



**Mental Capital and Wellbeing:
Making the most of ourselves in the 21st century**

**State-of-Science Review: SR-E21
Depression and its Toll on Mental Capital**

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“People learn that they do not control their own fate, and this does not give them the optimal psychological profile for economic development which requires optimism, trust and taking risks. The mental capital of developing countries is something we should think more about.”

Weehuizen, 2006

Summary

This review explores how depression can adversely affect economic development and how changes in employment practice may be associated with increased rates of depression in the UK, the developed and the developing world. To establish why these interactions are important, we first describe the nature and size of the problem and identify socio-demographic groups at high risk of depression, and then detail the impact of the disorder on individual employee performance and describe the general economic consequences. Finally, the reasons why depression is likely to continue to have an impact on economic development and the policies that may need to be considered if we are to counteract its negative effects are briefly highlighted.

1. Depression: the facts

1.1. *What is depression?*

Depression is one of the three most common mental disorders seen in community settings. It is characterised by a persistent and significant change in mood state that most individuals describe as different in quality or quantity to their previous reactions to negative events or experiences. This mood alteration is associated with physical changes such as loss of appetite and/or weight, change in sleep patterns and loss of energy. Other psychological symptoms such as difficulties in concentrating on or recalling information, preoccupation with negative thoughts about the self and hopelessness about the future are also common. This pattern of affective (mood), somatic and cognitive symptoms occurring together and persisting for many weeks or months constitute a clinically-significant depression. Often, when individuals consult a general practitioner (GP), they report additional psychological or physical symptoms such as anxiety, muscle tension or pain. These symptoms can distort the clinical picture seen at GP consultations and become the focus of attention, thus ‘masking’ the underlying diagnosis and delaying the recognition and treatment of a depressive episode.

The other issue to note from this overall description is that, whilst change in mood, weepiness and loss of concentration frequently occur in individuals who are distressed (and may transiently impair capacity to function at work), these symptoms alone would not usually meet the threshold criteria for a depressive episode. This means comparisons between different studies should be viewed with caution. Research focusing on depressive symptoms (rather than the syndrome), unspecified mental disorders, psychological problems or ‘stress reactions’ may over-estimate the number of individuals affected, but significantly underestimate the duration of any socioeconomic disadvantage and the severity of disability and economic consequences associated with a depressive episode meeting diagnostic criteria.

1.2. *Morbidity and mortality*

Depression is often referred to as the ‘common cold of psychiatry’. Unfortunately, this analogy fails to reflect the reality. Like the common cold, it is highly prevalent. However, unlike the common cold, most depressive disorders are not mild and self-limiting (Scott, 2006). The statistics about the course and outcome of depression confirm that it is a major public health problem (Greenberg et al., 1993): at any

point in time, about 6% of the world population meet criteria for either major depressive disorder (MDD) or dysthymia (depressive symptoms that are less severe than MDD but persist for many years). Dysthymia is about twice as common as MDD, but about 80% of individuals with this disorder eventually experience an episode of MDD (Keller et al., 1992). Similarly, about 20% of those with MDD will have symptoms that persist beyond two years.

The problem of symptomatic chronicity is mirrored by equally problematic and high rates of recurrence: 70-80% of individuals who achieve remission will experience at least one recurrence. Indeed, 30% will relapse within three months of becoming symptom-free and 50% within two years (Paykel et al., 1999). Up to 15% of individuals who experience a clinical depression may kill themselves and the standardised mortality ratio (SMR is a measure of additional deaths above the expected rate) for death by suicide in people suffering unipolar depression, shows a twenty-fold increase over rates reported for the general population. Furthermore, deaths from natural causes show a two-fold increase (Ustun, 1999). This is explained in part by the strong and robust association between depression and certain medical disorders, especially the 'metabolic syndrome', the collective name given to the constellation of cardiovascular disease, diabetes mellitus and certain forms of hyperlipidaemia and obesity (Barker, 1997). Depression in those with a primary medical disorder may also adversely affect the outcome from their physical health problems. For example, death rates from myocardial infarction (MI) are significantly greater for individuals who are depressed following the infarction, both in the immediate few months post-MI and for at least 12 months afterwards (Frasure-Smith et al., 2000).

The above data have been well known within psychiatry for many decades, but sadly the information has had only limited impact on the perceptions of depression held by the public at large and within general medicine (Hays et al., 1995). Misunderstandings in the general public about the nature of clinical depression, with individuals with the disorder being regarded as 'unbalanced, neurotic and irritating' (Priest et al., 1996), lead to stigmatisation and a considerable under-estimation of the actual impact of the disorder on the individual and society.

