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DIAGNOSIS OF MENTAL ILLNESS IN PRIMARY AND SECONDARY CARE WITH A FOCUS ON BIPOLAR DISORDER

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SUMMARY

Introduction: *While most of the management of mental health in the UK is conducted in primary care, the diagnosis by GPs has been shown to deficient in some areas. Bipolar disorder in particular is known to under-diagnosed but there is confusion as to whether this is due to poor recognition or conversion from unipolar depression*

Subjects and methods: *In April and May 2012 an audit was conducted in secondary psychiatric services in Bedford, UK among 146 representative patients and 112 bipolar patients, examining the course of their illness and diagnosis*

Results: *Bipolar disorder is under-diagnosed in the community and in secondary care. First manic or hypomanic symptoms usually follow first depressive symptoms by several years (μ=7.3, σ=7.9). A diagnosis of bipolar also commonly follows manic or hypomanic symptoms by years (μ=7.6, σ=8.3).*

Discussion: *Both psychiatrists and GPs under-diagnose bipolar, but this study shows it may be due to two factors: poor recognition by doctors and conversion from major depressive disorder.*

Conclusion: *GPs and psychiatrists must be more aware of the under-diagnosis of bipolar and its tendency to convert from pure depressive symptoms.*

Key words: *bipolar disorder – diagnosis – hypomania - depression*

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INTRODUCTION

Much work has been devoted to the ways in which primary and secondary care interact in the delivery of psychiatric care (Reilly et al. 2012). However, a large part of this research has been dedicated to the treatment and long-term management of mental disorders, somewhat neglecting the crucial area of diagnosis. It is possible that this is due to the existence of well demarcated diagnostic criteria in the commonly used ICD and DSM, theoretically rendering it facile to decide whether a patient meets the parameters of psychiatric morbidities. Nonetheless, studies have clearly demonstrated that psychiatric diagnosis by general practitioners consistently fails to meet the standards set by specialists in the field. In particular, it has been shown that GPs under-diagnose as compared to the General Health Questionnaire (Boardman 1987); moreover, they also underestimate the severity of mental illness as compared to psychiatrists (Goldberg & Blackwell 1970).

These discrepancies would perhaps lack public health significance were it not for the fact that – due to the enormous disease burden of psychiatric morbidity in the UK – the majority of patients with a mental illness are treated exclusively in primary care (Robertson 1979). Furthermore, while most of these will be relatively minor conditions, this still leaves one third of all patients with a long-term disabling mental health problem solely in the hands of their GP (Kendrick et al. 1994). This is concerning because it raises the possibility that a large proportion of patients with severe mental illnesses remain with an unsuitable diagnosis within primary care. One of the aims of this study, therefore, was to highlight the differences in the diagnoses that patients received in general practice and after specialist review, thereby illustrating some ways in which diagnosis may be failing in primary care.

In particular, we had an interest in the diagnosis of bipolar disorder (BP). Bipolar is widely acknowledged to be under-diagnosed (Angst et al. 2002). Hirschfeld et al. demonstrated that in the US only 19.8% of those with symptoms meeting the criteria for BP according to the Mood Disorder Questionnaire actually had such a diagnosis. 31.2% of this population had been diagnosed with unipolar depression, while 49.0% had never been diagnosed with an affective disorder (Hirschfeld et al. 2003). The significance of these findings are not to be underestimated, with one study considering the Disability-Adjusted Life Years lost due to under-diagnosis of BP to be 2.3 million (Falagas et al. 2007). Bipolar-II in particular is often missed (Falagas et al. 2007), so one school of thought maintains that this under-diagnosis is due to hypomanic symptoms not being detected by doctors. Cassano et al. propose several reasons for this, including the absence of

subjective suffering during hypomania, the increased productivity associated with this state, diurnal and seasonal variation of symptoms and the preponderance to group such long-term problems under the heading of 'personality disorders' (Cassano et al. 1999).

