

Research papers

Anxiety and depression: a model for assessment and therapy in primary care

Roderick J Ørner MSc

Consultant Clinical Psychologist, Department of Psychological Services, Lincolnshire Partnership Trust, and Visiting Professor in Clinical Psychology, University of Lincoln, UK

Aloysius Niroshan Siriwardena MMedSci PhD FRCGP

General Practitioner Research Lead, West Lincolnshire Primary Care Trust, Lincoln, and Clinical Senior Lecturer, Primary Care, De Montfort University, Leicester, UK

Jane V Dyas DPhil MEd BSc PGDip PGCE

Trent Focus Local Co-ordinator Nottinghamshire and Lincolnshire, Division of Primary Care, University of Nottingham, UK

ABSTRACT

Patients who feel anxious and depressed often turn to primary care for initial professional help. However, systematic service evaluations allege poor standards of diagnosis and treatment, resulting in disappointing clinical outcomes. All the same, special educational and quality improvement initiatives have not raised standards significantly. Why this should be so and possible remedies are suggested by this article, on the basis that the empirical evidence base for criticising primary care standards is weaker than commonly acknowledged. Systematic clinical trials are often premised by assumptions that are not relevant to primary care, they tend to select subject populations unrepresentative of those typically seen by general practitioners and results are often compromised by a series of methodological flaws. This article proposes an alternative conceptualisation of anxiety and depression apposite to primary care assessment and therapy. It draws on

an emergent evidence base within psychobiology that recognises that these reactions have two adaptive functions. Firstly, they are responses evoked by actual personal adversity, secondly they have the function of prompting communication to self and to others of the need for practical remedial action to be taken independently, or with assistance, to improve the quality of the recovery environment. A table summarises the phased stages of anxiety and depression and lists their adaptive and communicative functions along with some phase-appropriate primary care interventions. This new model of assessment and therapy is offered to stimulate discussion and inspire future research that is appropriate for primary care service improvement.

Keywords: anxiety, assessment, depression, psychobiology, therapy

Introduction

Primary care is often the point of first clinical contact for patients who are anxious and depressed. The experience of staff providing care in this setting is rich and extensive. However, a number of studies level criticisms at primary care for its management of anxiety and depression, and undermine claims of effective care. This article seeks to empower primary

care practitioners, including general practitioners (GPs), nurses and counsellors, by proposing a model for anxiety and depression tailored to primary care. It highlights misguided beliefs and conceptual flaws inherent in current formulations of anxiety and depression. Clinical implications of alternative theories derived from psychobiology that view these reactions as adaptive responses to adversity are explored to foster discussion, provide the basis for future research and to improve education of

healthcare professionals and hence deliver better care.

Background

The *National Service Framework for Mental Health* recognises that initial assessment and therapy for anxiety and depression is provided in primary care.¹ However, GPs are also criticised for poor clinical management of these patients, by failing to diagnose these presentations, making incorrect diagnoses, and denying patients treatments that are considered effective.²⁻⁷

Despite considerable efforts to improve the management of anxiety and depression in primary care using drug and psychological therapies of known efficacy, epidemiological surveys claim both are increasing in incidence and prevalence.⁸⁻¹³ It is, however, unclear if this is a true change, or a trend engendered by new screening methodologies. A recent prediction is that by 2020 the economic burden attributed to anxiety and depression will be second only to coronary heart disease.¹⁴

This article questions these critical perspectives and argues that difficulties in managing anxiety and depression in primary care are largely attributable to misguided clinical advice derived from psychiatric illness models of anxiety and depression. Confusion arises because the basis for current recommendations is not only conceptually flawed, but also draws on a weak evidence base that fosters simplistic formulations of personal distress as well as an unwarranted sense of clinical competence, in an area characterised by complex interactions between psychosocial and biological processes.

In this article we suggest an alternative model of assessment and therapy for anxiety and depression in primary care. It breaks with medical model conventions by emphasising the adaptive function of evoked reactions to adversity, and enables consideration of alternative options for planning, co-ordinating, delivering and developing more relevant multidisciplinary services focused on user needs. Table 1 outlines clinical actions indicated by the proposed model.

Conceptual confusion and weak evidence

Advice to primary care teams about how to help those who feel anxious and depressed is confused and misguided because studies informing clinical practice are often carried out in secondary or

tertiary care settings. However, recent publications document significant differences between these populations for age and sex, symptom duration and severity, patients' general health and social functioning.¹⁵⁻²³ This cautions against assuming that findings, conclusions and recommendations pertinent to secondary and tertiary care are also relevant to patients in primary care.

Confusion also arises because the diagnostic language of anxiety and depression lacks precision. This stems from a lack of clarity about whether patients' complaints are normal feelings, mood states, stable or volatile personality characteristics, expressions of reality-based distress or psychiatric illnesses.²⁴ Anxiety and depression are therefore not easily categorised into the distinct diagnostic entities that are a precondition for rigorous academic study and confident professional practice in primary care settings.

