

examine collaborations between authors in different world regions (Maj, 2005) or the actual subject pools used in studies (Patel & Kim, 2007). Acceptance rates for submissions from underrepresented regions to the journals could also be compared with acceptance rates for submissions from overrepresented regions (Patel & Kim, 2007). We also realise that psychiatric researchers from underrepresented world regions could be improving their publication rates in psychiatric journals with lower impact factors, and this is another possibility to explore in future research.

Despite previous recommendations to improve global representation in psychiatric research, much of the world's population still appears to be underrepresented in highly influential psychiatric journals. More effective actions need to be taken to achieve truly globally representative psychiatric research (Maj, 2005).

References

- Balon, R., Roberts, L. W., Coverdale, J., et al (2008) Globalization of medical and psychiatric education and the focus of *Academic Psychiatry* on the success of 'international' authors. *Academic Psychiatry*, 32, 151–153.
- Coverdale, J., Roberts, L. W., Louie, A. K., et al (2007) Enhancing the international status of *Academic Psychiatry*. *Academic Psychiatry*, 31, 177–179.
- Maj, M. (2005) Psychiatric research in low- and middle-income countries: the need for concrete action. *Acta Psychiatrica Scandinavica*, 111, 329–330.
- Mari, J. J., Patel, V., Kieling, C., et al (2010) The 5/95 gap in the indexation of psychiatric journals of low- and middle-income countries. *Acta Psychiatrica Scandinavica*, 121, 152–156.
- Patel, V. & Kim, Y.-R. (2007) Contribution of low- and middle-income countries to research published in leading general psychiatry journals, 2002–2004. *British Journal of Psychiatry*, 190, 77–78.
- Patel, V. & Sumathipala, A. (2001) International representation in psychiatric literature: survey of six leading journals. *British Journal of Psychiatry*, 178, 406–409.



The diagnostic validity of depression scales and clinical judgement in the Kurdistan region of Iraq

Zerak Al-salihy¹ MBChB MRCPsych, Twana A. Rahim² MBChB FIBMSPsych, Mahmud Q. Mahmud,³ Asma S. Muhyaldin⁴ and Alex J. Mitchell⁵ MBBS MRCPsych

¹Specialty Registrar Level 5 (ST5) in Old Age Psychiatry, Norfolk and Suffolk Foundation Trust (NSFT), Bury St Edmunds, Suffolk, UK, email zeraksalihy@yahoo.com

²Senior Lecturer in Psychiatry and Behavioural Sciences, Faculty of Medicine, Hawler Medical University, Erbil, Iraq

³General Psychiatrist, Azadi Medical Centre, Erbil, Iraq

⁴Psychiatry Registrar, Tairawa Health Centre, Erbil, Iraq

⁵Consultant and Honorary Senior Lecturer, University of Leicester, UK

We aimed to find the depression rating scale with the greatest accuracy when applied by psychiatrists in Iraqi Kurdistan. We recruited 200 patients with primary depression and 200 controls living in the Kurdistan region of Iraq. The Mini International Neuropsychiatry Inventory (MINI) was used as a gold standard for DSM-IV depression. We also used: the two-item and the nine-item versions of the Patient Health Questionnaire (PHQ2, PHQ9), the Hospital Anxiety and Depression Scale (HADS), the Calgary Depression Scale for Schizophrenia (CDSS) and the Centre for Epidemiological Studies Depression (CES-D) scale. Interviews were performed by psychiatrists who also rated their clinical judgement using the Clinical Global Impression (CGI) scale and other mental health practitioners. All scales and tools performed with high accuracy and reliability. The least accurate tool was the PHQ2; however, with only two items it was efficient. Sensitivity and specificity for all tools were above 90%. Clinicians using the CGI were accurate in their clinical judgement. The CDSS appeared to be the most accurate scale for DSM-IV major depression and the PHQ2 the most efficient. However, only the CDSS appeared to offer an advantage over psychiatrists' judgement.

Üstün *et al* (2004) estimated that depression is the fourth leading cause of global disease burden. The burden of depression on the healthcare system is equally significant, with an estimated US national annual medical cost of approximately \$26 billion in 1990 (Broadhead *et al*, 1990; Greenberg *et al*, 1993). The National Comorbidity Survey Replication (NCS-R), conducted with people aged at least 18 years, found a 12-month prevalence of 9.5% for any DSM-IV mood disorder, with 6.7% for major depression and 1.5% for dysthymia (Kessler *et al*, 2005). A mental health survey in Iraq which was conducted in collaboration with World Health Organization in 2007 showed that 'anxiety' was the most common class of disorders (13.8%) and major depressive disorder (MDD) the most common disorder (7.2%) (Alhasnawi *et al*, 2009; World Health Organization, 2009).

