Editorials

Depression: major problem for public health

EUGENE S. PAYKEL

Abstract. The aim of this Editorial is to discuss depression as an important disorder for public health. The literature regarding epidemiology, consequences, adequacy of service delivery and prevention of depression is reviewed. Depression is a common disorder with high lifetime rates, particularly in women, and those experiencing social adversity. It is a major cause of disability, and causes death both by suicide and due to raised rates of physical disorders. Many cases are undiagnosed and treatment is often inadequate. Primary prevention is not yet easily feasible but secondary prevention by earlier recognition, public and professional education, can produce benefits. There is a need for public health programmes aimed at improving recognition, treatment, and reducing consequences.

The public health approach to a disorder concerns its occurrence in populations. It encompasses consideration of its epidemiology; consequences; causes, especially those relevant to prevention; treatment, including delivery of services, access and outcome; prevention. Seen in this context depression emerges as a major problem: a common disorder, which produces much disability, impact on families and children, economic costs, load on services, death by suicide and from physical disorders. There are large deficiencies in recognition and treatment delivery which need to be addressed. In reviewing these issues European studies will be given particular attention.

EPIDEMIOLOGY AND ASSOCIATED FACTORS

The last quarter century has seen great activity in psychiatric epidemiology, with improved interview case finding methods leading to numerous large scale community surveys in many countries, and rates for disorder which are now fairly consistent and well established, at least for affluent Western countries. We have recently reviewed European studies of depression (Paykel et al., 2005a). For 12 month prevalence, figures vary between 3% and 6%. In the ESMed collaborative study of six Western European countries (Alonso et al., 2004) the one year prevalence was 3.9%. In the International Consortium of Psychiatric Epidemiology surveys, using the CIDI (Andrade et al., 2003), covering a wider range of countries, one year prevalences ranged from 1.2% for Japan, to 5.9% for the Netherlands. Recent US figures from the National Comorbidity Survey Replication (Kessler et al., 2005) give a higher 12 month prevalence of major depression of 6.7%. There is consistent female predominance of 2:1 or more, higher rates with lower social class and deprivation, a trend to a curvilinear relationship with age with highest rates in middle age, and high comorbidity with anxiety disorders and physical disorders.

While prevalence has been studied extensively, incidence of first episodes and annual episode rates are less clear. To establish reliable incidence over a period requires studies employing two or more waves, the first to detect pre-existing disorder, the second to determine the occurrence rate of further new cases. Particularly problematic are lifetime rates. Estimation from a single interview is somewhat risky, since recall is likely to be incomplete and selective (Paykel, 2000). The Swedish Lundby study, which interviewed subjects from the same population twice with a 15 year gap, obtained lifetime estimates of approximately 32% in women and 17% in men (Rorsman et al., 1990), and a British study using rather different methods obtained somewhat similar values (Bebbington et al., 1989). Differential drop off in recall with age probably explains inferences from single interview studies that rates of depression are increasing.
Depression ranks highest among all disorders for YLDs (World Health Organization, 2001).

There have also been many studies of disability and social dysfunction in clinical samples with depression. These show considerable work disability, and impact on activities and relationships, including marital relationships and relationships with children, which recover more slowly than symptoms (Weissman & Paykel, 1974). Post-natal depression affects social, emotional and possibly, cognitive development of infants (Murray et al., 1999). Children of depressed mothers have increased rates of depression (Weissman et al., 1987).

Depression has associated mortality. Ultimately about 15% of patients treated by psychiatrists die of suicide (Guze & Robins, 1970; O’Leary et al., 2001), with annual suicide rates around 30 times general population rates (O’Leary et al., 2001; Harris & Barracough, 1998). Suicide rates vary markedly among countries but the role in this variation of the link with depression has not yet been well studied internationally. In Hungary, with a particularly high suicide rate, a high proportion of attempted suicides have been reported to show major depression or bipolar disorder (Balazs et al., 2003).

Follow-up studies also consistently show raised natural cause mortality (eg Abas et al., 2002; Hansen et al., 1997; Penninx et al., 2001; Pulska et al., 1999). There is a particular relationship with ischaemic heart disease (Barrick, 1999; Hippisley-Cox et al., 1998).

Depression produces substantial economic costs, both through costs of health and social care, and from other costs such as work days lost. In the USA (approximately 270 million population) total costs have been variously estimated at $16 billion (Stoudemire et al., 1986), $30 billion (Rice & Miller, 1995), $44 billion (Greenberg et al., 1993). European studies have found widely varying figures (Lothgren, 2004; Andlin-Sobocki & Wittchen, 2005). A recent study in England (Thomas & Morris, 2003), estimated total costs in the approximately 50 million population at over 9 billion pounds, of which only 370 million pounds were direct treatment costs, and the remainder indirect costs, mainly due work days lost. Effective intervention can therefore be very cost-effective, if work days lost are reduced.