It is, however, also noted that it has been documented for unipolar depression to convert to BP (Akiskal et al. 1995). This could also account for the underdiagnosis of BP, in particular its misdiagnosis as major depressive disorder (MDD). Conversion has been placed at about 1% per year (Angst & Preisig 1995, cited in Angst & Sellaro 2000), making it plausible that many patients who are suffering from BP have a diagnosis of MDD that was accurate in the past but is no longer appropriate. It has also been demonstrated that, while personality may predict conversion to BP-II, conversion to BP-I has no useful correlates (Akiskal et al. 1995), so altering the diagnosis is rendered harder by the lack of possible anticipation of the event. Since, MDD lacks manic or hypomanic episodes, conversion must entail having a first such episode, so our study also undertook to discover the relationship between onset of mania or hypomania and diagnosis as BP.

SUBJECTS AND METHODS

In April and May 2012 an audit was conducted in the Community Mental Health Team of the South Essex Partnership University NHS Foundation Trust (SEPT) examining diagnosis of psychiatric illnesses. Since the introduction of the Assessment and Single Point of Access (ASPA), 234 new patients had been referred. Of these, it was possible to obtain the paper records for 146 patients. These records were then examined for the following data:

- Diagnosis given at time of referral;
- 1st diagnosis given by ASPA;
- Date of 1st diagnosis given by ASPA.

Among these patients, 16 were found to have a confirmed current diagnosis of BP. For these patients, the following data were collected in addition to that detailed above:

- Date of 1st depressive episode (according to the patient retrospectively);
- Date of 1st manic episode (according to the patient retrospectively);
- Date of 1st diagnosis of BP.

In addition to this representative group of patients, our particular interest was in bipolar disorder, so we then used a patient database, which enabled us to find bipolar patients who were first seen at the service prior to ASPA. 196 patients were identified in the database, of which it was possible to identify the paper records for 122. Among this group, 112 patients were actually found to have a confirmed diagnosis of bipolar disorder. For these patients, the records were examined for the following data:

- Diagnosis given at time of referral;
- 1st diagnosis given by the secondary psychiatric services in South Essex Partnership University NHS Foundation Trust (SEPT);
- Date of 1st diagnosis from secondary psychiatric services in SEPT;
- Date of 1st depressive episode (according to the patient retrospectively);
- Date of 1st manic episode (according to the patient retrospectively);
- Date of 1st diagnosis of BP.

These 112 patients with confirmed BP whose first consultations predated ASPA were then added to the 16 patients who had first been seen since ASPA to give 128 patients with current confirmed BP.

RESULTS

All Diagnoses

These results concern the patients who had been seen through the ASPA service, all of whom had their diagnosis recorded. A special category was created for 'Depression and Anxiety' since it occurred so frequently.