The ICD-10 and DSM-IV offer a broad range of diagnostic criteria for a variety of presentations characterised by anxiety and depression.^{25,26} However, these are of limited utility in clinical practice because symptom criteria do not reliably distinguish reactions that are transient, self-limiting, evoked by temporary adversity or that have more sinister aetiologies requiring onward referral.^{24,27,28} This is so whether diagnoses are based on informal assessment, structured clinical interviews or administration of standardised psychometric questionnaires.²⁹⁻³³

All the same, medical, behavioural and cognitive models of anxiety and depression construe these reactions as clinical disorders for which treatment with medication or psychological therapy is indicated.³⁴⁻⁴⁰ It is no wonder therefore that diagnostic guidance and treatment recommendations for anxiety and depression lack clarity. For instance, primary care providers operate in a professional climate of not knowing whether anxiety and depression are distinct or related clinical phenomena.⁴¹⁻⁴⁵ Consensus about their role in the aetiology and treatment of unexplained physical symptoms remains elusive.⁴⁶⁻⁵⁰ Patients' complaints are usually subject to marked fluctuations and those affected are typically less preoccupied with the frequency or intensity of symptoms than with pragmatic considerations of their disruptive effects on day-to-day functioning.⁵¹⁻⁵⁶

Effectiveness, efficacy and clinical guidance

Clinical trials rarely reproduce conditions of primary care service delivery. Discrepancies arise because

methodological rigor demands patient inclusion and exclusion criteria that are not generalisable to primary care. Clinical trials and primary care practice also differ in respect of the professional status of care providers, their level of training or experience, the level of treatment 'fidelity' achieved by adherence to research protocols, the capacity and time to deliver complex psychological assessments and interventions, as well as the frequency and duration of interventions being assessed. Other points of divergence include the management of treatment dropout, non-compliance and remedial help offered for treatment-related side-effects.⁵⁷⁻⁶¹

Group statistical differences and remission rates are typically quoted as measures of treatment effectiveness. Although reported with conviction, it is questionable if these measures are helpful in primary care where clinical imperatives dictate interventions and outcomes that need to be tailored to the needs and priorities of individual patients. For instance, a convention exists in outcome studies to define remission as a 50% reduction in symptom levels. A likely consequence of advocating treatments or therapies evaluated according to this arbitrary benchmark of effectiveness is that many patients will remain encumbered by clinically significant residual difficulties for which resolution will, once again, be sought in primary care. Such outcome criteria fall short of the standards required to address practical day-to-day concerns about improving service delivery in general practice.⁶²⁻⁶⁴

Limitations of medical model-based clinical guidance

Regarding patients' feelings of anxiety and depression as symptoms of illness, rather than adaptive expressions of anguish or despair at a time of personal crisis, runs the risk of devaluing the communicative functions of these feelings.⁶⁵ It may also trivialise inconvenient complexities inherent in patients' current life situations and adverse influences exerted by past experience on current adjustment.⁶⁶⁻⁶⁹

The many influences involved in the genesis and maintenance of anxiety and depression are insufficiently recognised in current medical model formulations presented to GPs. Reductionist perspectives describing assumed neurobiochemical correlates are in vogue. This fosters modes of clinical practice in which resolution is primarily sought through psychopharmacological intervention, and expectations are mistakenly engendered that medication is crucial for effecting resolution to problems. This is not borne out by the evidence,

but the prevailing drug treatment ethos may unintentionally strengthen placebo effects.^{70,71} Less desirable is the time pressure exerted on GPs by patients seeking medical care for psychosocial adjustment difficulties, when public and professional concerns are being expressed about consultation times being too short for considered care planning.^{2,72,73}

A new perspective for clinical guidance

The pathogenesis of anxiety and depression is not fully understood, and many factors are involved in producing these complex reactions. This is clinically inconvenient and gives rise to the compellingly attractive allure of seeming certainties of simplistic formulations. But a failure to recognise their limitations carries a high risk of compromising patient care. Most likely, both anxiety and depression are engendered by psychological, social, familial, lifestyle, organic and circumstantial factors in dynamic interaction. From a primary care perspective it is advantageous to view both conditions as a spectrum of syndromes of behavioural, cognitive, emotional and psychosomatic reactions evoked by actual adversity.

This link between patient presentations and their current life situation suggests a changed emphasis and different approach to assessment. Central to problem formulation is the skill of eliciting patients' narrative that recognises, either implicitly or explicitly, the original circumstances that evoked their distress, as well as continuing adversities that maintain their presenting complaints. So construed, anxiety and depression are expressions of fear, despair and a sense of having lost control over key aspects of life. When first reported they present an opportunity to bridge a communication gap between speaker and listener by prompting more detailed enquiry about matters that may not at first have been explicitly recognised as important for a sense of wellbeing. In this sense therefore, the expression of anxiety and depression is highly functional and adaptive, most especially if patients' communications are responded to as calls for the help and support that is needed to resolve precipitating difficulties and their ongoing consequences.

In general terms, reports of anxiety should prompt clinical enquiry about current threats to psychological, social or physical integrity and the extent to which the patient has the resources required to restore a sense of personal safety and security.^{74,75} Reported feelings of depression can be explored as

communications about life and situational changes that engender despair and hopelessness.^{76,77} These feelings tend to arise under conditions where patients are not in possession of, or are unable to mobilise, personal resources to effectively address current adversities, especially if prevailing life circumstances are perceived as uncontrollable or inescapable.^{78–81} Given the close thematic similarities between factors that are cited to account for the genesis and maintenance of both anxiety and depression, it is unsurprising that many patients present with features of both. This formulation also clarifies why precipitants can be psychosocial (separation, threat, financial difficulty, etc) as well as physical (illness, disability, etc).