The extensive literature on screening and case-finding for depression has been reviewed elsewhere. Screening for depression has been supported by recommendations from the US Preventive Services Task Force (Agency for Healthcare Research and Quality, 2002), the UK National Institute for Health and Clinical Excellence (2004) (NICE) and the Canadian Task Force on Preventive Health Care (MacMillan *et al*, 2005). Our aim was to find the tool with the highest accuracy relative to a robust gold standard.

Methods

We recruited 200 patients with primary depression and 200 people without depression living in the Kurdistan region of Iraq. The Mini International Neuropsychiatry Inventory (MINI) was used as a gold standard to define DSM-IV major depression. Ethical approval was granted by the relevant ethical committee for research in Erbil.

Recruitment was undertaken by trained psychiatrists and mental health practitioners working in both out-patient clinics and in the only psychiatric unit of the largest teaching hospital, as well as two health centres which provide out-patient psychiatric services in Erbil. Three trained mental health practitioners administered all the scales after three trained psychiatrists used the Clinical Global Impression (CGI) scale (severity of illness subscale) to evaluate their own clinical judgement based on a full standard psychiatric assessment. The psychiatrists then administered the MINI.

The controls were recruited via random sampling by dividing the city of Erbil into ten regions. The data were collected between April 2009 and March 2010.

A power calculation suggested that, in order to have an 80% chance to detect a 10% difference in sensitivity or specificity, 197.5 patients would be required in each sample. All those who consented were successfully followed up. We excluded patients who were severely unwell. We did not recruit those unable or unwilling to consent. We also excluded those with current substance misuse.

Tools

We used the following scales: the two-item and nine-item versions of the Patient Health Questionnaire (PHQ2, PHQ9), the Hospital Anxiety and Depression Scale (HADS), the Calgary Depression Scale for Schizophrenia (CDSS) and the Centre for Epidemiological Studies Depression (CES-D) scale. We also used the CGI in order to quantify clinical opinion. Scales were administered after the CGI and MINI. We collected reliability data for this approach using Cronbach alpha scores. The CDSS was developed at the University of Calgary and its use has been evaluated for both relapsed and remitted patients with schizophrenia (Addington *et al*, 1992).

Analysis

We used an ROC analysis for each scale against an interview standard diagnosis of depression based on the MINI. In addition we calculated the optimal sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV).

Results

All scales and tools performed with high accuracy compared with the MINI for DSM-IV major depression. The least accurate tool was the PHQ2, but with only two items it was nevertheless very efficient. Sensitivity and specificity for all tools was above 90%. Judging by the area under the curve (Fig. 1), the most accurate scale was the CDSS. All

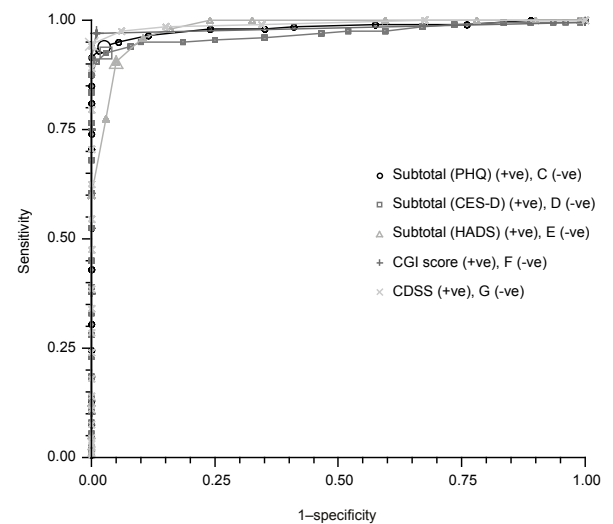


Fig 1
ROC plot

patients who scored positive with the CDSS were correctly classified as having depression.

Clinicians used the CGI to rate their opinion, blind to the results of the scales. Using the CGI their sensitivity was 97.0% and specificity 99.0%. Only in the case of the CDSS was accuracy better with than without the scale, and then only moderately so and short of statistical significance.

Discussion

We found that all five scales performed well in the hands of trained mental health practitioners. However, we also found that psychiatrists without assistance were accurate when evaluated against the MINI. This study may suggest that diagnostic tools are of limited value in specialist settings, when compared with clinical routine judgement.

Only a handful of studies have previously examined the accuracy of psychiatrists' clinical judgement. Taiminen *et al* (2001) compared routine discharge diagnoses based on DSM-IV and best-estimate diagnoses and results from the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) in 116 first-admission patients with psychosis and severe affective disorder. Diagnostic agreement was moderate (κ 0.51), suggesting frequent errors in routine diagnosis, even when using DSM-IV criteria.

Our results show a high accuracy for psychiatrists in Iraq and also high accuracy of all tested tools. The CDSS appeared to be the optimal scale.

We wish to acknowledge several limitations to this study. First, the CGI and MINI were administered by the same researchers. Also, there was no formal matching of cases and controls. Although we intended to administer all the questions by self-report alone, in practice issues with literacy meant we administered them to some of the patients verbally, with the assistance of a trained interviewer.

