

Original Research

Prevalence of personality disorder and psychiatric co-morbidity in an Irish inpatient setting

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Abstract

Introduction: Personality disorders, characterised by pervasive emotional and interpersonal dysfunction, are integral to psychiatric practice. This service review estimated the prevalence of personality disorders in a psychiatric inpatient setting and looked at various clinical and demographic factors of interest.

Methods: Data were retrospectively collected from 526 patients discharged from St Patrick's University Hospital in 2019–2020 under the care of two consultant-led teams. Demographic and clinical data such as age of first mental health contact, number of previous admissions, and risk history were recorded as well as the use of the Structured Clinical Interview for DSM-5 Personality Disorders (SCID-5-PD).

Results: 37% of the sample had at least one personality disorder, with borderline (24.9%), avoidant (13.3%) and obsessive-compulsive (7.6%) being the most common subtypes. Notably, in 72.1% of cases the diagnosis was new. High comorbidity was observed, particularly with affective (47.7%) and anxiety disorders (28.4%). Patients with personality disorders exhibited high rates of self-harm (45%) and suicide attempts (40%).

Discussion: The review highlighted potential delays in diagnosis, with an average of 15 years of mental health service contact prior to diagnosis. The findings underscore the need for specialised services and further research to better understand and manage personality disorders in the Irish psychiatric setting. Limitations include the specific sample from a private mental health facility and the high use of structured interviews, which may affect the generalisability of the results to other settings. This review contributes valuable data to the limited research on personality disorder prevalence in Irish psychiatric services.

Keywords: Borderline personality disorder; Avoidant personality disorder; Anankastic personality; Prevalence; Comorbidity

(Received 18 September 2024; revised 7 January 2025; accepted 26 February 2025)

Introduction

The assessment and treatment of patients with 'Personality Disorder' constitutes a significant proportion of the work of a psychiatrist whether these are the primary difficulties of those patients or ones which impact on the course of related problems such as depressive or psychotic disorders (Kendell 2002; Zimmerman et al., 2008). Personality disorder can be thought of as a set of complex emotional difficulties which are pervasive and enduring and relate to aspects of the self and/or interpersonal dysfunction. Maladaptive cognitive, emotional and behavioural patterns are evident in a range of situations and cause substantial distress or impairment (World Health Organization 2019). There is ongoing debate regarding the diagnosis and the conceptual frameworks underlying personality disorder have been criticised for lacking validity (Bax et al., 2023). The term 'personality disorder' itself is controversial and the condition has been incorrectly viewed as untreatable (Gunderson 2011; Zanarini

et al., 2012). The International Classification of Diseases 11th Revision sets out a new diagnostic framework that moves away from a categorical approach to personality disorder, acknowledges the dimensional nature of personality and draws from existing knowledge regarding the development of personality and its components (Swales 2022).

Given the complexity of these disorders and their manifestation in interpersonal contexts over a long period, it is unsurprising that high levels of healthcare utilisation are related to personality difficulties and disorders across sectors such as primary care, mental health, criminal justice and addiction services (College of Psychiatrists of Ireland 2021). The estimated reduction in life expectancy in those with personality disorder when compared to those without (Years of Potential Life Lost) is fifteen years, comparable to that seen in schizophrenia (Chan et al., 2023). Considering the high level of healthcare utilisation related to personality disorder, both directly and indirectly and its correlation with reduced life expectancy it is important that personality disorder is understood in terms of its prevalence in the Irish psychiatric population.