In contrast to the biomedical model, this formulation of anxiety and depression paves the way for a multidisciplinary approach to care. It is underpinned by the salutogenic paradigm of Antonovsky and acknowledges multiple determinants of health status.^{82–84} In so doing it upgrades the clinical value of assessments and interventions that are becoming integral to the roles of practice-based nurses and counsellors as well as other providers of psychological therapy in primary care. The new model of service delivery is rooted in recognition of the adaptive communicative functions served by expressions of anxiety and depression. It also highlights the importance of non-organic factors contributing to the genesis, maintenance and resolution of adjustment difficulties. For instance, understanding and ameliorating influences exerted by formative life experiences, taking steps to counteract the adverse influences that may be exerted by initial psychological reactions to situational stressors, and harnessing the remedial influence of social support hold particular promise in primary care management of anxiety and depression.^{85–87}

The clinical significance of brain–behaviour plasticity

Central to this new model of anxiety and depression is the notion that, for all their phased complexities, human responses evoked by changing life circumstances serve adaptive functions. Under circumstances of adversity, adjustments are typically made to promote coping and survival. The processes involved are simultaneously psychological and neurobiological, with a sequential order extending from fragments of seconds (startle), several seconds (sympathetic activation), tens of minutes (activation of the hypothalamic–pituitary–adrenal axis), hours (for early gene expression), to days (consolidation of learning) and months (re-adaptation and recovery).⁸⁸

Only the most acute responses are reflexive. Subsequent reactions are heavily modulated by appraisals of threat, the subjective meanings attributed to unfolding adversities and the extent to which self-esteem is sustained or strengthened through effective coping.^{65,89} The emergent state of neurobiological, emotional, cognitive and behavioural disequilibrium will either help resolve adversity or engender persistent feelings of anxiety and depression.^{90,91} Sharing these feelings and evoked reactions is adaptive if communication strengthens links with possible helpers.

This formulation draws extensively on recent advances in neurobiology that explain how biology affects behaviour, and behaviour in turn affects biology.⁶⁵ The notion of neuroplasticity allows adversity to be seen as producing a state of aversive physical or psychological disequilibrium from which relief will be sought. Relief can be found if an individual is in possession of personal or social resources conducive to coping and mastery. Adversities may be resolved by practical action culminating in the re-establishment of a steady state.⁹² These principles are embodied in Table 1, which also offers guidance about assessment and therapy for those who feel anxious and depressed.

Feelings of anxiety and depression first emerge to signal adversity. They become consolidated when these initially adaptive reactions fail to produce progress towards their resolution. Under such circumstances the new model postulates the emergence of a state of neuro- and psychobiological disequilibrium that provokes adverse behavioural, cognitive, emotional and biological reactions. In turn these exacerbate the subjective sense of adversity and not coping. Securing help becomes an imperative, and the more persistent feelings of anxiety or depression promote survival by prompting help-seeking behaviour.

Recent reports document that brain plasticity increases in adults under conditions of personal adversity. If no help is offered or accepted, or if it is misguided, the effect is to increase the risks of patients' presenting problems becoming persistent and chronic.^{93,94} Adversity therefore does not only precipitate initial feelings of anxiety or depression. It may also, along with altogether different processes unrelated to precipitation (e.g. anxious and depressive ruminations), continue to exert powerfully aversive influences after primary care help and support have been secured.^{65,95,96} A consideration of patients' past experiences and ongoing adversities therefore effectively sets limits for realisable therapeutic outcomes. In fact, only one-third of those treated with antidepressant medication alone achieve remission.^{60,64,97} This model therefore acknowledges that we cannot offer guarantees of permanent resolution.

Primary care assessment, intervention and therapy

Primary care practice has hitherto largely drawn inspiration from models of disorder premised by oversimplified cause–effect relationships. Future provision should be rooted in rationales drawn from more complex models of person–environment relationships and recent advances in our understanding about brain–behaviour plasticity.

This can be achieved by initially carrying out assessments of those who feel anxious and depressed using the perspective outlined above and summarised in Table 1. It features four columns, each headed by descriptions of progressive stages of experienced adversity. Each row describes some of the adaptive challenges presented to anxious and depressed individuals, their informal support networks and roles of primary care professionals. If scanned vertically, Table 1 presents a summary of each stage of phased response to adversity and its distinguishing features. If read horizontally it illustrates how patients' adaptations and needs change through progressive stages towards resolution of adversity and relief of evoked distress. The table is not exhaustive in its details and does not imply an inevitable sequential progression from one stage to the next. In reality, listed stages are schematic, overlaps typically occur and, depending on concurrent life developments (e.g. a sequence of redundancy, having financial problems and then being unexpectedly bereaved), a patient may change rapidly from any one stage to any other.

