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The Use of Psychotropic Medication in Patients With Emotionally Unstable Personality Disorder Under the Care of UK Mental Health Services

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ABSTRACT

Background: Guideline recommendations for the pharmacologic treatment of personality disorder lack consensus, particularly for emotionally unstable personality disorder (EUPD), and there is limited information on current prescribing practice in the United Kingdom.

Objective: To characterize the nature and quality of current prescribing practice for personality disorder across the United Kingdom, as part of a quality improvement program.

Method: A cross-sectional survey of self-selected psychiatric services providing care for adults with personality disorder (*ICD-10* criteria) was conducted. Data were collected during May 2012.

Results: Of 2,600 patients with a diagnosis of personality disorder, more than two-thirds (68%) had a diagnosis of EUPD. Almost all (92%) patients in the EUPD subgroup were prescribed psychotropic medication, most commonly an antidepressant or antipsychotic, principally for symptoms and behaviors that characterize EUPD, particularly affective dysregulation. Prescribing patterns were similar between those who had a diagnosed comorbid mental illness and those who had EUPD alone, but the latter group was less likely to have had their medication reviewed over the previous year, particularly with respect to tolerability (53% vs 43%).

Conclusions: The use of psychotropic medication in EUPD in the United Kingdom is largely outside the licensed indications. Whether the treatment target is identified as intrinsic symptoms of EUPD or comorbid mental illness may depend on the diagnostic threshold of individual clinicians. Compared with prescribing for EUPD where there is judged to be a comorbid mental illness, the use of off-label medication for EUPD alone is less systematically reviewed and monitored, so opportunities for learning may be lost. Treatment may be continued long term by default.

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People with personality disorder have long-standing, pervasive patterns of thinking, feeling, and relating to others that lead to social dysfunction and poor mental health. Compared with the general population, they are more likely to experience suicidal thoughts and behavior and symptoms of depression, anxiety, and psychosis; exhibit impulsive behavior; and fulfill diagnostic criteria for a range of mental disorders.[1]

Among people in contact with mental health services, the most common type of personality disorder is emotionally unstable personality disorder (EUPD), characterized by affective instability, impulsivity, anger, transient psychotic or dissociative symptoms, and unstable relationships. The National Institute for Health and Care Excellence (NICE) guideline[1] on the treatment and management of borderline personality disorder (BPD) acknowledges that this condition does not exist as a distinct diagnostic category within *ICD-10*,[2] although there is "an equivalent category of disorder termed 'emotionally unstable personality disorder, borderline type' characterized by instability in emotions, self-image and relationships."[1(p17)] *ICD-10* includes a brief description of BPD as a subcategory of EUPD.

No drug treatments are currently licensed for EUPD or BPD. The American Psychiatric Association (APA) guidelines for BPD endorse a symptom-targeted approach and provide pharmacologic algorithms for impulsivity, aggression, and affective instability[3]; these guidelines have not been revisited since 2001. The current (2008) NICE guidelines[1] state that, while comorbid mental health problems should be treated, drug treatment should not be used specifically to alleviate intrinsic features of the disorder. Australian guidelines, published in 2012, recommend that medicines should not be a primary therapy but that time-limited use for specific symptoms can be considered as an adjunct to psychological therapy.[4]

In clinical practice, the high levels of emotional distress experienced by some people with personality disorder, together with a perceived need to offer rapidly effective treatments when patients present in crisis, mean that drug treatments are often used. Both international and relatively small local UK surveys of prescribing practice for people with personality disorder suggest that psychotropic medication is prescribed for the majority, often over long periods of time, and that polypharmacy is common.[5–10]

We report here on selected findings from a large, UK-wide study of prescribing practice for people with personality disorder, addressing the prevalence of prescribing of psychotropic drugs for people with EUPD, the clinical rationale for such prescriptions, and the quality of medication review.