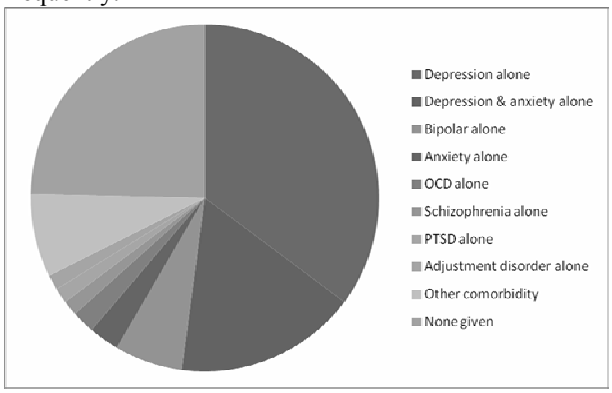

Figure 1. Diagnoses of patients as given in the referral letters, n=142

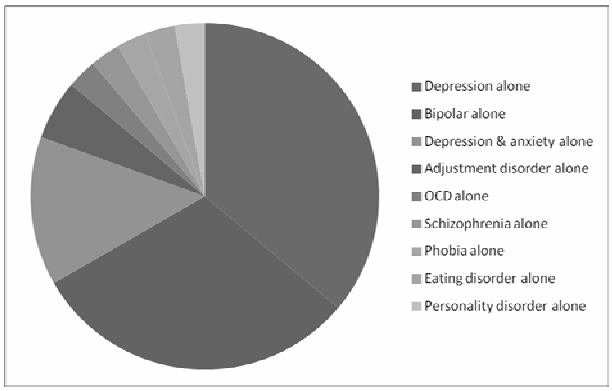

Figure 2. Diagnoses of patients as given by ASPA, n=50

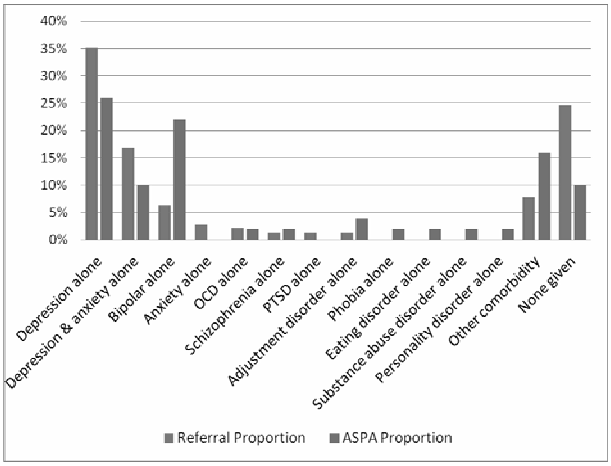

Figure 3. Comparative diagnosis frequencies

In examining these data, four specific hypotheses were tested, as follows:

- Depression is a less frequent diagnosis in ASPA than in referrals. This was not found to be statistically significant.
- Depression and anxiety is a less frequent diagnosis in ASPA than in referrals. This was not found to be statistically significant.
- Bipolar is a more frequent diagnosis in ASPA than in referrals. This was found to be statistically significant ($\chi 2=9.7$, $p<0.05$).
- No diagnosis is a less frequent outcome in ASPA than in referrals. This was found to be statistically significant ($\chi 2=4.8$, $p<0.05$).

When comparing diagnoses for individual patients, it was found that concordance between referral diagnosis and ASPA diagnosis in terms of the categories in Figure 3 was 57% (n=35).

Bipolar Patients

These results concern the patients who currently have a confirmed diagnosis of bipolar.

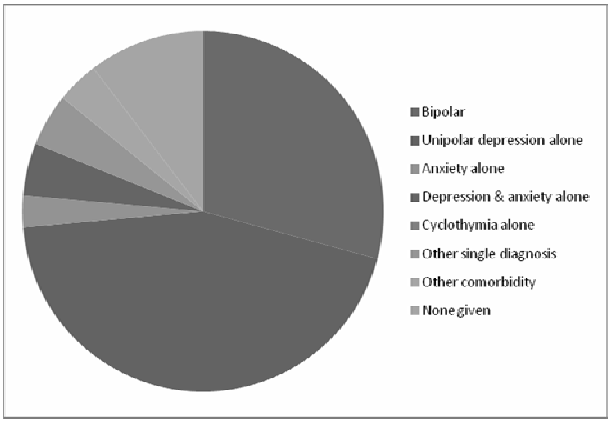

Figure 4. Diagnoses of patients subsequently found to have BP as given in the referral letters, n=106

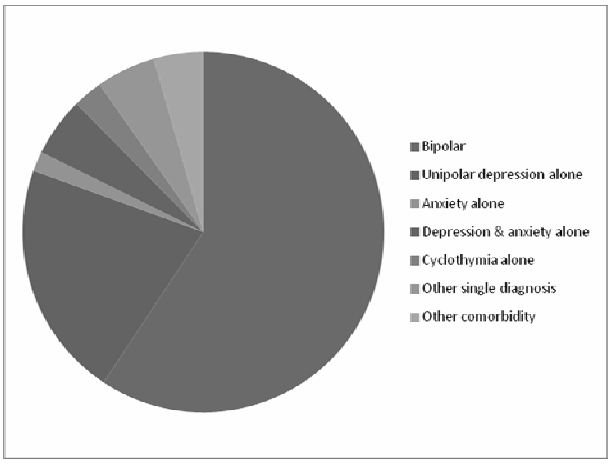

Figure 5. First diagnoses by secondary psychiatric services of patients subsequently found to have BP, n=113

