Title: Using electronic medical records (EMRs) to determine prevalence and treatment of mental disorders in primary care: A pilot database study

Abstract

Objectives: With prevention and treatment of mental disorders a challenge for primary care and increasing capability of electronic medical records (EMRs) to facilitate research in practice, we aim to determine the prevalence and treatment of mental disorders by using routinely collected clinical data contained in EMRs.

Methods: We reviewed EMRs of patients randomly sampled from seven general practices, by piloting a study instrument and extracting data on mental disorders and their treatment.

Results: Data were collected on 690 patients (age range 18-95, 52% male, 52% GMS-eligible). A mental disorder (most commonly anxiety / stress, depression and problem alcohol use) was recorded in the clinical records of 139 (20%) during the two year study period. While most patients with the common disorders had been prescribed medication (i.e. antidepressants or benzodiazepines), a minority had been referred to other agencies or received psychological interventions. ‘Free text’ consultation notes and ‘prescriptions’ were how most patients with disorders were identified. Diagnostic coding alone would have failed to identify 92% of patients with a disorder.

Conclusions: Although mental disorders are common in general practice, this study suggests their formal diagnosis, disease coding and access to psychological treatments are priorities for future research efforts.
Introduction

Mental disorders are a leading cause of morbidity and their prevention/treatment is a priority for population health and primary care (Leahy et al., 2013). Globally, they account for five of ten leading causes of disability and are associated with adverse health, social and economic outcomes (Murray and Lopez, 1996). Furthermore, this burden is growing due to their high prevalence (Serrano-Blanco et al., 2010, Toft et al., 2005), delayed diagnosis/treatment (Roca et al., 2009) and the high prevalence of associated chronic illness (Gunn et al., 2012).

With most mental disorders managed in this setting, primary care is well placed to address these issues. While approximately 50% of mental disorders are recognised in primary care, rates vary considerably. A meta-analysis of detection of depressive illness in primary care found that GPs correctly identified depression in 45% of cases, with detection rates ranging from 6 to 78% across studies and under-detection linked to suboptimal treatment and outcomes (Mitchell et al., 2009).

In Ireland, mental disorders are a major challenge for primary care (Connolly et al., 2012, Healy et al., 2013, Power et al., 2013). Community-based studies consistently estimate that mental health problems occur in 21-27% of young adults (Cleary et al., 2007, Lawlor and James, 2000, Sullivan et al., 2004), 12% of adults aged 18 and over are at risk of psychological distress (Tedstone-Doherty et al., 2007) and approximately 25-33% of people attending primary care have mental health problems. (Copty and Whitford, 2005, Hughes and Byrne, 2010) Ireland’s mental health service reforms and especially their intent to deliver “more care in the community” (2006b) provide an ideal opportunity to develop services that are more accessible and responsive to the mental health needs of the population, with accurate information on prevalence, and care processes/outcomes a key enabler for reform (2012c).

Internationally, mental health services researchers have looked to electronic medical records (EMRs) to answer questions regarding diagnostic and prescribing patterns (Kramer et al., 2003, Seyfried et al., 2009) although the importance of first determining the accuracy of such data when using them for research purposes has been highlighted (Trinh et al., 2011). In Ireland, primary care based health information systems have historically been poorly developed. Although clinical records have been computerised for some time (Meade et al., 2009), there is variable standardisation of data collected via diagnostic coding and the infrastructure required for collecting this data remains fragmented (Collins and Janssens, 2012). With a recognition among regulatory authorities that effective health
EmrS and mental disorders

The overarching aims of this study were to examine identification, prevalence and management of mental disorders from EMRs. Specific objectives were

- To determine the prevalence of documented mental disorders among patients attending general practice and their management in practice
- To examine how mental disorders are documented in clinical records
- To develop and pilot a study instrument that enables research on mental disorders in general practice.

Method

Overview

A retrospective cross sectional study of patients attending seven university medical school affiliated general practices involving clinical records review and extraction of practice level consultation data.