Primary care staff can promote resolution by focusing on the extent to which reactions evoked by adversity succeed or fail to engender a sense of coping and mastery (see Box 1).⁹⁸ A basic premise in the new approach is that adaptation and survival is enhanced through communication with others. Disclosure improves adjustment, if talking about current and past life experiences evokes in listeners a level of positive concern, and secures help that complements that which patients mobilise for themselves. Calls for help and support, expressed in the form of anxiety and depression, should prompt primary care staff to consider which of a range of considered responses may complement the adaptive measures already taken by patients, their families and networks of friends. Reappraisal of current adversities can be achieved by highlighting how present emotional states bias perceptions, and how patterns of communicating with others can be changed so as to secure more help and support. More detailed assessment of persistent anxiety or depression may, for instance, reveal that the manner of approaching

others is having the unintended effect of preventing solution-focused communication. This is advocated as an alternative to present preoccupations with the morphology of symptoms.

Summary, conclusions and recommendations

This model of anxiety and depression, which we believe relates more closely to clinical challenges in primary care settings, conceptualises these feeling states as natural responses evoked by a life circumstance of personal adversity. Past life experience also shapes individual reactions to particular life events. When carrying out clinical assessments, it is important to view patients' reported reactions as adaptive calls for practical help and supportive care. Once the link between subjective feeling state and life circumstance has been made explicit, it is possible to reach a problem formulation that recognises the different courses of practical action that may be conducive to re-establishing a state of optimal personal wellbeing. Table 1 summarises the key components of this model of anxiety and depression care. Therapeutic interventions can therefore take the form of any personal, interpersonal or social measures that address needs identified in consultation with patients, and the resolution of which involves their active participation.^{99,100}

The practical problem–solution-focused interactions advocated in this article strengthen existing 'common sense' practices and reinforce the importance of harnessing 'non-specific therapeutic variables' in primary care provision. Some aspects of the new, increasingly patient-focused, phased and needs-driven support role may change working practices among members of primary care teams. For instance, during the phases of 'confrontation with adversity' and 'steps towards resolution' described in Table 1, patients may prefer assistance with accessing information on the internet or leaflets published by specialist charities to being prescribed medication. Griffiths has shown that opening a weekly 'Information and Benefits Advice Bureau' in general practice successfully assisted patients whose health was being affected by poverty.¹⁰¹ A groundbreaking clinical initiative suggested by the advocated model of anxiety and depression in primary care would be to extend and evaluate practical, problem-focused innovations that encompass information about the links between anxiety and depression and adversities in patients' current life situations. This could be complemented by opportunities to share

Table 1 A clinician's guide to assessment and therapy for phased stages of anxiety and depression in primary care

	Realisation of adversity prompting clinical presentation	Primary care assessment facilitates confrontation with adversity	Taking steps towards resolution	Indications of persisting adversity
Challenge to satisfactory adjustment	Changed life circumstance, bereavement, threat, violence, exhaustion, uncertainty and dehumanisation	Link anxiety and depression to adversity or changed life circumstance	Acknowledge that adversity is intolerable and reinforce need for resolution through practical action	Enduring or intensifying anxiety and depression. Tendencies to give up or disengage from others. Repetitive ruminations
Concrete objectives promoted by anxiety and depression	Evoked feelings reinforce sense of adversity, signal need for action and contact with others	Patients helped to appreciate feelings are signals of adversity. Prepare to mobilise personal and other resources to address problems	Feelings engender reflection on current predicament and action to resolve adversity	Persistent anxieties signal continuing adversity and crises. Depression expresses despair and withdrawal. More help is needed
Psychological adaptations to adversity	Adversity evokes primary stress responses in preparation for problem-solving action	An accommodation takes place that helps recognise impact of current life situation	Assimilation of reality-based life perspectives helps foster improved understanding and adoption of new coping and adjustment strategies	Failures to address adversity or assimilate new realities reinforce anxiety and depression. Try to identify obstacles to change
Salient behaviour pattern	Preparation for mobilisation of personal resources to resolve adversity, alone or with help of others	Help maintain a sense of personal resilience through coping and control	Active resolution strengthens self-esteem, coping and sense of mastery	Despair, ruminations, hopelessness exhaustion, loss of self-esteem, phobias, increasing dependence and disengagement
Role of informal helpers, e.g. relatives, friends, colleagues, acquaintances	Emotional support, comfort, understanding, safety and practical help	Validate feelings and foster improved understanding of adversity. Practical help and support for primary needs	Be available for active and practical support and encouragement. Through sensitive interaction encourage change	Tendency to disengage; help with practical and symbolic assistance. Try to foster some stability at a time of crisis
Role of primary care professional staff, e.g. GPs, practice nurses and counsellors, other providers of psychological support	Usually not involved	At first presentation listen, explore current adversities, their role in evoking anxiety and depression. Emphasise that feelings gauge adversity and promote improved communication. Initial care planning	Prioritise practical, problem solution-focused help and support. Behaviour therapy techniques may be indicated at this stage	Consider if severity of reactions warrant clinical diagnosis, drug therapy and referral to secondary care therapists

Box 1 Case study

A 35-year-old professional male sought help from his GP having become increasingly anxious the previous two weeks. He had tried, to no avail, to control and master these reactions by common sense distraction techniques (keeping himself busy) that had served him well in the past. Being unable to rest or get good sleep due to disturbing dreams, he reported increasing despair, exhaustion and depression. Concerned for his safety the GP made an urgent phone call to secure a prompt appointment with a clinical psychologist linked to the practice.