International research has found personality disorder to be highly prevalent in psychiatric populations, with 40–52% of

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Cite this article: Bredin M, McManus S, and Rush G. Prevalence of personality disorder and psychiatric co-morbidity in an Irish inpatient setting. *Irish Journal of Psychological Medicine* <https://doi.org/10.1017/ipm.2025.15>

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psychiatric outpatients and up to 70% of inpatients estimated to meet criteria for personality disorder (Newton-Howes et al., 2010; Zimmerman et al., 2008). Borderline personality disorder is estimated to have a prevalence of 12–22% in outpatient and inpatient settings respectively (Ellison et al., 2018). Irish data regarding the prevalence of personality disorder is lacking but existing sources estimate that up to 40% of psychiatric inpatients and outpatients have a personality disorder and that borderline personality disorder may be found in 10–20% of mental health outpatient clinics (Carr et al., 2015; Department of Health 2006). An Irish study of the general population using self-report instruments found a prevalence of 6.5% and 14% for Borderline personality disorder and Avoidant Personality Disorder respectively (Hyland et al., 2022). An older study found that 26% of new admissions to two Dublin psychiatric hospitals met criteria for personality disorder using the Standardised Assessment of Personality with no significant difference between public and private settings (Cooney et al., 1996).

Existing monitoring processes for healthcare utilisation in Ireland do not fully reflect the prevalence of personality disorder across inpatient and community settings where most mental health care is delivered. The National Psychiatric In-Patient Reporting System (NPIRS) gathers data on admissions and discharges from all psychiatric hospitals and units registered as Approved Centres under the Mental Health Act 2001. NPIRS data showed a primary personality disorder diagnosis in 8–10% of psychiatric inpatient admissions and discharges in 2019 and 2020 however it is not known what proportion had a comorbid or secondary diagnosis of personality disorder or what proportion of patients using outpatient services are being treated for personality disorder (Health Research Board 2024). Despite personality disorder being the primary diagnosis in up to 10% of psychiatric admissions in Ireland, there are no specialist services for personality disorder and approaches to diagnosis and treatment of personality disorder vary throughout the country. A fundamental barrier to the development of services in Ireland is the deficiency of data regarding the scale of the need across settings (Bourke et al., 2021).

The aim of this service review was to estimate the prevalence of personality disorder by sub-type in a psychiatric inpatient sample, to assess how frequently the diagnosis of personality disorder was made using the Structured Clinical Interview for DSM-5 Personality Disorder (SCID-5-PD) and to characterise the personality disorder population in terms of demographic details, psychiatric background, risk history including self harm and suicide attempts and to explore the prevalence of comorbid psychiatric diagnosis in the group.

Methods

The service review presented in this paper was the first part of a larger research project exploring the views of those with lived experience of personality disorder about the assessment and diagnosis of personality disorder. This was granted ethical approval by the Research Ethics Committee in St Patricks Mental Health Services. The service review used a retrospective cohort design and therefore informed consent was not sought as data collected was accessed in existing clinical notes and anonymised for data collection purposes.

All patients who were discharged from inpatient and home-based treatment (an adaptation to the service in response to the COVID-19 pandemic) in 2019 and 2020 under the care of two consultant led teams in St Patrick's University Hospital were

identified and a review was carried out of their electronic patient records. St Patrick's University Hospital in Dublin is Ireland's largest independent not for profit mental health hospital. It provides a range of mental health services including inpatient care, day patient programmes and outpatient community clinics. Treatment is provided by multidisciplinary teams. Patients undergo an admission assessment on each admission to St Patrick's including a risk assessment and all notes are recorded electronically including scanned copies of paper documentation where relevant.

As this was a retrospective review, the assessment of patients for personality disorder was in line with normal clinical practice for the teams at that time and involved a combination of clinical assessment - incorporating thorough personal and developmental history- and structured assessment using the Structured Clinical Interview for DSM-5 Personality Disorder Version (SCID-5-PD). The SCID-5-PD is a Semi-Structured Interview Guide used to evaluate the ten personality disorder diagnoses used in the Fifth Version of the Diagnostic and Statistical Manual of Mental Disorders. Most patients being assessed with the SCID-5-PD completed a twenty-minute self-report screening questionnaire, the Structured *Clinical Interview for DSM-5 Screening Personality Questionnaire* (SCID-5-SPQ) reducing the time taken to complete the semi-structured interview, which was generally carried out by the team junior psychiatrist or team nurse. Diagnosis of personality disorder was made taking clinical and structured assessments where relevant into account as well as observation of the patient throughout the duration of their assessment and treatment and collateral information from family members.