Setting

All GPs who were affiliated with the medical school at the time of the study (n=84) were invited to participate in the study. Practices were eligible to participate if:

- GP principal volunteered to participate in the study;
- The practice had been using the same practice EMR system consistently for at least the previous six months.

Seven practices indicated their interest in participating and met the eligibility criteria. These participating practices were reflective of those invited and of all GPs in Ireland in terms of practice...
size, other practice staff, rurality and choice of GP software system (see Table 1) (O'Dowd et al., 2005). Participating practices differed to those invited and GPs nationally in that they were more likely to have a special interest in mental health, to have a patient profile that was mostly GMS-eligible and to use electronic clinical records. We decided to base this study at small number of practices because of their interest in the topic and our experience would indicate it is better to base exploratory work at practices that are conducive to research and that can thus inform methodology (Cullen et al., 2009, Smith et al., 2008).

<Table 1>

Study population

We searched each practice's EMR system (database) to identify 'active' patients aged 18 years or over and randomly sampled 100 patients from the list using data analysis tools in Microsoft Excel. The EMR of each individual identified by this search was reviewed to exclude those who had not attended the practice in the preceding 24 months.

Data collection

Clinical records were retrospectively reviewed for a two-year time period from the date of data collection. The study instrument was based on one previously used in morbidity surveys in primary care in Ireland (reference omitted to allow anonymised review) and mental disorders among young adults (Connolly et al., 2012) and included:

- Documented mental disorders prevalence and treatment (i.e. referrals, psychological interventions and prescribing) in respect of:
  - Depression, including major depression, low mood, post-natal depression, seasonal affective disorder
  - Psychosis, including psychosis, mania, bipolar disorder, schizophrenia, schizoaffective disorder
  - Problem alcohol use, including harmful or dependant drinking
  - Problem substance use, including drug addiction and use of illicit substances
  - Stress/Anxiety, including anxiety attacks, generalised anxiety disorder, post-traumatic stress disorder, stress, acute stress reaction, social phobia, obsessive compulsive disorder, panic attacks
  - Dementia and related problems, including agitation, behavioural difficulty
A two-stage approach to data collection was adopted. In the first instance, senior medical students on clinical placement at three participating practices collected data in collaboration with the GP principal, supervised by two experienced researchers. To ensure consistency in data collection, issues and problems were reviewed at regular meetings of the research team during this stage and resulted in further development of the study instrument (see Appendix I - online documentation). Subsequently, one senior medical student collected data from a further four practices, again in collaboration with the respective GP principal and supervised by two experienced researchers.

Anonymised data were entered to an Excel database by the research team and imported to PASW 18 for statistical analyses. Descriptive analytics were carried out on the key study measures, specifically: psychological morbidity, its treatment, referral to secondary care and other agencies, health service utilisation and how mental and substance use diagnoses were recorded in clinical records. Further statistical analyses included Pearson's chi-squared test to determine the significance of associations between categorical variables and Student's t-test to compare means of continuous variables.

Ethical considerations

All data were anonymous, with identifying patient details removed at time of data collection. Data were collected from clinical records by a member of the research team and entered to an electronic database and stored on a password protected computer at the host institution. The researcher involved in data collection was nominated as an agent of each practice and GPs were involved in data collection to ensure that any issues requiring clinical follow up were reviewed by the GP with clinical responsibility for the patient's ongoing care and to minimise potential bias resulting from coding and interpretation of clinical problems. The study was reviewed and approved by the Irish College of General Practitioners Research Ethics Committee (9th August 2012).
Results

Population characteristics and prevalence of mental disorders

Data were collected on 690 patients attending general practice (mean age 47 years, range 18-95), of whom 355(52%) were male, 357(52%) were GMS-eligible (Ireland's means-tested free general practice system) and 443(64%) had been referred to or attended secondary care in the past year.