At interview, the patient attributed the onset of anxiety and depression to a confrontation at work which, although unpleasant, had been resolved to his advantage. Upon returning home he had reflected with satisfaction on what had been achieved. By the next day however he was in an emotionally agitated state and ruminated anxiously about the situation that had culminated in such unpleasantness. Recurrent dreams involving threat to his own safety woke him from sleep. Unable to concentrate for any length of time he had decided to take some days off work. All the same, feelings of anxiety and depression intensified.

In keeping with the model of anxiety and depression presented in this article, the following explanation was offered to the patient. He had acted sensibly and adapted well to the confrontation. Given the intensity of the feelings that were evoked it was also adaptive to allow extra days before returning to work. The fact that his anxieties had intensified in conjunction with dreams of threat and danger suggested that these feelings might, in actual fact, be useful but distressing warnings that he was living under circumstances of considerable personal adversity both at work and in other spheres of his life.

After reflecting on this formulation he said it had never occurred to him that persistent feelings of anxiety could have their source in a number of general worries he had harboured for some time. These centred on lack of security in the workplace, possible implications of his wife's long-term illness and a number of further family upheavals brought about by his son's involvement in and recovery from a near-fatal road traffic accident. He stated these ongoing adversities had been making his life unsafe and insecure. In consequence he decided to take prompt measures to resolve these adversities and make his family situation a safer one. In conjunction with implementing this action plan his feelings of anxiety and depression abated. At six month's follow-up, progress had been maintained, he had changed his job, secured improved medical care for his wife and his son had moved away from home.

in the experiences of others who are trying to or have taken steps to minimise the impact of adversity on day-to-day functioning. Improved information about, or easier access to, resources that deal with welfare, benefits and legal rights, local social services, housing provision and police powers may also impact on presented problems.

The proposed model of assessment and therapy for anxiety and depression suggests new avenues for research in primary care. We believe that the results of such research will differ markedly from those studies that are or have been critical of primary care provision. In consequence, this line of investigation will engender altogether different guidelines for primary care management of those who feel anxious and depressed. Clearly, there is also a need to investigate the extent to which education and training of primary care service providers should incorporate key components of this model. The objective of so doing would be to foster modes of practice in which staff feel supported in carrying out collaborative assessments, agreeing problem formulations which

are relevant to the phased needs of individual patients, and in collaboration with service users and colleagues starting to implement appropriate action-oriented care plans.

REFERENCES

- 1 Department of Health. *National Service Framework for Mental Health, Modern Standards and Service Models*. London: Department of Health, 2000.
- 2 Wells K, Schoenbaum M, Unutzer J *et al.* Quality of care for depressed primary care patients. *Archives of Family Medicine* 1999;8:529–36.
- 3 Katon W, von Korff M, Lin E *et al.* Adequacy and duration of antidepressant treatment in primary care. *Medical Care* 1992;30:67–76.
- 4 Rosi K, Smith G, Manhews D *et al.* The deliberate misdiagnoses of major depression in primary care. *Archives of Family Medicine* 1994;3:333–42.
- 5 Simon G and von Korff M. Recognition and management of depression in primary care. *Archives of Family Medicine* 1995;4:99–105.

