

# Emotional health problems are the most important cause of disability in adults of working age: a study in the four counties of the old Oxford region

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## Abstract

**Objective**—To assess the contribution of emotional health problems to the burden of disability affecting people of working age.

**Design**—Analysis of data collected in a postal questionnaire survey of a random sample of people aged 18–64 years.

**Setting**—The four counties of the old Oxford region in 1991.

**Subjects**—9332 people who responded to a questionnaire survey mailed to 14 000 people randomly selected from the Family Health Service Authority registers of the four counties of Berkshire, Buckinghamshire, Oxfordshire, and Northamptonshire.

**Outcomes measures**—Interference with work or other regular daily activity as reported in questions 4 and 5 of the health status measure SF-36.

**Results**—In this population the prevalence of disability attributable to emotional health problems was greater than that attributable to all physical health problems combined. People reporting that their work or other regular daily activity was affected by their emotional health were much less likely to report a long-standing illness, consultation with a GP or consultation with a hospital doctor than people reporting a physical health problem.

**Conclusions**—Emotional health problems are a more important cause of disability in adults of working age than all physical health problems put together. Their im-

portance is underestimated in health needs assessment exercises, which are based on NHS consultation rates or reporting of chronic illness. Research into the causes, prevention, and management of emotional health problems should be a national priority for the health service.

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Throughout the western world life threatening illness is becoming less common in the working population and more people are surviving to become disabled in later life. The prevention and amelioration of disability has, as a result, become an important goal for public health and a priority for national health services.

Routinely available health information provides an accurate estimate of the prevalence of diseases that kill and those that cause acute illness but does not provide a clear picture of the prevalence and causes of disability. Measuring the prevalence of disability is a complex methodological task because people may be disabled in many different ways (for example, deafness, incontinence, learning disability, behaviour problems) at different levels of severity and many people with disabilities suffer from multiple disabilities. The population surveys that have tried to tackle these problems<sup>1 2</sup> have relied on self report or reporting by another member of the family for the identification of cases. This method assumes that respondents and their families do accurately report the full range of disabilities at a similar level of severity.

### SF 36 questions 4 and 5

4 During the **past four weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?

- (a) cut down on the **amount of time** you spent on work or other activities
- (b) **accomplished less** than you would like
- (c) were limited in the **kind** of work or other activities
- (d) had **difficulty** performing the work or other activities (eg it took extra effort)

5 During the **past four weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

- (a) cut down on the **amount of time** you spent on work or other activities
- (b) **accomplished less** than you would like
- (c) didn't do work or other activities as **carefully** as possible

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The health status measure SF-36<sup>3,4</sup> includes two very general questions that ask respondents about the impact of health problems on their work or other regular daily activity over the past four weeks. The first asks respondents whether their work has been affected by their physical health; the second asks the same question in relation to emotional problems. These questions form part of a well validated instrument, which has been widely used in this country and abroad. They afford an opportunity to examine the prevalence of disability in adults of working age and to estimate the proportion of disability attributable to these two different dimensions of health. The prevalence estimates derived from these analyses provide an alternative view from that presented by other surveys, because they do not require respondents to report themselves disabled.

### Methods

This study examined responses to these two questions (see box) in the Oxford Healthy Life Survey, which included the complete SF-36 together with a range of other health related questions.<sup>5</sup>

These data were used to derive two categorical variables for both questions. The first categorised all those who responded positively to any of the three questions in the emotional health question or any of the four in the physical health dimension as "disabled". The second categorised those who responded yes to all four components of the physical health question or all three of the emotional health questions as disabled. Analyses were duplicated for both variables. Apart from a difference in prevalence rates, results for both analy-

#### KEY POINTS

- Emotional health problems are a more important cause of work related disability than physical health problems.
- Their importance is underestimated in routine needs assessment exercises because people disabled by emotional health problems are much less likely to consult a doctor or to report that they have a chronic illness.
- Lack of understanding of what might be done by the health service to prevent emotional health problems may be evidence of lack of investment in research rather than evidence of an intrinsically insoluble problem.

ses were very similar. Most of the analyses presented in this paper are based on the first categorisation (responded yes to any of the questions).