A total of 139 people had a documented mental disorder in the previous two years (20% prevalence, 95% confidence interval 17-23%), with 37(27%) of the 139 patients having two or more disorders, and 88(63%) consulting more than once with a mental disorder. The most common disorder identified was stress / anxiety (73 cases), followed by depression (65 cases), problem alcohol use (17 cases), problem drug use (15 cases), psychosis (nine cases) and dementia / related problems (four cases).

Treatment of mental disorders

There existed considerable variation in approaches to management for each of the six common disorders. Except in the case of psychosis, psychological interventions were accessed by a minority of patients, e.g. 26/73 patients with anxiety, 26/65 patients with depression and 4/17 with problem alcohol use received a psychological intervention (see Figure 1). In addition, referral rates to other services were low, e.g. 25/73 patients with anxiety / stress, 30/65 with depression and 4/17 with problem alcohol use were referred to another agency.

There also existed considerable variation in prescribing practices between disorders (see Table 2), Antidepressants and benzodiazepine were the two categories of drug most commonly prescribed and for stress / anxiety, depression and problem alcohol use, more patients had been prescribed a medication than had received a psychological intervention.

<Figure 1>

<Table 2>
Health service utilisation and psychological morbidity

Patients with a mental disorder consulted significantly more frequently in the previous year (mean 7.3 compared to 3.9 consultations, t-statistic 5.8, p<0.001). While they also had significantly more GP consultations (mean 6.7 compared to 2.9, t-statistic 7.7, p<0.001), there was no significant difference in practice nurse consultation rates (mean 1.2 compared to 0.9, t-statistic 1.0, p=0.30). Patients with a disorder were significantly more likely to be GMS-eligible and to have been referred to or attended secondary care in the past year (see Table 4).

Diagnosis, coding and feasibility

Of the diagnoses (n=119) examined to determine how mental disorders were documented, 69(58%) were identified from free text consultation notes in the electronic clinical records, 31(26%) were identified from prescribing records, 9(8%) were identified from a diagnostic code, 5(4%) were identified from a referral letter, 3(3%) were identified from a hospital discharge letter and two were identified through other means (see Figure 2).

Discussion

Key findings

This first study to examine mental disorders and their management in routine general practice in Ireland highlights that documented mental disorders (especially stress/anxiety, depression and problem alcohol use) are common (20% prevalence) and associated with increased GP consultations, referrals to and attendance at secondary care. While the proportion referred to other agencies or who received psychological interventions for mental disorders was low, antidepressants and benzodiazepines were commonly prescribed. The research also highlights the limitations of EMRs
EMRs and mental disorders

(evenly diagnostic coding) in identifying patients with psychological morbidity; reliance on diagnostic coding alone would have failed to identify 92% of cases.

How this relates to other research

That 20% of patients had a documented mental disorder is consistent with other work involving administrative data, which estimated 19% of patients attending GPs in Canada did so for the care of mental health issues (Palin et al., 2012). However, our estimate is considerably lower than that reported in studies which involved standardised screening measures. A review of such studies estimated 29% of patients attending general practice had a mental disorder (King et al., 2008). Depression and stress/anxiety were the most commonly identified issues in this study and these findings were consistent with work in other settings (Ansseau et al., 2004, Broers et al., 2006, Linzer et al., 1996).

That only 3% were identified to have problem alcohol use is a concern. Primary care is the first point of contact for patients with problem alcohol use and clinical encounters should involve routine discussion of alcohol use (Kaner et al., 2009). Problem alcohol use is also common among patients attending general practice. A recently published pragmatic trial of screening for problem alcohol use in primary care reported that 900/2991 (30%) screened positive for hazardous or harmful drinking, ten times higher than we observed (Kaner et al., 2013).

The increased health service utilisation we observed among patients with a disorder is also consistent with other research which may reflect an increased tendency towards undiagnosed coexisting somatoform disorders and chronic medical illnesses among patients with mental disorders (Bener et al., 2013, Gunn et al., 2012).

