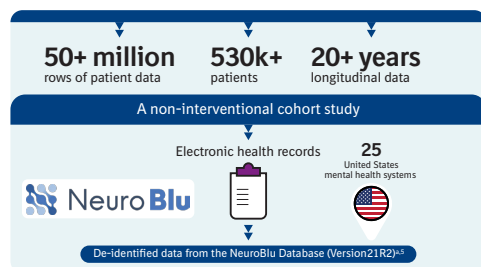
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INTRODUCTION

1 CONTEXT
- Borderline personality disorder (BPD) is a serious psychiatric condition with a diverse range of symptoms; it is associated with high rates of other comorbid psychiatric illness[1-3]
- The disease burden of BPD is closely related to its complex symptomatology, which may lead to difficulties with diagnosis and treatment; factors such as comorbid psychiatric symptom severity and BPD impulsivity symptoms have been shown to influence the degree to which patients respond to treatments such as dialectical behaviour therapy and general psychiatric management[4]

2 UNMET NEED
- A deeper understanding of the clinical characteristics of patients with BPD and any potential subtypes may help to inform the design of clinical trials evaluating new treatments for BPD

3 STUDY AIM
- To better understand the clinical landscape of BPD by gathering real-world data on clinical presentation, treatment pathways and clinical outcomes of individuals with BPD
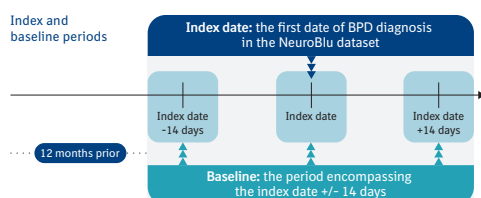
POSTER AIM

Here we present data describing the clinical characteristics of patients with BPD 12 months prior to and during their first diagnosis

METHODS
STUDY DESIGN

- **50+ million** rows of patient data
- **530k+** patients
- **20+ years** longitudinal data

A non-interventional cohort study

Electronic health records

25 United States mental health systems

NeuroBlu

De-identified data from the NeuroBlu Database (Version21R2)[a,5]

[a]a longitudinal behavioural health real-world database comprising both structured and unstructured patient-level clinical data.

Index and baseline periods

Index date: the first date of BPD diagnosis in the NeuroBlu dataset

Index date −14 days / Index date / Index date +14 days

12 months prior

Baseline: the period encompassing the index date +/− 14 days

KEY INCLUSION CRITERIA
- ≥12 years old
- ≥1 recorded diagnosis of BPD between 2001 and 2020

DATA ANALYSES PERFORMED

Descriptive statistics were used to examine the following measures:
- At baseline: patient demographics, psychiatric comorbidities, BPD symptoms (as recorded in the mental status exam), disease severity (clinical global impression-severity [CGI-S]) scores, psychiatric hospitalisations, pharmacological treatment
- 12 months prior to baseline: psychiatric hospitalisations
- 12 months prior to and including baseline: pharmacological treatment

ADDITIONAL CONCLUSIONS

1 Almost all patients had psychiatric comorbidities at the time of diagnosis, in agreement with previous studies that show that comorbid psychiatric disorders are common in patients with BPD[3]

2 These results suggest the need for a better understanding of BPD to help identify unmet patient needs

3 Limitations include 1) lack of clinical history or notes for patients prior to entering the electronic health record, and 2) symptom data may be subject to bias due to clinician's potential prioritisation of some symptoms over others, or due to a symptom not been present at the specific time of clinical presentation or mental state examination

KEY CONCLUSION

A high proportion of patients with BPD were prescribed pharmacological treatments 12 months prior to diagnosis (inclusive of baseline; **Figure 1**), suggesting that individuals face high illness severity, poor functioning and high symptom burden prior to BPD diagnosis
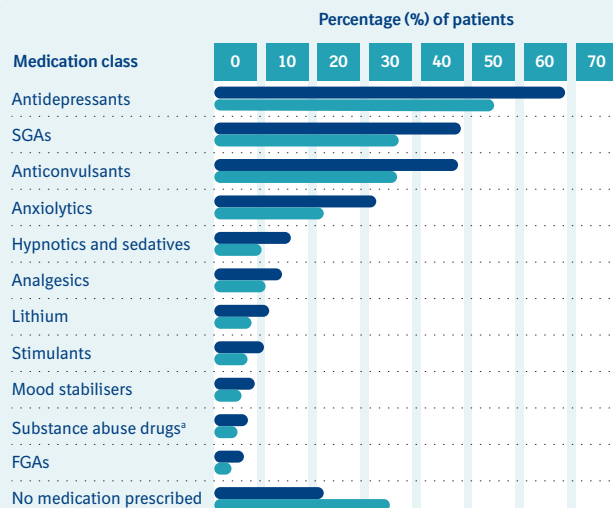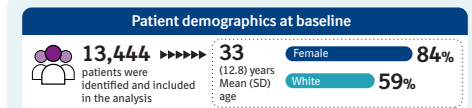
- 12 months prior to and including baseline
- At baseline only

Figure 1. Medication class prescribed at 12 months prior to and including baseline, and at baseline only

Medication classes (Percentage (%) of patients, scale 0–70): Antidepressants, SGAs, Anticonvulsants, Anxiolytics, Hypnotics and sedatives, Analgesics, Lithium, Stimulants, Mood stabilisers, Substance abuse drugs[a], FGAs, No medication prescribed