The questionnaire included the general household survey question 6 "do you have any long-standing illness disability or infirmity, that has troubled you over time or is likely to affect you over a period in the future?" and a series of questions on use of health services (general practitioner consultations, outpatient visits, and inpatient episodes).

The survey was carried out in 1991 on a random sample of 14 000, 18–64 year olds living in the old Oxford region. Names and addresses were selected from Family Health Service Authorities' databases of people registered with general practitioners in the four counties of Northamptonshire, Berkshire, Buckinghamshire, and Oxfordshire. The

Table 1 Prevalence of physical and emotional health problems affecting work or other regular daily activity in the last four weeks

	Respondents answering yes to:					
	All questions on dimension			Any question on dimension		
	%	95% confidence intervals	Number	%	95% confidence intervals	Number
Work affected by:						
Physical health problems alone	4.7	(4.3, 5.1)	440	10.5	(9.8, 11.1)	976
Emotional health problems alone	5.6	(5.2, 6.2)	530	14.5	(13.8, 15.2)	1354
Physical and emotional health problems	2.4	(2.1, 2.8)	228	12.6	(11.9, 13.3)	1175
Emotional health problems as % of all problems	56.2			54.0		
People suffering from emotional health problems alone as a % of all people suffering health effects on work	44.2			38.6		
Work not affected by health problems	87.2	(86.5, 87.8)	8136	62.4	(61.4, 63.4)	5829
Total	100		9334	100		9334

Table 2 Prevalence of physical and emotional health problems affecting work or other regular daily activity in the last four weeks

	Respondents answering yes to any question on dimension					
	Men			Women		
	%	95% confidence intervals	Number	%	95% confidence intervals	Number
Work affected by:						
Physical health problems alone	9.1	(8.2, 9.0)	375	11.6	(10.7, 12.4)	595
Emotional health problems alone	12.9	(11.8, 13.9)	531	15.8	(14.8, 16.8)	814
Physical and emotional health problems	10.4	(9.5, 11.3)	429	14.3	(13.4, 15.3)	738
Work not affected by health problems	67.7	(66.2, 69.1)	2793	58.3	(56.9, 59.6)	3001
Total			4128			5148

Table 3 Chronic illness and use of services in people reporting emotional and physical health problems affecting their work or other daily activity

	Respondents answering yes to any question on dimension										
	Report chronic illness		Been to doctor in last two weeks		Been to doctor > 6 times in last year		Been to outpatients in last year		Been inpatient in last year		Total
	%	Number	%	Number	%	Number	%	Number	%	Number	
Work affected by:											
Physical health problems	48 (44.8, 51.1)	468	34 (31.0, 37)	332	24.4 (21.7, 27.1)	238	27.6 (24.6, 30.2)	267	18.4 (15.8, 20.7)	178	976
Emotional health problems	23.8 (21.5, 26.0)	322	16.2 (14.1, 18.1)	218	9.9 (8.3, 11.5)	133	13.6 (11.6, 15.3)	182	11.6 (9.9, 13.2)	157	1354
Physical and emotional health problems	48.5 (45.7, 51.4)	570	37.7 (34.6, 40.1)	439	28.2 (25.5, 30.8)	330	29 (26.3, 31.4)	339	20.3 (17.8, 22.4)	236	1175
Work not affected by health problems	20 (18.9, 21.0)	1164	12.2 (11.3, 12.9)	705	7.4 (6.7, 8.0)	428	9.6 (8.9, 10.4)	562	10.6 (9.3, 10.8)	584	5829

95% confidence intervals shown in parentheses.

response rate to the survey was 72% (n=9332) after two reminders. The responses were slightly higher among women (women: 77%, men: 66%) and older age groups (18–24: 67% v 55–64: 77%). The data were analysed using SPSS and the statistical significance of results was assessed using confidence intervals for proportions.