Especially for the more common problems, our findings suggest sub-optimal access to psychological interventions and over-reliance on pharmacotherapy, especially antidepressants and benzodiazepines; treatment approaches at odds with current treatment guidelines (see Appendix 1) (2006a, 2007, 2009a, 2009b, 2011a, 2011b, 2012a). These findings concur with Rogers et al whose review of referrals from primary care highlights “a gap between best evidence and real world practice in the care of patients with depression [and suggests that] access to psychological services should be improved and made available in primary care networks” (Rogers et al., 2013).
Methodological considerations

Validity of the data reported in this paper is enhanced by the practices in which it was conducted (a special interest in the topic and with advanced practice information systems) and the method of data collection (data collected by a senior medical student working with the GP principal and a study instrument developed to minimise variation between researchers which has been used previously in studies of psychological morbidity in Irish general practice). However, these practice features mean they are unlikely to be representative; thus the possibility of ascertainment bias can not be discounted. The study’s retrospective nature, dependency upon prior documentation of issues within consultation notes and our interpretation of these records is likely to have underestimated true period prevalence.

While our findings highlight the value of EMRs for research purposes, some important limitations should be noted. In particular, reliance on diagnostic coding alone would have failed to identify 92% of patients with a disorder. The reasons why GPs do not code are complex and include inherent limitations of coding systems, the time / distraction involved in recording structured data in the consultation and the priority given to coding by a practice or health system (de Lusignan, 2005). Meanwhile, financial incentives and clinical audit as part of target-setting and quality / competence assurance may drive its adoption in practice (Collins, 2012, de Jong et al., 2013, de Lusignan, 2005). De Lusignan et al highlight the importance of contextual issues such as these in interpreting the validity of findings based on routinely collected clinical data (de Lusignan et al., 2006).

This is especially important in the case of mental disorders. In this study, EMRs did not use standardised diagnostic screening tools. Thus, it is difficult to say with certainty whether all of the recorded diagnoses would meet the respective ICD-10 or DSM-5 criteria. Many diagnoses were documented as part of a consultation that involved a number of issues which inevitably makes the use of formal approaches to screening difficult, thereby impacting on identification. Making a psychological diagnosis in general practice tends to be a longitudinal process following a number of visits; while GPs recognise the possibility of psychiatric diagnosis early on, they are ‘cautious about applying a definitive diagnosis’, wishing first to rule out any physical co-morbidities (Lampe et al., 2012). Similarly, a systematic review into the diagnostic process regarding depression in general practice found that diagnostic strategies tended to rely on knowledge of patient history, the doctor-
patient relationship and eliminating the possibility of physical disease rather than rigidly sticking to psychiatric diagnostic criteria (Schumann et al., 2012).

**Implications for clinical practice, research and education**

This study highlights a need for further research on the epidemiology and management of mental disorders in general practice and the “gap between best evidence and real world practice” especially access to psychological interventions (Rogers et al., 2013). Larger studies involving a more representative sample of practices would make for more generalisable findings, while longitudinal research would both determine the natural history of these common problems in practice and determine the effectiveness of Ireland’s mental health service reforms and especially their intent to deliver “more care in the community” (2006b, 2008, 2011c, 2012b). This study highlights the potential importance of more formal approaches to diagnosis and disease coding within EMRs. Developing and evaluating interventions that systematically enable both, yet which do not impact on the interaction between doctor and patient which is key to the psychological narrative (Lampe et al., 2012, Schumann et al., 2012), is a priority.