- 6 Rost K, Zhang M, Fortney J *et al.* Persistently poor outcomes of undetected major depression in primary care. *General Hospital Psychiatry* 1998;20:12–20.
- 7 McQuaid J, Stein M, Laffaye C *et al.* Depression in a primary care clinic: the prevalence and impact of an unrecognised disorder. *Journal of Affective Disorders* 1999;55:1–10.
- 8 NHS Centre for Reviews and Dissemination. Getting evidence into practice. *Effective Health Care* 1999;5(1).
- 9 Olfson M, Marcus S, Druss B *et al.* National trends in the outpatient treatment of depression. *Journal of the American Medical Association* 2002;287:203–9.
- 10 Karasu T. The procession of time and paradigms. *American Journal of Psychotherapy* 2000;54:141–7.
- 11 Haley W, McDaniel S, Bray J *et al.* Psychological practice in primary care settings: practical tips for clinicians. *Professional Psychology Research and Practice* 1998;29:237–44.
- 12 McDaniel S. Collaboration between psychologists and family physicians: implementing the biopsychosocial model. *Professional Psychology Research and Practice* 1995;26:117–22.
- 13 Singleton N, Bumpstead R, O'Brien M *et al.* *Office of National Statistics. Psychiatric morbidity among adults living in private households.* London: HMSO, 2001.
- 14 Murray C and Lopez A. Mortality disability and contribution risk factors. Global Burden of Disease Study. *Lancet* 1997;349:1436–42.
- 15 Risdale L, Godfrey E, Chalder T *et al.* Chronic fatigue in general practice: is counselling as good as cognitive behaviour therapy? A UK randomised trial. *British Journal of General Practice* 2001;51:19–24.
- 16 Chisholm D, Godfrey E, Risdale L *et al.* Chronic fatigue in general practice: economic evaluation of counselling versus cognitive behaviour therapy. *British Journal of General Practice* 2001;51:15–18.
- 17 Sharpe M, Hawton K, Simkin S *et al.* Cognitive behaviour therapy for the chronic fatigue syndrome: a randomised controlled trial. *British Medical Journal* 1996;312:22–6.
- 18 Hickie I, Wilson A, Wright M *et al.* A randomised, double-blind, placebo-controlled trial of moclobemide in patients with chronic fatigue syndrome. *Journal of Clinical Psychiatry* 2000;61:643–8.
- 19 Koeing H. Differences in psychosocial and health correlates of major and minor depression in medically ill older adults. *Journal of the American Geriatric Society* 1997;45:1487–95.
- 20 Blanchard E, Schwarz P, Suls J *et al.* Two controlled evaluations of multi-component psychological treatment of irritable bowel syndrome. *Behaviour Research and Therapy* 1992;30:175–89.
- 21 Greene B and Blanchard E. Cognitive therapy for irritable bowel syndrome. *Journal of Consulting and Clinical Psychology* 1994;62:576–82.
- 22 Linton S and Andersson T. Can chronic disability be prevented? A randomised trial of a cognitive-behaviour intervention and two forms of information for patients with spinal pain. *Spine* 2000;25:2825–31.
- 23 Nicholas M, Wilson P and Goyen J. Comparison of cognitive-behavioural group treatment and an alternative non-psychological treatment for chronic low back pain. *Pain* 1992;48:339–47.
- 24 Heath I. There must be limits to the medicalisation of human distress. *British Medical Journal* 1999;318:439–40.
- 25 World Health Organization. *The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research.* Geneva: World Health Organization, 1993.
- 26 American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (4e).* Washington: American Psychiatric Press, 1994.
- 27 Dowrick C and Buchan I. Twelve month outcome of depression in general practice: does detection or disclosure make a difference? *British Medical Journal* 1995;311:1274–6.
- 28 Pincus H, Davis W and McQueen L. 'Subthreshold' mental disorders: a review and synthesis of studies on minor depression and other 'brand names'. *British Journal of Psychiatry* 1999;174:288–96.
- 29 Williams J, Mulrow C and Kroenke K. Case-finding for depression in primary care; a randomised trial. *American Journal of Medicine* 1999;105:36–43.
- 30 Gilbody S, House, A and Sheldon T. Routinely administered questionnaires for depression and anxiety: a systematic review. *British Medical Journal* 2001;322:406–9.
- 31 Dowrick C. Does testing for depression influence diagnosis or management by general practitioners? *Family Practitioner* 1995;12:461–5.
- 32 Coyne J. Self reported distress: analog or Ersatz depression? *Psychological Bulletin* 1994;116:29–45.
- 33 Burke M, Brief A and George J. The role of negative affectivity in understanding relations between self-reports of stressors and strains: a comment on the applied psychology literature. *Journal of Applied Psychology* 1993;78:402–12.
- 34 Pollack M, Zaninelli R, Goddard A *et al.* Paroxetine in the treatment of generalised anxiety disorder: results of a placebo-controlled flexible-dosage trial. *Journal of Clinical Psychiatry* 2001;62:350–7.
- 35 Franchini L, Gasperini M, Perez J *et al.* Dose-response efficacy of paroxetine in preventing depressive recurrences: a randomised, double-blind study. *Journal of Clinical Psychiatry* 1998;59:229–32.
- 36 Golden R, Nemeroff C, McSorley P *et al.* Efficacy and tolerability of controlled-release and immediate-release paroxetine in the treatment of depression. *Journal of Clinical Psychiatry* 2002;63:577–84.
- 37 Llewelyn S and Hardy G. Process research in understanding and applying psychological therapies. *British Journal of Clinical Psychology* 2001;40:1–21.
- 38 Borkovec T and Ruscio A. Psychotherapy for generalised anxiety disorder. *Journal of Clinical Psychiatry* 2001;62:37–42.