METHOD

The Prescribing Observatory for Mental Health[11] invited all National Health Service Trusts and other health care organizations (hereafter referred to as "Trusts") in the United Kingdom providing specialist mental health services to participate in an audit-based quality improvement program focusing on the use of psychotropic medication in people with

Clinical Points

- Psychotropic medication is often prescribed off-label for people with emotionally unstable personality disorder (EUPD) who do not have a comorbid mental illness.
- Such prescribing is for a wide variety of target symptoms, most commonly depressive symptoms, affective instability, anxiety, and disturbed sleep.
- By ensuring regular medical review of target symptoms and treatment side effects, clinicians can gain greater understanding of the utility of pharmacologic approaches in both the short- and longer-term management of EUPD and minimize exposure to unnecessary long-term treatment.

personality disorder. All services were self-selected in that they chose to participate and were asked to submit data on a randomly selected sample of patients with a confirmed *ICD-10* diagnosis of personality disorder. In UK mental health services, *ICD-10* diagnoses are recorded as part of routine clinical care.

Data collected on each patient included age, gender, ethnicity, subtype of personality disorder, comorbid psychiatric diagnoses, psychotropic medication prescribed and the duration of prescription, clinical indications for such medication, availability of a patient-specific crisis plan and whether this mentioned the role of medication, the date of the most recent medication review and whether therapeutic response and tolerability were addressed, and the clinical service providing care.

All data were collected from clinical records with the exception of the clinical rationale for treatment; clinical teams were asked to identify the treatment targets for each medication prescribed, selecting from a list of potential symptoms and behaviors generated by a panel of clinical experts or providing a free-text response.

Data were collected during May 2012 using SNAP (electronic survey software; Snap Surveys Ltd) and analyzed using SPSS Version 20.0.[12] Descriptive statistics were used to compare those patients with personality disorder alone with those who had a comorbid *ICD-10* mental illness.

RESULTS

Demographic and Clinical Characteristics of the Sample

Forty-one Trusts submitted data for 2,600 patients from 438 clinical teams: 1,054 (40.5%) of these patients had a personality disorder as their sole psychiatric diagnosis, while 1,546 (59.5%) had personality disorder with at least 1 comorbid psychiatric illness. The demographic and clinical characteristics of these 2 subgroups are shown in Table 1.

Almost two-thirds (63%) of the sample were under the care of general adult psychiatric services, and just under a quarter (24%) were under the care of specialist personality disorder services. Most (88%) were outpatients.

When the subgroups with and without a comorbid psychiatric diagnosis were compared, there was a higher prevalence of dissocial personality disorder (21% vs 15%, $\chi^2_1 = 13.81$, $P < .001$) and a lower prevalence of EUPD (64% vs 75%, $\chi^2_1 = 32.14$, $P < .001$) in the former. The subgroups were similar with respect to all other demographic characteristics and personality disorder diagnoses.

Of the 1,054 patients with personality disorder alone, 82% were prescribed at least 1 psychotropic medication, while the

Table 1. Demographic and Clinical Characteristics of the Subsamples With Personality Disorder Alone (n = 1,054) or Personality Disorder and a Comorbid Psychiatric Illness (n = 1,546)