In conclusion, we found that the CDSS was the optimal method to diagnose depression; however, we also found the psychiatrists' opinion alone was very accurate and therefore it is unclear from our sample whether questionnaires would appreciably help clinicians in their diagnoses.

References

Addington, D., Addington, J., Maticka-Tyndale, E., *et al* (1992) Reliability and validity of a depression rating scale for schizophrenics. *Schizophrenia Research*, 6, 201–208.

Agency for Healthcare Research and Quality (2002) *Screening for Depression: Systematic Evidence Review Number 6*. Agency for Healthcare Research and Quality.

Alhasnawi, S., Sadik, S., Rasheed, M., *et al* (2009) The prevalence and correlates of DSM-IV disorders in the Iraq Mental Health Survey (IMHS). *World Psychiatry*, 8, 97–109.

Broadhead, W. E., Blazer, D. G., George, L. K., *et al* (1990) Depression, disability days, and days lost from work in a prospective epidemiologic survey. *JAMA*, 264, 2524–2528.

Greenberg, P., Stiglin, L., Finkelstein, S., *et al* (1993) Depression: a neglected major illness. *Journal of Clinical Psychiatry*, 54, 419–424.

Kessler, R. C., Chiu, W. T., Demler, O., *et al* (2005) Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 617–627.

MacMillan, H. L., Patterson, C. J. S. & Wathen, C. N. (2005) Screening for depression in primary care: recommendation statement from the Canadian Task Force on Preventive Health Care. *Canadian Medical Association Journal*, 172, 33–35.

National Institute for Health and Clinical Excellence (2004) *Depression: Management of Depression in Primary and Secondary Care*. NICE.

Taiminen, T., Ranta, K., Karlsson, H., *et al* (2001) Comparison of clinical and best-estimate research DSM-IV diagnoses in a Finnish sample of first-admission psychosis and severe affective disorder. *Nordic Journal of Psychiatry*, 55, 107–111.

Üstün, T. B., Ayuso-Mateos, J. L., Chatterji, S., *et al* (2004) Global burden of depressive disorders in the year 2000. *British Journal of Psychiatry*, 184, 386–392.

World Health Organization (2009) *Iraq Mental Health Survey 2006/7 Report*. WHO Regional Office for the Eastern Mediterranean.



Judicial involuntary admission under the Mental Health Act in Goa, India: profile, outcome and implications

Anil Rane,¹ Abhijit Nadkarni,² Shilpa Waikar³ and H. A. Borker³

¹Institute of Psychiatry and Human Behavior, Goa, India, email dranilrane@gmail.com

²London School of Hygiene and Tropical Medicine, London, UK

³Institute of Psychiatry and Human Behavior, Goa, India

We wish to thank Dr Ravindra Agrawal DPM MRCPsych for his contribution in the planning of this paper.

Reception order (RO) by a magistrate is a mode of involuntary admission provided under the Indian Mental Health Act of 1987. To the best of our knowledge there has been no evaluation of this provision in clinical practice. The present paper is a descriptive study through retrospective case-note review of patients admitted by way of RO to a tertiary care hospital in Goa. Compared with those admitted voluntarily, those admitted by RO tended to be single, middle aged (40–60 years old) and non-Goan; on average they had a significantly longer hospital stay than voluntarily admitted patients. Non-affective psychosis and substance use disorders were the more common diagnoses. While admissions by RO serve a useful role in bringing patients who are not under proper care into the mental healthcare system, they do not address the issue of aftercare.

At times, people who are mentally unwell need to be admitted to a psychiatric hospital against their will for reasons of their own safety and/or that of others. In India, all admissions, both voluntary and involuntary, come under purview of the Indian Mental Health Act of 1987 (MHA). Under the Act there are two modes of involuntary admission: special circumstances (SC) and

magisterial reception order (RO). For SC, family members or friends can request an admission if this is supported by two medical certificates. This provision is valid for a maximum of 90 days, beyond which an RO has to be obtained to continue the admission. For the RO, family members or the police may apply to a magistrate requesting the admission of a person to a psychiatric hospital. The magistrate has to be satisfied that the person is suffering from a mental disorder that needs admission for treatment or for the safety of others. The magistrate has to take into consideration the evidence of mental illness as certified by a government doctor. The RO is valid for 30 days. Within this period, the treating doctor has to certify the presence of mental illness, failing which the order lapses. If certified, the patient can be detained indefinitely until the treating doctor deems the patient fit for discharge. The patient can appeal against the order or for discharge to the magistrate or higher appellate (*Gazette of India*, 1987).

The objective of the present case-note review is to describe:

- the sociodemographic and clinical profile of people admitted by way of RO (comparisons are drawn with patients admitted voluntarily)
- their clinical outcomes
- the procedural details of the RO process.