- 39 Chambless D and Ollendick T. Empirically supported psychological interventions; controversies and evidence. *Annual Review of Psychology* 2001; 52:685–716.
- 40 Taylor R. Evidence based practice. Where is the evidence? The case of cognitive behavior therapy and depression. *Australian Psychologist* 1998;33:83–6.
- 41 Levine J, Cole D and Chengappa K *et al.* Anxiety disorders and major depression, together or apart. *Depression and Anxiety* 2001;14:94–104.
- 42 Clark D, Steer R and Beck A. Common and specific dimensions of self-reported anxiety and depression: implications for the cognitive and tripartite models. *Journal of Abnormal Psychology* 1994;103:645–54.
- 43 Arborelius L, Owens M, Plotsky P *et al.* The role of corticotropin-releasing factor in depression and anxiety disorders. *Journal of Endocrinology* 1999;160:1–12.
- 44 Neal J, Edelmann R and Glachan M. Behavioural inhibition and symptoms of anxiety and depression: is there a specific relationship with social phobias? *British Journal of Clinical Psychology* 2002;41:361–74.
- 45 Stein M, Fuetsch M, Muller N *et al.* Social anxiety disorder and the risk of depression. *Archives of General Psychiatry* 2001;58:251–6.
- 46 Kroenke K, Spitzer R, Williams J *et al.* Physical symptoms in primary care. Predictors of psychiatric disorders and functional impairment. *Archives of Family Medicine* 1994;3:774–9.
- 47 Watson D and Pennebaker J. Health complaints, stress, and distress: exploring the central role of negative affectivity. *Psychological Review* 1989;96: 234–54.
- 48 Katon W, Sullivan M and Walker E. Medical symptoms without identified pathology: relationship to psychiatric disorders, childhood and adult trauma and personality traits. *Annals of Internal Medicine* 2001;134:917–25.
- 49 Kirmayer L, Robbins J, Dworkind M *et al.* Somatisation and the recognition of depression and anxiety in primary care. *American Journal of Psychiatry* 1993;150:734–41.
- 50 Simon G, von Korff M, Piccinelli M *et al.* An international study of the relation between somatic symptoms and depression. *New England Journal of Medicine* 1999;341:1329–35.
- 51 Rapaport M and Judd L. Minor depressive disorder and subsyndromal depressive symptoms: functional impairment and response to treatment. *Journal of Affective Disorders* 1998;48:227–43.
- 52 Wagner P, Jester D, LeClaire B *et al.* Taking the edge off: why patients choose St John's wort. *Journal of Family Practice* 1999;48:615–19.
- 53 Katon W, von Korff M, Lin E *et al.* Distressed high utilisers of medical care. DSM-III-R diagnosis and treatment needs. *General Hospital Psychiatry* 1990;12: 355–62.
- 54 Katon W, von Korff M, Lin E *et al.* A randomised trial of psychiatric consultation with distressed high utilisers. *General Hospital Psychiatry* 1992; 14:86–98.
- 55 Kessler D, Lloyd K, Lewis G *et al.* Cross sectional study of symptom attribution and recognition of depression and anxiety in primary care. *British Medical Journal* 1999;318:436–40.
- 56 Mathias S, Fifer S, Mazonson P *et al.* Necessary but not sufficient: the effect of screening and feedback on outcomes of primary care patients with untreated anxiety. *Journal of Internal Medicine* 1994;9:606–15.
- 57 Demyttenaere K, Mesters P, Boulanger B *et al.* Adherence to treatment regimen in depressed patients treated with amitriptyline or fluoxetine. *Journal of Affective Disorders* 2001;65:243–52.
- 58 Quitkin F, Rabkin J, Stewart J *et al.* Study duration in antidepressant research: advantages of a 12-week trial. *Journal of Psychiatric Research* 1986; 20:211–16.
- 59 Nierenberg A, McLean N, Alpert J *et al.* Early nonresponse to fluoxetine as a predictor of poor 8-week outcome. *American Journal of Psychiatry* 1995;152:1500–3.
- 60 Simon G, Heiligenstein J, Revicki D *et al.* Long-term outcomes of initial antidepressant drug choice in a 'real world' randomised trial. *Archives of Family Medicine* 1999;8:319–25.
- 61 Grimshaw J, Thomas R, MacLennan G *et al.* *Effectiveness and Efficiency of Guideline Dissemination and Implementation Strategies*. Aberdeen: Health Services Research Unit, 2002.
- 62 Fawcett J and Barkin R. Efficacy issues with antidepressants. *Journal of Clinical Psychiatry* 1997;58: 32–9.
- 63 Nierenberg A and Wright E. Evolution of remission as the new standard in the treatment of depression. *Journal of Clinical Psychiatry* 1999;60:7–11.
- 64 von Korff M and Goldberg D. Improving outcomes in depression. *British Medical Journal* 2001; 323:948–9.
- 65 Shalev A and Ursano R. Mapping the multi-dimensional picture of acute responses to traumatic stress. In: Ørner R and Schnyder U (eds). *Reconstructing Early Intervention after Trauma. Innovations in the care of survivors*. Oxford: Oxford University Press, 2003.
- 66 Spitzer R, Kroenke K, Linzer M *et al.* Health-related quality of life in primary care patients with mental disorders. Results from the Prime-MD 1000 study. *Journal of the American Medical Association* 1995;274:1511–17.
- 67 Vilhjalmsson R. Life stress, social support and clinical depression: a reanalysis of the literature. *Social Science and Medicine* 1993;37:331–42.
- 68 Porcerelli J, Cogan R, West P *et al.* Violent victimisation of women and men: physical and psychiatric symptoms. *Journal of the American Board of Family Practice* 2003;16:32–9.
- 69 Reznick J, Hegeman I, Kaufman E *et al.* Retrospective and concurrent self-report of behavioural inhibition and their relation to adult mental health. *Developmental Psychopathology* 1992;4:301–21.
- 70 Sullivan M, Katon W, Russo J *et al.* Patients' beliefs predict response to paroxetine among