CONSEQUENCES

Depression is disabling and this has been shown in many studies. For instance, in the ESMeD European study mood disorders and anxiety disorders ranked more highly than a number of common physical disorders for work days lost (Alonso et al., 2004). In a German primary care study depressed patients had 11 times as many days with total impairment as non-depressed patients (Wittchen & Pittrow, 2002). In the UK Whitehall studies, psychiatric disorder, largely neurosis, was the second cause of very long absence (Stansfeld et al., 1995). In the USA, the Medical Outcomes Study (Wells et al., 1989) found depression associated with as much poor functioning as a number of common chronic medical conditions.

Updated figures for 2000 from the ‘Global Burden of Disease’ study (Üstün et al., 2004), measuring impact in DALYS (Disability Adjusted Life Years), which encompass both mortality and disability, show depression ranking fourth globally, third in Europe and first in the Americas. DALYS are a compound measure involving both disability and death. In some respects better measures for depression are YLDs (Years of Life Lived with Disability), which only consider the disability element.
placebo. The older anti-depressants have low costs. Favoured individual drugs vary by country, reflecting local preferences and marketing. Most antidepressant trials have used secondary care psychiatric samples but there is evidence of benefit in milder general practice major depression, including European trials (Paykel et al., 1988; Lecrubier et al., 1997; Malt et al., 1999).

The evidence for psychotherapies is weaker than for antidepressants. Interpersonal therapy (IPT) has been found effective in US studies, and group and family therapy have been evaluated in a few trials. In primary care in the UK counselling is used extensively, but benefit is limited (Bower et al., 2003; Simpson et al., 2003).

There is much stronger evidence for cognitive-behavioural therapy (CBT) in milder depressions, including in primary care, when given by cognitive therapists (Scott & Freeman, 1992; Teasdale et al., 1984), but not as a brief procedure taught to GPs (King et al., 2002). A computerised approach, which is less costly and not limited by shortage of therapists, has been found effective in general practice (Proudfoot et al., 2003).

There is also good evidence that anti-depressants should be used routinely for 6–9 months after remission to reduce relapse rates, and that they are of value in longer term treatment to prevent further episodes in recurrent patients (Paykel, 2001). CBT also appears to have specific effects (Paykel 2001; Paykel et al., 2005b) and its place is evolving.

In spite of modern treatments, depression is still often a recurrent disorder (Paykel, 2001). Acute short term outcome is fairly good, with most patients showing some improvement, a small proportion remaining chronic and unremitted, but around 20–30% showing partial remission with residual symptoms. However around 30% of subjects relapse in the first year and in the long term 70–80% have at least one further episode, and long term outcome, found in the early 1980s to be characterised by high rates of relapse and recurrence (Keller et al., 1983), remains problematic even in recent studies.

A recent British 10 year follow-up study found recurrence in 67% and considerable inter-episode symptoms (Kennedy et al., 2003; 2004). In one of the few studies of out-patients, Van Londen et al. (1998) in the Netherlands found 41% recurrence in five years. Residual symptoms have been found in a number of studies to predict relapse (Paykel et al., 1995; Pintor et al., 2003). In Denmark, over 25 years following first admission approximately 55% of unipolars had a further admission (Kessing et al., 1998). In an Italian follow-up (Maj et al., 1992) recurrence occurred in 75% by five years. Much of the adverse outcome appears to reflect an adverse natural history rather than deficiencies in treatment delivery in practice (Ramana et al., 1999).

These findings have one serious limitation. Most are based on depressives in psychiatric secondary care, usually hospitalised. The very few primary care studies with follow-up beyond 1-2 years (Ormel et al., 1993, Van Weel-Baumgarten et al., 1998; 2000) suggest a less recurrent disorder. This also applies to depression identified in community surveys, for which the high lifetime incidence rates strongly suggest that many episodes must be single and time-limited.

**HEALTH CARE AND PRIMARY CARE**

A pathway with many determinants leads from the community to various levels of health care, including primary care, specialist outpatient and inpatient care. Different countries differ quite widely in health care systems, mode of funding (state, insurance, private), extent to which health care is primary care or specialist based. The impact of these differences on proportions of people treated in various settings has not been sufficiently studied.

In the ESMeD European study (Alonso et al., 2004), across countries only 37% of subjects with mood disorder in the last year received any health care, with 35% of these receiving GP care only, 31% care from GP plus a mental health professional, and 36% from a mental health professional only. In Finland a recent community survey (Hamalainen et al., 2004) found only 27% of depression cases had used health services in the last year, with more in specialist services (16%) than in primary care (11%). In the Netherlands the NEMESIS study found that 64% of subjects with mood disorders received some form of help, 54% of these (35% of the total) from primary care, 34% (18% of the total) from ambulatory mental health services (Bijl & Ravelli, 2000). In Germany (Jacobi et al., 2004) 41% of those with pure depressive disorder and 62% of those with two additional disorders received some form of care. Even in the USA, with a very different health care system and much more use of specialist care, in the Epidemiologic Catchment Area Studies in the 1980s, only 54% of those with major depression had received any care in the last year, much of it from non-specialists (Regier et al., 1993), while the most recent figures, from the National Comorbidity Survey replication, is a similar 52% about equally divided between specialist mental health and general medical care (Wang et al., 2005).