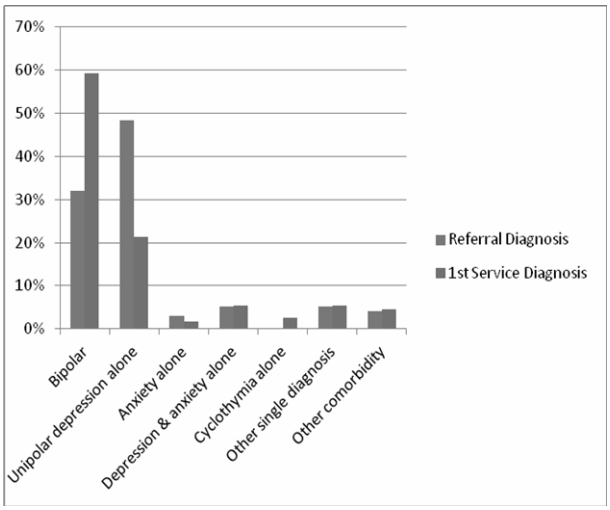

Figure 6. Comparative diagnosis frequencies of patients subsequently found to have BP

Table 1. Time lag between events in the course of BP among patients with a current diagnosis

Measure	Mean	Standard Deviation	n
Time between 1st depressive episode and 1st (hypo)manic episode	7.34	7.92	38
Time between 1st depressive episode and 1st diagnosis of bipolar	16.27	11.17	59
Time between 1st (hypo)manic episode and 1st diagnosis of bipolar	7.55	8.25	39
For patients whose 1st diagnosis was not BP, time between 1st diagnosis and 1st diagnosis of BP	2.62	2.56	42

As before, statistical tests were used to determine significance of certain hypotheses represented in Figure 6:

- BP was a commoner diagnosis in secondary psychiatric services than in referrals. This was found to be statistically significant ($\chi 2=14.7$, $p<0.05$).
- Unipolar depression was a less common diagnosis in secondary psychiatric services than in referrals. This was found to be statisticallysignificant ($\chi 2=18.3$, $p<0.05$).

We also calculated the time lag between various stages in the course of bipolar, as shown in Table 1.

DISCUSSION

All Diagnoses

These results highlight the preponderance in primary care to diagnose patients with depression, either alone or in combination with anxiety; together these entities accounted for more than half of all referrals, which is highly noteworthy since half the remaining patients had no diagnosis. This is likely a reflection of a nationwide trend for GPs to diagnose depression more commonly, as prescriptions of antidepressants in England more than doubled between 1991 and 2000 (Double 2002). The fact that psychiatrists diagnosed BP more than GPs confirms that BP is under-diagnosed in primary care.

Bipolar Patients

The fact that only 28.4% of referred patients already had a diagnosis of BP is concerning, although it should be noted that this study only took into account definitive diagnoses, so some postulated diagnoses were excluded. However, the fact that only 59.3% of patients received a diagnosis of bipolar after seeing a psychiatrist demonstrates that the difficulty with making this diagnosis is not confined to primary care, although specialists appear to do it more effectively.

Our final sets of results illuminate the reasons behind what may be causing these delays in diagnosis. The first point to make is that there is a considerable gap between the onset of manic or hypomanic symptoms and a diagnosis of BP being given. This confirms that there is a considerable duration of untreated illness among patients with this disorder; patients who meet the criteria for BP have a duration of untreated illness of more than 7 years, which is considerably more than should be optimal for their management. However, the gap of a similar length of time between the first depressive episode and first manic episode demonstrates another explanation of why patients with BP may be seen by primary and secondary care for many years under another diagnosis, commonly of major depressive disorder: depressive episodes almost always predate hypomanic or manic episodes, often by several years.

CONCLUSION

While other studies have demonstrated GPs' increasing awareness of depression, this paper demonstrates the need for a growing appreciation of other diagnostic entities within psychiatry. In particular, bipolar is frequently missed, partly due to the fact that it usually evolves from a period of depression without hypomania or mania. Hitherto the debate as to whether bipolar is under-diagnosed or merely converts from unipolar depression has been polarised, but this paper demonstrates that both phenomena take place and are important issues of which to be aware, whether in primary or secondary care.

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Conflict of interest: None to declare.

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