Characteristic	Personality Disorder Alone (n = 1,054), n (%)	Personality Disorder With Comorbid Mental Illness (n = 1,546), n (%)
Gender		
Female	663 (63)	870 (56)
Male	391 (37)	676 (44)
Ethnicity		
White/white British	926 (88)	1,355 (88)
Black/black British	26 (3)	55 (4)
Asian	16 (2)	41 (3)
Mixed or other	22 (2)	24 (2)
Unspecified/unknown	64 (6)	71 (5)
Age, y		
16–25	173 (16)	229 (15)
26–35	268 (25)	383 (25)
36–45	294 (28)	455 (29)
46–55	220 (21)	344 (22)
≥ 56	99 (9)	135 (9)
ICD-10 personality disorder diagnosis		
F60.0: Paranoid	65 (6)	87 (6)
F60.1: Schizoid	15 (1)	29 (2)
F60.2: Dissocial	160 (15)	324 (21)
F60.3: Emotionally unstable	786 (75)	990 (64)
F60.4: Histrionic	24 (2)	20 (1)
F60.5: Anankastic	13 (1)	16 (1)
F60.6: Anxious	48 (5)	54 (4)
F60.7: Dependent	28 (3)	45 (3)
F60.8: Other specific	18 (2)	15 (1)
F60.9: Unspecified	59 (6)	82 (5)
F61: Mixed and other	57 (5)	83 (5)
Subtype not yet determined	26 (3)	52 (3)
More than 1 personality disorder diagnosis	161 (15)	195 (13)
Comorbid *ICD-10* diagnoses		
F00–F09: Organic, including symptomatic mental disorders	…	18 (1)
F10–19: Mental and behavioral disorders due to psychoactive substance use	…	324 (21)
F20–29: Schizophrenia, schizotypal, and delusional disorders	…	406 (26)
Schizotypal	…	54 (13)
F30–39: Mood (affective) disorders	…	609 (39)
Bipolar disorder	…	135 (22)
F40–49: Neurotic, stress related, and somatoform disorders	…	266 (17)
F50–59: Behavioral syndromes associated with physiological disturbances and physical factors	…	87 (6)
F70–79: Mental retardation	…	107 (7)
F80–89: Disorders of psychological development	…	29 (2)
F90–98: Behavioral and emotional disorders with onset occurring in childhood and adolescence	…	64 (4)
F99: Unspecified mental disorder	…	4 (< 1)
Other	…	49 (3)
None documented	1,054 (100)	…

Figure 1. Prevalence of Prescribing of Different Classes of Psychotropic Medication in the Subsamples With Emotionally Unstable Personality Disorder (EUPD) Alone (n = 786) or EUPD With Comorbid Psychiatric Diagnosis