Discharge diagnoses were recorded based on official discharge summaries. Up to five discharge diagnoses were recorded to include both personality disorder diagnosis and comorbid mental health disorder. Many patients had more than one admission in the period of the review and the service review focused on unique patients rather than each admission episode. Where a patient had multiple admissions within the review period, the diagnosis(es) listed on their most recent discharge summary within the service review period was recorded as discharge diagnosis and the admission diagnosis on their first admission within the service review period was recorded as the admission diagnosis. Information was also taken from patients' admission assessments including structured risk assessments and from inpatient progress notes in cases where the pertinent information could not be located elsewhere.

Data was collected in an anonymised spreadsheet and included Age, Gender, Length of Stay, Primary Admission Diagnosis and Discharge Diagnosis. Where a patient had a discharge diagnosis of at least one personality disorder, further data was collected including employment status, marital status, whether they had children, number of previous admissions, age at first mental health contact, history of suicide attempt, self-harm and violence and whether a SCID-5-PD had been completed during the review period. The prevalence of suicide attempt and self-harm was compared between the group with personality disorder combined with comorbid mental health disorder and personality disorder diagnosis in isolation. Where necessary for comparisons between groups, statistical analysis was carried out using IBM SPSS Version 29.0.1.0. T-tests were used for continuous variables and Chi squared tests for categorical variables.

During the twenty four month review period 530 patients had at least one inpatient or homecare admission under the care of the two Consultant led teams included in the review. Many of these patients had more than one admission in this period. Three patients had very brief admissions and were discharged against

medical advice without a discharge summary and one patient's discharge summary could not be located hence these four patients were not included in data collection or analysis. 526 patients were therefore included in the review.

Results

Demographics

The mean age of those diagnosed with personality disorder on discharge was 41 years (SD = 13.5). Independent samples *t*-test indicated that mean age was older in those not diagnosed with personality disorder at 52 years (SD = 14.4, $p < 0.001$). Age at first mental health contact in those diagnosed with personality disorder was recorded in 65% ($n = 128$) cases and the mean age was 25 years old (SD = 11.5 years).

61.4% ($n = 121$) of the personality disorder group were female, with a similar proportion of females in the non personality disorder group (62.3%, $n = 205$). 36% ($n = 69$) of the group who received a diagnosis of personality disorder were married or cohabiting and 64% ($n = 126$) either single or separated/divorced. 49.7% ($n = 98$) were noted to be employed and an additional 5.1% ($n = 10$) on sick leave. 29.4% ($n = 58$) were noted to be unemployed. 6.6% ($n = 13$) were students. The remaining 9.1% ($n = 18$) were noted to be retired or on disability allowance.

Personality disorder prevalence

37% ($n = 197$) had at least one personality disorder recorded on their discharge summary. Of those with a diagnosis of personality disorder, 36% ($n = 70$) had at least two personality disorder diagnoses and 12% ($n = 24$) met criteria for three personality disorders. Personality disorder was a new diagnosis in 72.1% of the group ($n = 142$).

Eighty per cent ($n = 158$) of those with a discharge diagnosis of personality disorder had undergone assessment with SCID-5-PD as part of diagnosis. Of the 20% with a personality disorder diagnosis who did not undergo SCID-5-PD, 49% ($n = 21$) had an admission diagnosis of personality disorder indicating a pre-existing diagnosis.

The most common personality disorder diagnoses were Borderline (24.9%, $n = 131$), Avoidant (13.3%, $n = 70$) and Obsessive Compulsive (7.6%, $n = 40$) (Table 1 Personality Disorder Subtypes). Of those with a diagnosis of Borderline Personality Disorder, 27.4% ($n = 36$) also had Avoidant Personality Disorder making this the most frequently occurring combination in the group reviewed and 13% ($n = 17$) had comorbid Obsessive Compulsive Personality Disorder.