**Acknowledgements**

We thank the GPs and practice staff for their assistance with this study and our University’s ‘Research Incentives Programme’ and Medical School who funded this study.
References


Appendix 2. Summary of NICE / Royal College of Psychiatrists clinical guidelines in respect of common mental disorders.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Guideline recommends:</th>
</tr>
</thead>
</table>
| Depression (2009a) | Low intensity intervention: assess sleep; active monitoring; self-help education; cognitive behavioural therapy; group activity  
                      Pharmacological treatment: SSRI, then SNRI if unsuccessful or TCA if SSRI/SNRI contra-indicated  
                      High intensity intervention: cognitive behavioural therapy; interpersonal therapy; behavioural activation; counselling; psychodynamic therapy |
| Alcohol Misuse (2011a) | Motivational interview and brief intervention.                                                              |
| Substance Abuse (2007) | Offer psychological interventions — single and group; cognitive behavioural therapy; behavioural therapy.  
                           Pharmacological treatment - to maintain abstinence: acamprosate, naltrexone, disulfuram² |
| Psychosis (2009b)  | Psychosocial interventions: motivational interviewing; education around self-help groups e.g. narcotics anonymous; contingency management; couples behavioural therapy.  
                      Pharmacological treatment: specific to drug of abuse, manage withdrawal³ |
| Mania (2006a)      | Psychological intervention: education and advice on lifestyle and relapse prevention  
                      Pharmacological intervention: short-term use of benzodiazepine in acute setting; oral anti-psychotic – specific anti-psychotic chosen based on previous therapy, patient preference; clozapine only after unsuccessful trial of two oral anti-psychotics, one to be second-generation |
| Anxiety Disorder (2011b) | Psychological interventions: education and monitoring; lone, guided or group self-help; cognitive behavioural therapy; applied relaxation |
| BPSD* (2012a)      | Consider: aromatherapy; multisensory stimulation; massage; animal-assisted therapy; dance/music therapy  
                      Pharmacological interventions: (with caution) benzodiazepines; anti-psychotics; acetylcholinesterase inhibitor; memantine, anti-depressants⁵⁹ |

*Behavioural and Psychological Symptoms of Dementia
Figures and Tables used in text.

Figure 1. Treatment of mental and substances use disorders.

Figure 2: How were mental and substances use disorders identified in clinical records?
Table 1. Characteristics of participating practices and comparison with all practices affiliated with medical school and national sample

<table>
<thead>
<tr>
<th>Practice characteristic</th>
<th>Participating practices</th>
<th>All practices affiliated with medical school</th>
<th>National survey of GPs (27)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of doctors in practice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two or less</td>
<td>4/7 (57%)</td>
<td>43/78 (55.2%)</td>
<td>58%</td>
</tr>
<tr>
<td>Three or more</td>
<td>3/7 (43%)</td>
<td>35/78 (45%)</td>
<td>42%</td>
</tr>
<tr>
<td><strong>Other staff in practice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice nurse</td>
<td>7/7 (100%)</td>
<td>74/79 (94.6%)</td>
<td>76%</td>
</tr>
<tr>
<td>Administrator(s) / clerical</td>
<td>7/7 (100%)</td>
<td>77/77 (100%)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Practice type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly GMS</td>
<td>3/7 (43%)</td>
<td>22/77 (28.6%)</td>
<td>96%</td>
</tr>
<tr>
<td>Mixed</td>
<td>4/7 (57%)</td>
<td>54/77 (70.1%)</td>
<td></td>
</tr>
<tr>
<td>Mostly private</td>
<td>0</td>
<td>1/77 (1.3%)</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Practice area</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly urban</td>
<td>2/7 (29%)</td>
<td>15/76 (19.7%)</td>
<td>43%</td>
</tr>
<tr>
<td>Mostly rural</td>
<td>2/7 (29%)</td>
<td>20/76 (26.3%)</td>
<td>21%</td>
</tr>
<tr>
<td>Mixed</td>
<td>3/7 (43%)</td>
<td>41/76 (53.9%)</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Clinical records</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard copy</td>
<td>0/7</td>
<td>5/78 (6.4%)</td>
<td></td>
</tr>
<tr>
<td>Electronic</td>
<td>7/7 (100%)</td>
<td>62/78 (79.5%)</td>
<td>89%¹</td>
</tr>
<tr>
<td>Both</td>
<td>0/7</td>
<td>11/78 (14.1%)</td>
<td></td>
</tr>
<tr>
<td><strong>Practice management system</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Socrates’™</td>
<td>2/7 (29%)</td>
<td>27/73 (37%)</td>
<td>N/A</td>
</tr>
<tr>
<td>‘HealthOne’™</td>
<td>2/7 (29%)</td>
<td>33/73 (45.2%)</td>
<td>N/A</td>
</tr>
<tr>
<td>Other</td>
<td>3/7 (43%)</td>
<td>7/73 (9.6%)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Areas of special clinical interest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td>7/7 (100%)</td>
<td>45/78 (42.9%)</td>
<td>N/A</td>
</tr>
<tr>
<td>Youth and adolescent health</td>
<td>7/7 (100%)</td>
<td>46/78 (43.8%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