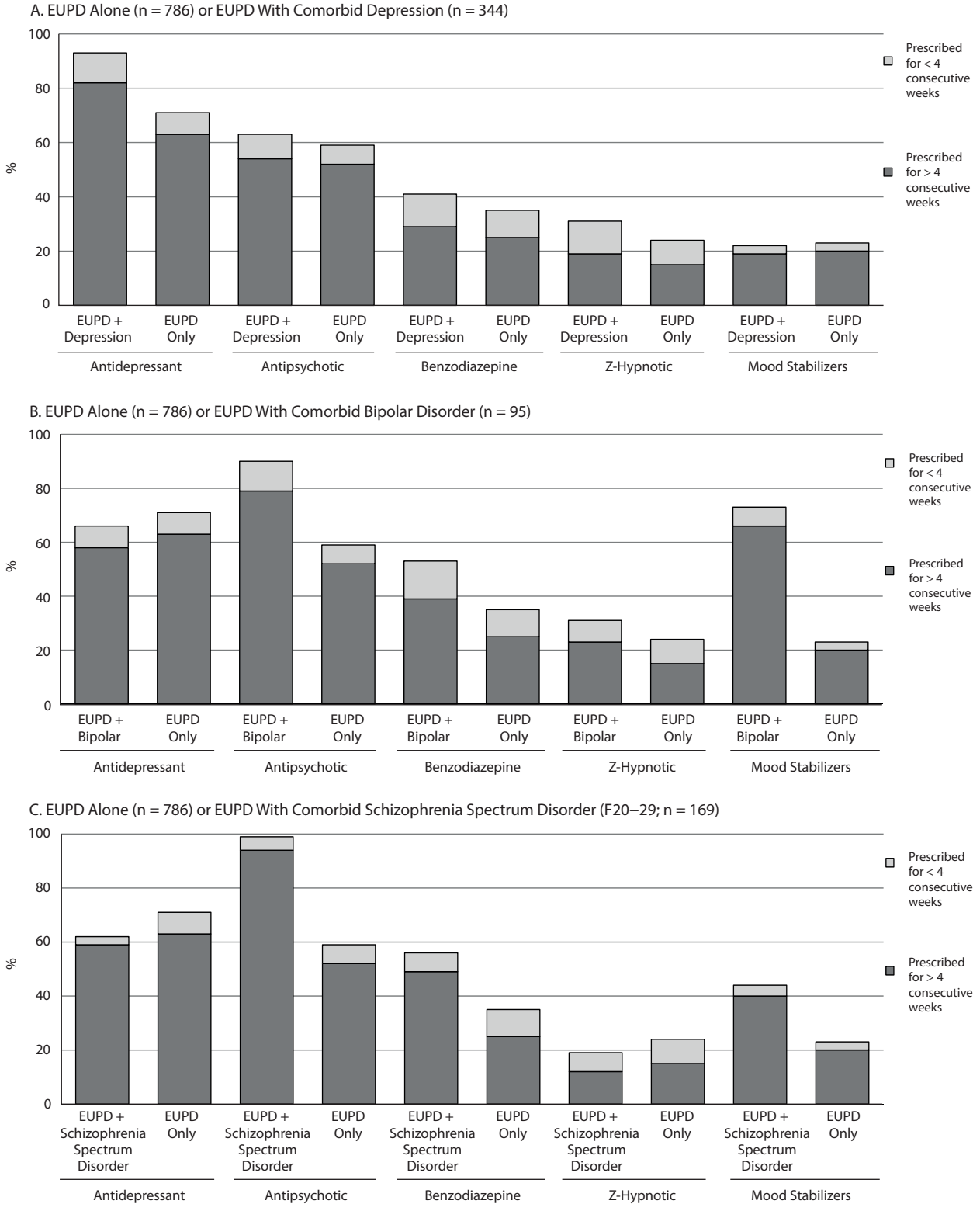

Table 2. Clinical Reasons for Prescribing for Emotionally Unstable Personality Disorder Alone Across the 4 Main Groups of Psychotropic Medications (n = 786)[a]

Reason	Proportion of Patients Prescribed ≥ 1 Drugs for Each Indication	Antidepressant	Antipsychotic	Mood Stabilizer	Sedative
Affective dysregulation					
Depressive symptoms	52	50	6	< 1	1
Affective/emotional instability	45	16	27	17	4
Aggression/hostility	19	1	14	4	7
Impulsive-behavioral					
Impulsivity	17	4	12	3	3
Self-harm	18	8	12	3	3
Cognitive-perceptual					
Transient psychotic-like experiences or symptoms	15	< 1	14	1	< 1
Depersonalization/derealization	2	< 1	1	1	…
Suspected psychotic illness	3	…	3	< 1	…
Other					
Anxiety (including phobic anxiety and panic)	37	17	14	1	19
Disturbed sleep	38	10	7	< 1	30
Distress	22	7	10	2	11
Patient request	15	3	4	< 1	4
Other specified reason[b]	16	2	4	< 1	4
Not known	15	8	7	2	4

[a]Values expressed as percentages.
[b]The "other" category included anorexic/bulimic symptoms, obsessional thoughts or acts, stress-related adjustment reactions, and failure of other treatments.

Table 3. Availability of Crisis Plans, Patients' Involvement in Their Development, and Whether Crisis Plans Mention Medication in Patients With Emotionally Unstable Personality Disorder (EUPD) Alone or EUPD With a Comorbid Psychiatric Diagnosis

Crisis Plan	EUPD Alone (n = 786), n (%)	EUPD Plus Comorbid Psychiatric Diagnosis (n = 990), n (%)	χ^2_1	*P*
Available	569 (72)	730 (74)	0.40	.525
With patient involvement	412 (52)	548 (55)	1.52	.217
Mentions medication	213 (27)	338 (34)	10.15	.001

figure for those who had personality disorder and at least 1 comorbid psychiatric diagnosis (n = 1,546) was 94%.

Emotionally Unstable Personality Disorder

The most common personality disorder diagnosis was EUPD (n = 1,776: 68% of the total sample). Patients in the EUPD group, as compared with those with the other subtypes of personality disorder, were more likely to be female (73% vs 29%, $\chi^2_1 = 484$, $P < .001$) and less likely to have a diagnosis of schizophrenia spectrum disorder (9% vs 29%, $\chi^2_1 = 158$, $P < .001$). All other demographic and clinical characteristics were similar to those in the total sample of people with personality disorder (see Table 1).