In medical settings, ignorance of the morbidity and mortality statistics has, to a certain extent, been corrected by a detailed evaluation of the global burden of disease undertaken by The World Bank (Murray and Lopez, 1996). This report employed a single standard construct, named the DALY (Disability Adjusted Life Year) to objectively quantify total disease burden, by summing years lost due to premature mortality and years lost due to disability. Murray and Lopez (1996) reported on an extensive range of major physical and mental disorders, and demonstrated that depression was the No. 1 contributor to the global burden of disease in adults of working age (19-45 years) in the developed world, accounting for 10% of all DALYs lost worldwide. Furthermore, DALYs lost to depression are projected to rise to 15% by the year 2020, placing depression second only to ischaemic heart disease in worldwide ranking for global disease burden for all age groups and continents.

1.3. Which socio-demographic groups are at risk?

The age of first onset of depression worldwide shows a peak in early adult life, with women about twice as likely as men to experience a depressive episode over their lifetime. The estimated prevalence for MDD alone among 16- to 65-year olds is about 2% (males 1.7%, females 2.5%), in Western societies (Singleton et al., 2003). However, socio-demographic factors that may relate to employment or economic status are worth noting. For example, the female preponderance of depression is most marked in the 18- to 40-year age group, but after the age of 55 the gender ratio actually reverses. In the UK, being in full-time employment is associated with lower rates of depression in both genders (about 1%), with the next lowest rate in unemployed men (2.7%), and the highest rate in unemployed women (5.6%) (Singleton et al., 2003). If economic factors such as lack of home ownership and overall unemployment rates within a given neighbourhood are incorporated into the calculations, measures of social deprivation account for

an estimated 50% of the variance in the percentage of individuals attending their GPs with depressive disorders (Ostler et al., 2001).

2. Economic consequences of depression

2.1. Depression, disability and employment

The data described in the last section indicate that employment may have a protective role against the development of depression, whilst unemployment or other linked indices of socioeconomic deprivation may be stressors associated with increased rates of depression. In comparison to other medical disorders such as diabetes, hypertension and lung diseases, depression is associated with significantly worse outcomes across a spectrum of measures, including greater physical limitations and use of hospital bed-days, worse subjective health, and greater social and occupational disability (Judd, 1995; WHO, 2001). Days lost from work due to depression exceed all other disorders. On average, individuals reporting depression are estimated to lose 22 work days per annum compared with 4-6 days for non-depressed individuals, plus impaired performance even when attending work (Lépine et al., 1997). The UK Health and Safety Executive has estimated that 5-6 million days, in total, are lost because of depression.

As noted by Stewart et al. (2003) and Wang et al. (2004), the symptoms of depression may directly or indirectly lead to reduced productivity (due to lack of concentration and slowed functioning), even when an individual is at work (sometimes referred to as 'presenteeism'), as well as impaired social functioning (due to social withdrawal and reduced communication ability). These consequences, along with the negative thinking associated with depression, may be associated with loss of confidence and reduced self-esteem and can lead to further impairment in work functioning and disturbed relationships with work colleagues and family members.

Tensions and problems may particularly occur if other individuals presume the reduced functioning of the depressed person is wilful rather than a result of ill-health. The persistent and recurrent nature of depression may mean that problems accumulate and increase the chance that individuals will be unable to retain their employment, in many cases further damaging self-confidence and self-esteem – increasing stressors that may contribute to the persistence of the depression e.g. as a result of family breakdown and/or because of financial difficulties.

Overall then, depression is a major cause of reduced quality of life. In many individuals, reduction or amelioration of symptoms does not immediately restore them to their premorbid level of functioning, so impairments may persist even when the person is no longer regarded as meeting criteria for a depressive episode.

2.2. Economic burden on society

Recent economic analyses vividly portray the economic consequences of depression. For example, In the US, the total annual cost associated with depression was estimated at \$83 billion (in the year 2000), 69% of which was for lost employment and premature mortality (Greenberg et al., 2003). A recent Europe-wide study (Sobocki et al., 2006) of 466 million people in 28 countries demonstrated that depression was the most costly brain disorder in Europe, accounting for 33% of all costs. The study further estimated that at least 21 million individuals were affected by depression at a total annual cost of 118 billion euros (corresponding to 253 euros per inhabitant). In the NHS, the cost of treating depression (£887million) exceeds the combined cost of treating both hypertension (£439 million) and diabetes (£300 million) (Department of Health, 1996).