¹ 89% 'used computers in their practice'
Table 2. Pharmacological treatment of mental disorders.

<table>
<thead>
<tr>
<th></th>
<th>Anxiety/ Stress (n=73)</th>
<th>Depression (n=65)</th>
<th>Problem alcohol use (n=17)</th>
<th>Problem substance use (n=15)</th>
<th>Psychosis (n=9)</th>
<th>Dementia (n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received pharmacological Treatment</td>
<td>58 (79%)</td>
<td>54 (83%)</td>
<td>14 (82%)</td>
<td>12 (80%)</td>
<td>9 (100%)</td>
<td>4 (100%)</td>
</tr>
<tr>
<td>Anti-depressants</td>
<td>36</td>
<td>48</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Benzo diazepines</td>
<td>28</td>
<td>23</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Z drugs</td>
<td>14</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Opiates</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Anti-psychotics</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Anti-convulsant</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Alzheimer drug</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3. Key population, general practice / health service utilisation and morbidity data and their association with a documented psychological issue.

<table>
<thead>
<tr>
<th>Variable</th>
<th>'Psychological problem' documented (n=139)</th>
<th>'Psychological problem' not documented (n=551)</th>
<th>Chi-squared test statistic (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMS status</td>
<td></td>
<td></td>
<td>26.46(0.001)</td>
</tr>
<tr>
<td>GMS eligible</td>
<td>99 (71%)</td>
<td>258 (47%)</td>
<td></td>
</tr>
<tr>
<td>Non-GMS eligible</td>
<td>40 (29%)</td>
<td>293 (53%)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>1.53(0.22)</td>
</tr>
<tr>
<td>Male</td>
<td>65 (47%)</td>
<td>290 (53%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>74 (53%)</td>
<td>261 (47%)</td>
<td></td>
</tr>
<tr>
<td>Has been referred to or attended secondary care in the past year</td>
<td>113 (81%)</td>
<td>330 (60%)</td>
<td>22.13(0.001)</td>
</tr>
</tbody>
</table>
Appendix 1. Study instrument used in data collection (for online publication only)

1. Demography
   1.1. Gender
   1.2. Age last birthday
   1.3. Health cover

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-GMS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Psychological Morbidity
   2.1. Has a psychological problem been documented in the last two years? Yes / No
   2.2. On how many occasions?
   2.3. Which psychological problems have been documented in this time?

<table>
<thead>
<tr>
<th>Documented problem</th>
<th>Referred to / attended other agency for this problem</th>
<th>Referred to / attended specialist mental health services for this problem</th>
<th>Has received a psychological intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4. What pharmacological treatments have been prescribed in the last two years?

<table>
<thead>
<tr>
<th>Medication (class)</th>
<th>Current prescription</th>
<th>Acute prescription in the last two years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzodiazepine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opiate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antidepressant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antipsychotic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Primary / Secondary Care service utilisation

   3.1. Number of consultations (including antenatal) with the practice (past year):
   3.2. Has been referred to or attended secondary care (including emergency departments) in the last 2 years? Yes / No
   3.3. How was diagnosis identified?

   Free text in consultation note / diagnostic code in active problem / diagnostic code in past history / referral letter / other (specify)