Prescribing Practice for EUPD

Patterns of prescribing in those with EUPD alone or with comorbid depression, schizophrenia spectrum disorder, or bipolar disorder are shown in Figure 1. In the majority of patients with EUPD, medicines had been prescribed for at least 4 weeks.

Antipsychotics and mood stabilizers were prescribed more often in those with a comorbid diagnosis of schizophrenia spectrum disorder or bipolar disorder than in those whose only psychiatric diagnosis was EUPD. However, all groups of psychotropic medications were also commonly prescribed in the latter group.

Ninety-two percent of the patients with EUPD were prescribed psychotropic medication. Of the 786 patients who had EUPD as their sole psychiatric diagnosis, 101 (13%) were not prescribed psychotropic medication; 164 (21%) were prescribed psychotropic medication from 1 class; 218 (28%), from 2; 179 (23%), from 3; and 124 (16%), from 4 or more. The clinical reasons for prescribing each of the main groups of psychotropic medicines are shown in Table 2.

The availability of crisis plans, the involvement of patients in the development of these plans, and the proportion of patients whose crisis plan incorporated the role of medication are shown in Table 3. When those with and without a comorbid psychiatric diagnosis were compared, the former were more likely to have had a crisis plan that mentioned medication and to have had their medication reviewed in the last year and for this review to have addressed the side effects of medication. These data are shown in Tables 3 and 4.

DISCUSSION

In this large sample of people with personality disorder who were in contact with mental health services, over half had a diagnosed comorbid mental illness, and more than two-thirds had a diagnosis of EUPD. That EUPD was the most common personality disorder diagnosis is consistent with other surveys.[6,13,14]

Almost all of the patients in the EUPD subgroup were prescribed psychotropic medication, most commonly to

Table 4. Proportion of Patients With Emotionally Unstable Personality Disorder (EUPD) Alone or EUPD With a Comorbid Psychiatric Diagnosis Who Were Prescribed Medication for More Than 4 Weeks and Had Their Medication for More Than 4 Weeks Reviewed in the Last Year

Medication Review	EUPD Alone (n = 687), n (%)	EUPD Plus Comorbid Psychiatric Diagnosis (n = 949), n (%)	χ^2_1	*P*
In the last year	498 (72)	739 (78)	6.26	.012
Included statement about efficacy	421 (61)	627 (66)	3.97	.046
Included statement about side effects	294 (43)	501 (53)	15.96	< .001

target symptoms and behaviors that characterize personality disorder. Those patients with EUPD alone were less likely to have had medication mentioned in their crisis plan and to have had their prescribed medication reviewed in the previous year compared with those who had a diagnosed comorbid mental illness. This suggests that the regular and thorough monitoring recommended when using medicines for unlicensed indications[15] is not happening in clinical practice.

Most EUPD Patients Had Comorbid Mental Illness

The relatively high prevalence of comorbid mental illness in patients with personality disorder is consistent with the published literature.[1,8,9,16]

Many of the symptoms of EUPD overlap with those of mental illness but may not reach the qualitative or quantitative criteria required for a comorbid diagnosis in that they are not severe enough or do not last long enough. In routine practice, clinicians are likely to differ in their individual thresholds for a diagnosis of a comorbid condition, with, for example, some considering even severe mood lability to be consistent with a diagnosis of EUPD, while others would diagnose comorbid bipolar disorder. By comparing those patients not considered by their treating clinicians to have mental illness comorbid with their EUPD with those with a diagnosed comorbid illness, we were able to examine in detail the clinical rationale for prescribing psychotropic medication for the former group.