Comorbidity

31.5% ($n = 62$) of those with personality disorder were not diagnosed with any other major psychiatric disorder while the most common comorbid diagnoses were Affective and Anxiety Disorders occurring in 47.7% ($n = 94$) and 28.4% ($n = 56$) respectively (Table 2 Comorbid axis 1 disorders in those with personality disorder). Within those with comorbid affective disorders, most were diagnosed with Major Depressive Disorder with single episode or recurrent pattern (30.9%, $n = 61$) and 12.2% ($n = 24$) had Dysthymic disorder. The most common comorbid anxiety disorders were generalised anxiety disorder (7.6%, $n = 15$) and Post-Traumatic Stress Disorder (6.1%, $n = 12$). 5.1% ($n = 10$) were recorded to have a diagnosis of Mixed Anxiety

Table 1. Personality disorder subtypes (% of the 526 patients reviewed)

Personality disorder	n	%
Borderline	131	24.9
Avoidant	70	13.3
Obsessive Compulsive	40	7.6
Dependent	10	1.9
Paranoid	8	1.5
Mixed and other Personality Disorders F61.X	7	1.3
Narcissistic	6	1.1
Personality Disorder unspecified F60.9	5	1.0
Other Specific Personality Disorder F60.8	4	0.8
Antisocial	3	0.6
Schizoid	1	0.2
Schizotypal	1	0.2
Histrionic	0	0.0

Table 2. Comorbid axis 1 disorders in those with personality disorder (% of the 197 patients with personality disorder)

Diagnostic category	n	%
No Axis I Disorder	62	31.5
F10-F19 Psychoactive Substance Use	25	12.7
F20-F29 Psychotic Disorders	2	1.0
F30-F39 Affective Disorders	94	47.7
F40-F48 Anxiety Disorders	56	28.4

and Depression. Prevalence of co-morbid eating disorder or psychotic disorder was low at just 1% ($n = 2$).

Psychiatric history and risk

In those who received a diagnosis of personality disorder, 45% ($n = 89$) had a reported history of self harm and 40% ($n = 79$) a history of suicide attempt. Chi-Squared tests were used to compare those with personality disorder diagnosis with and without comorbid Axis I disorders. Patients with a diagnosis of personality disorder without comorbid Axis 1 disorder had a higher rate of self harm (60%, $n = 38$ vs 39% $n = 52$, $p = 0.006$) and a non-significant higher rate of suicide attempt (46.7% $n = 29$ vs 37% $n = 50$, $p = 0.129$). 5% ($n = 10$) had a recorded history of violence. The mean number of previous psychiatric admissions in the group diagnosed with personality disorder was 3.2 (SD = 6.92).

Discussion

A number of factors limit the generalisability of these findings. Patients were selected if they were under the care of two specific consultant led teams in the 2019/2020 period. Those teams routinely use SCID-5-PD as part of diagnostic formulation where personality disorder is suspected. The proportion of those without a diagnosis of personality disorder who underwent SCID-5-PD was not examined in this review however SCID-5-PD was carried out in 80% of the group with a personality disorder diagnosis ($n = 158$) meaning at least 30% of all inpatients reviewed underwent SCID-5-PD. This suggests that SCID-5-PD was feasible

and not overly onerous to complete in this setting. However use of structured interviews may result in more frequent detection of personality disorder and may be less feasible in outpatient settings.

Assessment of personality in an acute setting can result in higher prevalence of personality disorder as the presence of co-occurring acute psychiatric illness can increase personality pathology (Zimmerman et al., 2008). Research should explore the prevalence of personality disorder in a variety of psychiatric settings.

While St Patrick's mental health services deliver day programmes and outpatient care, its delivery of service leans more toward an inpatient model when compared to publicly funded community mental health teams and therefore the inpatient cohort examined in this review is not directly comparable to inpatient cohorts around Ireland. NPIRS data from 2019 suggests that those discharged from centres under the category 'Independent/Private and Charitable Centres' had much lower levels of Schizophrenia than those in general hospital psychiatric units or psychiatric hospitals/continuing care facilities (7% vs 25% and 29%, respectively) but higher levels of Depressive disorders (36% vs 22% and 15%) (Health Research Board, 2024). Accordingly, the prevalence of personality disorder identified in this review may be more indicative of the prevalence in outpatient psychiatric settings in publicly funded settings. While it is recognised that comorbidity of personality disorder in psychotic disorders is common, the low prevalence of co-morbid psychotic disorder is likely related to the relatively low prevalence of psychotic disorder in this hospital population in comparison with public services (Wang et al., 2021). The low prevalence of eating disorders in the group may relate to the separate pathway of care and specialist programme for patients with eating disorders within St Patrick's Mental Health Services.