However, studies from around the world consistently demonstrate that the direct healthcare costs are dwarfed by the indirect costs (Berndt et al., 2000). For example, in a study of depression in Manchester (Goldberg et al., 1996), total service costs during six months were about £425 per person, but lost productivity costs due to morbidity were on average £2,575 per person. In Britain, those with mental disorders have the lowest employment rate of any disabled group (Scott, 2006), with concomitant losses in personal and family income (and consequent reductions in tax revenue) and greater reliance on the welfare state.

The longer-term consequences of depressive episodes are also significant. In Europe, depression is the leading cause of long-term disability and early retirement (Mental Health Economics European Network, 2004). Thus, the economic burden on family members and society is considerable, accounting for 60-85% of the total cost of depression (Broadhead et al., 1990). In total, the economic consequences of depression represent a significant proportion of Gross National Product, estimated at about 2-4% in the developed world and about 1% for all countries worldwide (Kind and Sorensen, 1993;WHO, 2001).

3. What are the consequences for mental capital?

According to the Office for National Statistics (2000) the age-standardised prevalence of depression in primary care grew from 1.9% to 2.9% for males and from 2.7% to 7% for females over the four years from 1994-98. Whilst increased individual acknowledgement of psychological problems and improved recognition by GPs will account for some of these rises, other hypotheses relate them to the psychological consequences of changes in the workplace. Some individuals who lack the skills required to work in service-based economies are at risk of depression associated with the stress of being unemployed, whilst others still lack the level of resilience now required to work in these challenging, new environments. An influential report in the Netherlands (Weehuizen, 2006) makes three critical points:

- a) People work increasingly with their heads instead of their hands, which means mental wellbeing is a critical factor for economic growth. However, employment in the 'knowledge economy' leads to high levels of stress and depression. These new types of working practice and the pressure to be ever more productive damage the 'mental capital' of a nation and undermine its success.
- b) Weehuizen goes on to suggest that this may explain the 'happiness paradox', whereby increasing numbers of individuals in the leading economies appear to be less happy despite being financially better off than their predecessors. The study emphasises that what drives economic growth is not necessarily good for mental health; but mental health is essential for further growth.
- c) Current treatments for depression, whether pharmacological or psychological, tend to be offered at a relatively late stage when depressive symptoms are fully formed and already have had significant detrimental effect on personal function and productivity. Even if more effective symptomatic treatments are devised, these will have limited potential to reduce the pervasive effects of manifest depression upon mental capital: often closing the stable door after the horse has bolted. This is not to deny the importance of developing new symptomatic treatments which will have greater impact in relieving or reversing depressive symptoms *per se*. But this does serve to highlight that earlier prevention is the most likely effective solution to reducing the long-term impact of depression on mental capital.
- d) These preventative interventions need to involve a wide variety of strategies, including: education to enhance basic coping skills; increasing self-awareness and cognitive, social and emotional skills to make workers better able to function in the knowledge economy; and encouraging human resources departments of companies to extend their policies to prevent mental health problems.

4. Conclusions

The individual and societal costs of depression in terms of quality of life and the economy exceed those associated with many common, persistent medical disorders. Like Sturm and Wells (1995) we conclude that investments in improving the early identification and treatment of depression are essential for economic development.

A recent European Union publication identified that key first steps are:

- 1) Raising awareness of the challenges and the health, social and economic benefits of preventing depression and promoting mental wellbeing across all groups.
- 2) Recognition by employers of the advantages of providing a flexible and appropriate working environment to maintain individuals in, and return them to, employment, and to reduce absenteeism, unemployment and early retirement or use of disability pensions (European Communities, 2004).

Weehuizen (2006) echoes these comments, suggesting that governments should invest more in the mental capital of their economies by putting more money into the treatment of depression and mental health-related problems. Such policies are currently being explored in the UK (Layard, 2004), although the actual methodology is not without its critics (Summerfield and Veale, 2008).

Even more importantly, Weehuizen (2006) argues for investment in prevention, noting that every euro spent on treatment of mental health-related problems saves 20 to 30 euros in future costs, especially if interventions are selective or targeted, rather than universal (Scott, 1995; Spence et al., 2005).

More generally, she points out that, if the strategies adopted by rich countries have not produced healthy economic development – economic growth and contributing to the wellbeing of a healthy workforce – then developing countries should be discouraged from following the same employment pathways.

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