- primary care patients with dysthymia and minor depression. *Journal of the American Board of Family Practice* 2003;16:22–31.
- 71 Priest R, Vize C, Roberts A *et al.* Lay people's attitude to treatment of depression; results of opinion poll for the Defeat Depression Campaign just before its launch. *British Medical Journal* 2003; 313:858–9.
- 72 Secretary of State for Health. *The NHS Plan: a plan for investment; a plan for reform.* London: HMSO, 2000.
- 73 Montano C. Primary care issues related to the treatment of depression in elderly patients. *Journal of Clinical Psychiatry* 1999;60:45–51.
- 74 Freund K, Bak S and Blackhall L. Identifying domestic violence in primary care practice. *Journal of General Internal Medicine* 1996;11:44–6.
- 75 Coker A, Smith P, Bethea L *et al.* Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine* 2000;9:451–7.
- 76 Biondi M and Picardi A. Clinical and biological aspects of bereavement and loss-induced depression: a reappraisal. *Psychotherapy and Psychosomatics* 1996;65:229–45.
- 77 Lindemann E. Symptomatology and management of acute grief. *American Journal of Psychiatry* 1944; 101:141–8.
- 78 Hobfoll S. Conservation of resources. A new attempt at conceptualising stress. *American Psychologist* 1984;44:513–24.
- 79 Seligman M and Meier S. Failure to escape traumatic shock. *Journal of Experimental Psychology* 1967;74:1–9.
- 80 Anisman H, Ritch M and Sklar L. Noradrenergic and dopaminergic interactions in escape behavior: analysis of uncontrollable stress effects. *Psychopharmacology* 1981;74:263–8.
- 81 Breier A. Experimental approaches to human stress research: assessment of neurobiological mechanisms of stress in volunteers and psychiatric patients. *Biological Psychiatry* 1989;26: 438–62.
- 82 Antonovsky A. *Unraveling the Mystery of Health: how people manage others and stay well.* New York: Wiley, 1987.
- 83 Antonovsky A. The sense of coherence as a determinant of health. In: Beattie A, Goot M, Jones L and Sidell M (eds). *Health and Well Being: a reader.* London: Macmillan, 1993.
- 84 Naidoo J and Wills J. *Health Promotion: foundations for practice.* London. Balliere Tindall, 1994.
- 85 Bachar E, Canetti L, Bonne O *et al.* Psychological well being and psychological symptoms in bereaved Israeli adolescents: differential effect of war versus accident related bereavement. *Journal of Nervous and Mental Disease* 1997;185:402–6.
- 86 Resnick H, Acierno R, Stafford J *et al.* Early intervention strategies applied following rape. In: Ørner R and Schnyder U (eds). *Reconstructing Early Intervention after Trauma. Innovations in the care of survivors.* Oxford: Oxford University Press, 2003.
- 87 Kawachi I and Berkman L. Social ties and mental health. *Journal of Urban Health* 2001;78:458–67.
- 88 Post R. Transduction of psychosocial stress into the neurobiology of recurrent affective disorder. *American Journal of Psychiatry* 1992;149:999–1010.
- 89 Lazarus R and Folkman S. *Stress, Appraisal and Coping.* New York: Springer, 1984.
- 90 Segal N and MacDonald K. Behavioral genetics and evolutionary psychology: unified perspective on personality research. *Human Biology* 1998;2:159–84.
- 91 Resnick H, Yehuda R, Pitman R *et al.* Effect of previous trauma on acute plasma cortisol level following rape. *American Journal of Psychiatry* 1995;152:1675–7.
- 92 Selye H. *The Stress of Life.* New York: McGraw-Hill, 1956.
- 93 Adamec R. Transmitter systems involved in neural plasticity underlying increased anxiety and defense – implications for understanding anxiety following traumatic stress. *Neuroscientific and Biobehavioural Review* 1997;21:755–65.
- 94 Kim J, Foy M and Thompson R. Behavioral stress modifies hippocampal plasticity through N-methyl-D-aspartate receptor activation. *Proceedings of the National Academy of Sciences of the USA* 1996;93:4750–3.
- 95 Antelman S. Time-dependent sensitization as the cornerstone for a new approach to pharmacotherapy: drugs as foreign/stressful stimuli. *Drug Development Research* 1988;14:1–30.
- 96 Yehuda R and Antelman S. Criteria for rationally evaluating animal models of posttraumatic stress disorder. *Biological Psychiatry* 1993;33:479–86.
- 97 Fawcett J and Barkin R. A meta-analysis of eight randomised, double-blind, controlled clinical trials of mirtazapine for the treatment of patients with major depression and symptoms of anxiety. *Journal of Clinical Psychiatry* 1998;59:123–7.
- 98 Grinker R and Spiegel J. The neurotic reactions to severe combat stress. In: Grinker R and Spiegel J (eds). *Men under Stress.* Philadelphia: Blackiston, 1945.
- 99 Jones L and Sidell M (eds). *The Challenges of Promoting Health; Exploration and Action.* London: Macmillan Press, 1997.
- 100 Katon W. Collaborative care models for the treatment of depression. *American Journal of Managed Care* 1999;5:794–810.
- 101 Griffiths S. *Through Health Workers to Welfare Rights. A report on the Health and Benefits Pilot in Goodinge and Finsbury Health Centres.* Camden and Islington FHSA: London, 1993.

CONFLICTS OF INTEREST

None.

ADDRESS FOR CORRESPONDENCE

Roderick J Ørner, Department of Psychological Services, Baverstock House, St Anne's Road, Lincoln LN2 5RA, UK. Tel: +44 (0)1522 560617; fax: +44 (0)1522 546337; email: rorner@cix.co.uk

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