High Prevalence of Psychotropic Drug Prescribing for EUPD

Our finding that at least 4 of 5 patients with EUPD were prescribed psychotropic medication is consistent with other surveys of prescribing practice.[5,7–9] Polypharmacy was also common with two-thirds of patients with EUPD alone prescribed psychotropic drugs from at least 2 different classes and almost a fifth from at least 4. This is consistent with Zanarini et al,[6] who reported that 11% of those with EUPD were taking 5 or more psychotropic drugs, although these investigators included patients with comorbid mental illness. Those patients with EUPD alone who are under the care of mental health services are likely to be those with more severe and disabling symptoms. Nevertheless, that almost 1 in 5 of those with EUPD alone was prescribed psychotropic drugs from at least 4 classes suggests that these patients displayed a range of symptoms and behaviors that clinicians considered potentially responsive to drug treatment. Such an approach to prescribing is consistent with the symptom-based recommendations made by the APA[3] and the conclusions of recent systematic reviews,[17,18] but not the NICE recommendations for the NHS.[1]

In our subgroup of patients with EUPD alone, three-quarters were prescribed an antidepressant; three-fifths, an antipsychotic drug; one-third, a benzodiazepine; and one-fifth, a z-hypnotic or mood stabilizer. The high prevalence of antidepressant use is consistent with other surveys of prescribing practice[8–10] but in contrast with the findings from clinical studies that these drugs are not effective in treating affective symptoms in patients with EUPD[17] and are relatively less effective in treating depression in people with comorbid personality disorder than in those without.[19,20] A higher proportion of our patients with EUPD were prescribed an antipsychotic than the 40% reported by Pascual et al[8] in a naturalistic study of 226 consecutive patients with BPD admitted to an outpatient program, although these investigators noted an increasing prevalence of antipsychotic prescribing over time. In contrast, our prevalence of prescribing of mood stabilizers and benzodiazepines was considerably lower than the 60% reported by the same authors.

The prevalence of antipsychotic prescribing in those with EUPD alone was almost double the figure we found in a smaller audit of prescribing practice for personality disorder across 3 London mental health Trusts.[9] In this earlier audit, variation in prescribing practice was seen across services, with those patients in contact with specialist personality disorder services less likely to be prescribed psychotropic medication than those under the care of general adult psychiatry. This suggests that clinicians in these specialist services may be more aware of the evidence base underpinning the use of psychotropic drugs in people with personality disorder and/or may have more time and access to skills to manage the symptoms and behaviors associated with EUPD.

Most Prescriptions for Personality Disorder Rather Than Comorbid Mental Illness

There was evidence that some prescribing for people with EUPD was targeted toward comorbid mental illness in that antidepressants were more frequently prescribed for those with a diagnosis of depression than for those without, while antipsychotics and mood stabilizers were more frequently prescribed for those who had a diagnosis of a schizophrenia spectrum disorder or bipolar illness than for those who did not. Further, those with a comorbid diagnosis of bipolar disorder were marginally less likely to be prescribed an antidepressant than those with EUPD alone, a finding that, perhaps, reflects awareness of the growing literature reporting on the poor efficacy of antidepressants for bipolar depression.[21,22] However, the pattern of prescribing was sufficiently similar between those with EUPD with or without

a comorbid mental illness to suggest that most prescribing was not clearly targeting comorbid conditions. It is therefore reasonable to conclude that clinicians extrapolate from the symptoms/behaviors associated with mental illness and, for those patients with EUPD alone, prescribe medication that targets these phenomena. Such a pragmatic approach to prescribing is consistent with the recommendations of the APA guideline for BPD[3] but in direct contrast with the UK NICE guideline.[1]

Emotionally unstable personality disorder is a complex condition in that a range of psychiatric symptoms and aberrant behaviors are seen, with common crises that are characterized by impulsive behavior, emotional distress, suicidal thoughts or acts, and aggression. The suicide rate in EUPD is at least as high as that for schizophrenia, bipolar disorder, or depression,[23] a concern that may prompt clinicians to actively intervene during periods of crisis and in the longer term. However, the evidence base underpinning the management of EUPD is limited and difficult to interpret: the majority of pharmacologic studies are underpowered to detect any treatment effect should one exist, varying inclusion criteria are used (with/without a variety of key symptoms or comorbidities), and a large number of rating scales and outcome measures are employed that render meta-analysis difficult, if not impossible. When there is such a limited literature, small randomized controlled trials, case series, and even single case studies that are published in widely read journals may disproportionately influence clinical practice. Clinicians also rely on their past experience and on the opinions of their peers. The resultant combination of an urgent clinical problem, the absence of a robust evidence base on which to base treatment decisions with reliance on lower levels of evidence, and extrapolation from what is known about the treatment of conditions with which there is overlap of symptoms may partly explain the range of drugs being prescribed in clinical practice to treat a variety of symptoms.