In the UK Goldberg & Huxley (1992) reviewed five levels and the filters between them, with estimates of annual prevalence per 1000 in Manchester: disorder in
the community (250-310); total morbidity presenting in primary care (230); disorder identified in primary care (101.5); total morbidity presenting to psychiatric services (20.8); psychiatric inpatients (3.4). They described some differences in rates in Groningen and Verona. In the UK 1993 National Morbidity Survey 40% of males with depressive episode and 51% of females saw their general practitioner for mental health problems in the past year (Bebbington et al., 2000a), while 15% (29% of those consulting) received an antidepressant (Bebbington et al., 2000b). Seven years later in a repeat of the survey, consultation with general practitioners and prescription of antidepressants had increased (Brugha et al., 2004).

Primary care is a key level in care for depression. In the UK general practitioners treat much of depression themselves, with only 15%-20% of those they see referred to specialist psychiatrists or other mental health workers. Among depressives treated by GPs with antidepressants about 50% were found to be major depressives while of those given other treatments, only 20% were (Sireling et al., 1985). Major depressives not recognised by the GP had less overt and typical symptomatology, less depressive mood and insight, longer illnesses and more physical illness (Freeling et al., 1985). Physicians’ interview behaviour influences accurate recognition (Goldberg & Huxley, 1992).

The recognition rate in general practice is consistently around 40-60% in European studies, including in Italy (Balestrieri et al., 2004), the Netherlands (Ormel et al., 1991), Belgium (Ansseau et al., 2004), Germany (Wittchen & Pittrow, 2002), Finland (Joukamaa et al., 1995; Karlsson et al., 2000), and in a Nordic multicentre study with most cases treated by the general practitioners (Munk-Jørgensen et al., 1997). Patients are often seen repeatedly and in a British study of missed cases of depression or anxiety, 41% were recognised in the next three years (Kessler et al., 2002).

There has been considerable work on screening questionnaires, including the non-specific General Health Questionnaire (GHQ) in the UK (Goldberg & Huxley, 1992), development of the Personal Health Questionnaire (PHR) in Italy (Rizzo et al., 2000) and a comparison of several different scales in Germany (Henkel et al., 2003). There is only limited evidence of outcome benefit from these (Gilbody et al., 2001).

Training of general practitioners has been found to improve depression recognition and management in various countries, including the Netherlands (Tiemens et al., 1999; van Os et al., 2002) and Denmark (Pedersen et al., 2001). In the UK training GPs in interviewing has been shown to improve interviewing style and recognition of psychiatric disorder in general (Bowman et al., 1992). However, the large Hampshire Depression Project (Thompson et al., 2000) did not improve actual patient outcome and neither did a study based in Manchester (Gask et al., 2004). The most widely quoted general practitioner educational project is the Gotland study (Rutz et al., 1992) where an intensive educational programme resulted in higher rates of antidepressant prescribing, decreased psychiatric admission, and a decrease in the number of suicides.

In campaigns combining public and professional education, the UK Defeat Depression Campaign improved public attitudes to depression (Paykel et al., 1998). Anti-depressant prescribing rates and adequacy tend to be low (Thompson & Thompson, 1989; Dunn et al., 1999; Balestrieri et al., 2004), with variations among different European countries (Linden et al., 1999; Alonso et al., 2004). In the USA, in the NIMH Collaborative Depression Psychobiology Study, in specialist centres, only 49% of subjects received an antidepressant at adequate dose for as long as four weeks (Keller et al., 1986). In general, people with depression tend to have negative attitudes to antidepressants and to prefer psychotherapeutic treatments in spite of the limited evidence for their efficacy. Again, public education can improve attitudes, although changes may be relatively small (Paykel et al., 1998).

In the USA, Katon, Simon et al. (2000) have shown improved treatment delivery and outcome in general practice in several controlled trials of structured depression management programmes, involving GP and patient education, with additional specialised workers such as nurses or psychiatrists, less used in Europe, producing the best results.

PREVENTION

The large body of evidence on risk factors, protective factors, consequences and the extent of depressive disorder has not been mirrored adequately in translation into action. There is a need for further public health programmes that attempt to reduce rates and consequences, such as the examples cited earlier, including educational programmes for the general public and for primary care workers, and other programmes to enhance primary care management. These fall under the rubric of secondary prevention. So do early intervention programmes for life crises such as bereavement.

Primary prevention needs to be approached realistically and cautiously because of the wide range of causative factors (Paykel & Jenkins, 1994). The best established social causes, such as life events and poor social support, seem in many cases inevitable consequences of the life cycle, or of family relationships, particularly in affluent
and settled circumstances, although less so in groups and areas under marked social adversity. There have been attempts at preventive programmes for adolescents and young adults in the USA, evaluated by randomised controlled trials (Clarke et al., 1992). In Australia there has been considerable federal and state backing for mental disorder prevention. Although we do not yet have evidence on which to base clear recommendations, further studies of pilot programmes would be timely. These should be accompanied by rigorous evaluation.

REFERENCES


---

Epileptologia e Psichiatria Sociale, 15, 1, 2006


E. S. Paykel

Epidemiologia e Psichiatria Sociale, 15, 1, 2006

10