[a]Includes acamprosate, buprenorphine, disulfiram, methadone, nalmefene, naloxone, naltrexone, nicotine and varenicline.
FGAs, first-generation antipsychotics; SGAs, second-generation antipsychotics

RESULTS

Patient demographics at baseline

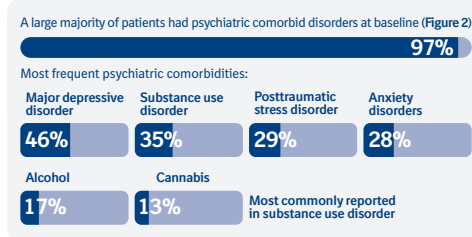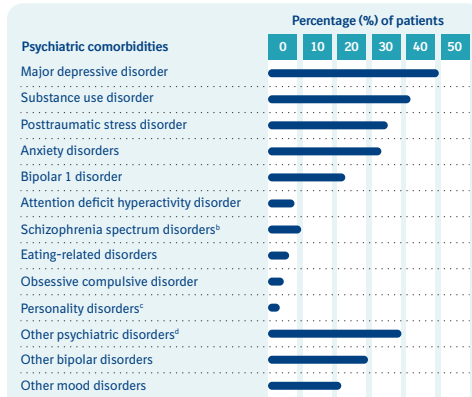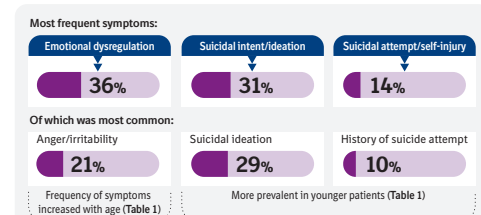**13,444** patients were identified and included in the analysis

33 (12.8) years Mean (SD) age

Female **84%**
White **59%**

PSYCHIATRIC COMORBIDITIES AT BASELINE (N=13,033)

A large majority of patients had psychiatric comorbid disorders at baseline (**Figure 2**)

97%

Most frequent psychiatric comorbidities:
- Major depressive disorder **46%**
- Substance use disorder **35%**
- Posttraumatic stress disorder **29%**
- Anxiety disorders **28%**
- Alcohol **17%**
- Cannabis **13%** — Most commonly reported in substance use disorder

Figure 2. Psychiatric comorbidities at baseline[a]

Percentage (%) of patients (scale 0–50):
Major depressive disorder, Substance use disorder, Posttraumatic stress disorder, Anxiety disorders, Bipolar 1 disorder, Attention deficit hyperactivity disorder, Schizophrenia spectrum disorders[b], Eating-related disorders, Obsessive compulsive disorder, Personality disorders[c], Other psychiatric disorders[d], Other bipolar disorders, Other mood disorders

[a]In patients with at least 1 recorded comorbid diagnosis at baseline; [b]includes schizoaffective disorder, schizophrenia, delusional disorder and schizophreniform disorder; [c]includes antisocial and paranoid, schizoid, schizotypal personality disorders; [d]the top 5 diagnoses classified as "other" include: unspecified personality disorder, observation for other suspected mental condition, unspecified psychosis, adjustment disorder with mixed disturbance of emotions and conduct, intermittent explosive disorder

BPD SYMPTOMS AT BASELINE (N=12,205)[a]

Most frequent symptoms:
- Emotional dysregulation **36%**
- Suicidal intent/ideation **31%**
- Suicidal attempt/self-injury **14%**

Of which was most common:
- Anger/irritability **21%** — Frequency of symptoms increased with age (**Table 1**)
- Suicidal ideation **29%**
- History of suicide attempt **10%** — More prevalent in younger patients (**Table 1**)

[a]Symptoms were derived from mental state examination data using natural language processing;[6] symptoms of interest were determined a priori.

Table 1. BPD symptoms at baseline by age group

Age group (years)	Emotional dysregulation, n (%)	Suicidal intent/ideation, n (%)	Suicidal attempt/self-injury, n (%)
12–17 (n=1048)	377 (36)	394 (38)	194 (19)
18–25 (n=3291)	1157 (35)	1117 (34)	574 (17)
26–35 (n=3280)	1115 (34)	982 (30)	408 (12)
36–45 (n=2297)	823 (36)	666 (29)	305 (13)
46–55 (n=1617)	630 (39)	466 (29)	171 (11)
56–65 (n=546)	218 (40)	156 (29)	45 (8)
>65 (n=126)	50 (40)	38 (30)	9 (7)
Chi² Test statistic (p value)	17 (<0.05)	45 (<0.05)	94 (<0.05)

CGI-S SCORES AT BASELINE (N=13,444)

67% patients categorised as moderately-to-markedly ill

4.6 (1.1) Mean (SD) at baseline

NUMBER OF PSYCHIATRIC HOSPITALISATIONS

- Among patients with ≥1 hospitalisation in the 12 months prior to diagnosis (n=6251), almost half (49%) had ≥2 hospitalisations
- The proportion of patients with >3 hospitalisation visits increased from 4% (186/5174) at baseline to 15% (895/7780) 12 months following a BPD diagnosis

PHARMACOLOGICAL TREATMENTS (N=10,688)

The proportion of patients with pharmacological treatments prior to and including baseline vs baseline only:
80% vs **68%**

The most common were:
- Antidepressants **64%** vs **51%**
- Second-generation antipsychotics **45%** vs **34%**
- Anticonvulsants **45%** vs **34%**

For patients not receiving treatment at baseline (32%), the median (interquartile range) time to first treatment was 57 (149) days

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