The prevalence of any personality disorder in the sample was 37% ($n = 197$) which is on the lower end of the range of inpatient prevalence of personality disorder typically cited in existing international research (Morgan et al., 2022). The prevalence identified in the review is more than three times higher than the proportion of psychiatric inpatients with a recorded discharge diagnosis of personality disorder in the same time period recorded by the National Psychiatric Inpatient Reporting System though that database records primary diagnosis rather than all diagnoses. The prevalence of borderline personality disorder in the present review is consistent with previous research which has found a prevalence of approximately 10% in community clinics and 20% in inpatient settings (Ellison et al., 2018). If the proportion of those in the review with a diagnosis of personality disorder is loosely indicative of the prevalence of personality disorder across mental health settings nationally, it highlights the need for the provision of evidence based treatments for personality disorder and in particular talking therapies which are not consistently available throughout Irish public mental health services.

Personality disorder was a new diagnosis in 72.1% of the group. Those with a personality disorder diagnosis had been attending mental health services for on average fifteen years with a mean number of previous admissions of 3.2. This may suggest a delay in diagnosis of personality disorder which has been described in previous research. Tedesco et al (Ledden et al., 2022) found that an average of 18.1 years elapsed between symptom onset and diagnosis of borderline personality disorder and the authors note that stigma and therapeutic nihilism has been linked to delayed diagnosis and misdiagnosis. A scoping review has found that a wide range of psychological therapies are superior to treatment as usual for personality disorder but there is overall a relative lack of robust evidence on how to provide high quality care for those with 'complex

emotional needs' when compared to other long term mental health conditions (Ledden et al., 2022). This lack of evidence may contribute to clinicians' uncertainty regarding the benefit of diagnosis. Other explanations for this finding include a lack of stability of this diagnosis over time or a delayed manifestation of the diagnosis (d'Huart et al., 2022). Later presentations of personality disorder are now recognised in the ICD-11 approach to diagnosis which highlights that personality disorder can present at any age though in most cases features of the disorder will be evident from late adolescence to early adulthood (Jo et al., 2023).

In the absence of evidence based targeted treatments for personality disorder, the psychiatrist's focus may turn to the management of comorbid mental illness. However almost a third of those with personality disorder diagnosis in the review did not have a comorbid mental health diagnosis, while still demonstrating high levels of self harm and suicide attempts and symptoms which resulted in psychiatric admission. Where there was a comorbid mental health diagnosis, high levels of dysthymia and adjustment disorder were seen, diagnoses where there is little role for pharmacological or inpatient interventions. This illustrates again the need for psychotherapy-based services for this cohort in primary and secondary care.

More than one third of those with personality disorder met criteria for at least two personality disorders and 12% had at least three personality disorders. By far the most common combination of disorders was Borderline personality disorder from Cluster B and Avoidant personality disorder from Cluster C, found in 7% ($n = 36$) of the 526 patients reviewed. This is reflective of the limitations of the categorical approach to personality disorder diagnosis and points to the suggestion that borderline personality traits are not specific and that it may be more helpful to view a diagnosis of borderline personality disorder as indicative of moderate to severe personality disorder pathology in general (Tyrer and Mulder 2024).

This service review contributes to a dearth of research in the area of personality disorder prevalence in psychiatric services in Ireland and points to a need for further research in this area in order to inform the development of necessary specialist services for personality disorder and increased availability of psychotherapy services in primary and secondary care.

Financial support. This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Competing interests. The authors declare none.

Ethical standard. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. The Service Review was approved by the St Patrick's Post Graduate Audit Committee on 11th November 2021.

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