According to the APA guidelines, pharmacologic management of BPD can be informed by the identification of prominent symptom domains or clusters.[3,24] Table 2 lists the reasons given by clinicians for prescribing individual drug classes. Allowing for some lack of alignment between target symptoms identified by UK expert clinicians and the APA domains, it appears that the affective disorder domain is the target for most prescriptions, with cognitive-perceptual symptoms being a less-frequent target.

Depressive symptoms were the most common treatment target, identified in over half of those patients with EUPD alone. The most common pharmacologic intervention for this indication was antidepressant medication. While this may be considered to reflect a symptom-targeted approach, it should be noted that the risk-benefit ratio associated with antidepressant treatment is not considered to be favorable in subsyndromal depression, with[20] or without[25] personality disorder. In contrast, there is some evidence[17] that mood stabilizers are effective against depressed mood in the context of personality disorder, although drugs from this group were rarely prescribed for this indication.

The second most common reason for prescribing for EUPD alone was affective/emotional instability. Antipsychotics were prescribed for this indication in over a quarter of patients, while antidepressants and mood stabilizers were each prescribed for almost a fifth. Evidence supports only the use of mood stabilizers.[17]

The APA[3] recommends symptom-specific algorithms for managing impulsivity and aggression; these behaviors have been shown in a variety of electrophysiologic, endocrine, and neuroimaging studies to have demonstrable neurobiological correlates[26] and so may be considered potentially legitimate targets for drug treatments. However, while the use of a mood stabilizer to reduce impulsivity was supported by a recent review[18] of the evidence, the APA recommendation to use an antipsychotic for such a purpose was not. We found that almost 1 in 5 patients was prescribed medication to manage aggression/hostility, and a further 1 in 5 was prescribed medication to reduce impulsivity. The most frequently used pharmacologic intervention in both cases was an antipsychotic. Antipsychotics were also used to treat transient psychotic-like experiences or symptoms, a strategy for which there is only modest supporting evidence.[18,27] Benzodiazepines and other sedatives were used primarily to treat anxiety and disturbed sleep, indications for which they are licensed. Distress, which may of course lead to or result from anxiety and insomnia, was also a target symptom.

Crisis Plans and Medication Review

The role of medication was more likely to be described in the crisis plan for patients who had a comorbid mental illness than for those with a EUPD diagnosis alone (34% vs 27%), and the former group was also more likely to have their medication reviewed, particularly with respect to tolerability (53% vs 43%). Although the magnitudes of these differences were numerically relatively small, they suggest that comorbidity may drive more frequent review of treatment and side effects. Off-label prescribing may be less likely to conform to practice guidelines,[15] that is, not be in the context of an individual treatment trial or meet monitoring requirements, and the opportunity to learn may be lost. A possible consequence is that patients remain on treatment by default, and this is one potential explanation for the high prevalence of long-term prescribing of psychotropic drugs that we found. Further, when medication is not reviewed, it is not possible to determine if the benefits of treatment outweigh the risks, and patients with EUPD may be unnecessarily exposed to both short- and long-term side effects associated with psychotropic medication. These include the metabolic side effects of antipsychotic drugs in a population known to have higher rates of cardiovascular disease and associated premature mortality than the general population.[28]

Limitations of the Study

Services were asked to select a random sample of people with personality disorder under their care, but we cannot

know if this was done. However, the large size of the total national sample makes systematic selection bias unlikely, and, as such, the sample is likely to be representative of patients with personality disorder under the care of mental health services in the United Kingdom. We did not verify that the patients in our sample met the diagnostic criteria for EUPD or any comorbid diagnoses that they had been given by their treating clinician. Nevertheless, given that the prevalence of comorbid conditions in our sample is similar to other surveys,[13,14] our sample is credibly representative of people with EUPD in the United Kingdom in this respect.

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