### Results

Table 1 shows the prevalence of emotional and physical health problems based on the two different variables; the first based on people responding positively to all parts of the question, the second those responding positively to any part of the question. For both variables emotional health problems were more prevalent than physical ones. As expected the prevalence rate was greater when based on any positive response than it was when based on all positive responses.

The period prevalence of any health problems affecting work was high. Thirty eight per cent of the population reported one or more detrimental effects of their health state on their performance. A third of those reporting a health effect on work reported both a physical and an emotional problem. Thirty nine per cent reported an emotional health problem alone. Women were more likely than men to report both types of health problem (table 2).

People reporting emotional health problems alone were half as likely as those reporting physical health problems to report that they had a longstanding illness, disability or infirmity (23.8% v 48.0%). They were also much less likely to have made use of a variety of different health services (table 3). Use of services by people with emotional health problems was only slightly greater than that of people who reported no health problems interfering with their work over the last four weeks. This group were also only slightly more likely to report chronic illness than those with no health problems. In contrast people reporting both physical and emotional health problems had rates which were very close to those of people with physical health problems alone.

### Discussion

If interference with work or daily activities is regarded as a valid measure of disability in adults of 18–64 years the results of this survey suggest that emotional problems are a more

important cause of disability than all physical health problems combined. This conclusion is based on the assumption that the two questions are identifying an equivalent level of disability. Although they are very similar, the fact that the physical health question has four parts and the emotional health question three could invalidate this assumption. The reduced number of parts to the emotional health question might be expected to reduce the number of people able to respond positively to any part and increase the number able to respond positively to all parts relative to the number responding to the physical health questions. If this had happened we should expect to see a higher value for emotional health problems as a proportion of all health problems in the analysis based on positive responses to all questions than in the analysis based on positive responses to any questions. The proportions we observed were in fact very similar (53.2 v 54.0) suggesting that the assumption we made was valid.

The fact that less than half of those reporting a physical health problem interfering with their work also reported a chronic illness may seem surprising. However as the SF-36 question related only to the last four weeks people suffering an acute illness (influenza or an injury) that interfered with their work would not be expected to report a chronic illness. In the same way people suffering a minor life event whose work had been affected by self limiting emotional distress would not be expected to report chronic mental illness.

The GP morbidity survey<sup>7</sup> reports that 9.3% of patients consulting a GP do so for “mental disorder”. In our study those disabled by emotional health problems were much less likely than those reporting physical health problems to have consulted their GP. This could explain why NHS consultation rates for mental disorder are low relative to consultation rates for physical health problems, and why they might underestimate the true extent of disability resulting from emotional health problems.

Reports from the Department of Social Security show that mental illness accounts for 19% of days of certified work incapacity.<sup>8</sup> In this study 38.6% of those reporting health effects on work attributed these to emotional health problems alone. The health effects we report are “interference with work”, which may not follow the same pattern as “days off work”. Employees may be more reluctant to take time

off work for emotional problems than physical ones. It is also possible that sickness absence records underestimate the extent of the problem of mental ill health, because both patients and their doctors avoid, wherever possible, putting mental illness as a cause of absence on certificates that are sent to employers.

Psychiatric morbidity is known to be common,<sup>9</sup> but its importance in public health terms is underplayed on the ground that it does not really matter as much as physical health problems. This study suggests that it probably matters more. If the results of these analyses are confirmed in other studies, economic arguments alone should determine that emotional health needs take a higher priority in public health programmes than they currently receive.

Some of the potentially promising interventions in mental health promotion<sup>10</sup> could be argued to be the responsibility of "social" or "educational" rather than "health" services. However the impact of emotional health problems on the health service is great. Consultations for mental health problems, although not according to the results of this study commensurate with the size of the problem, consume a substantial proportion of NHS resources. Many of the common physical health problems, back pain, migraine, irritable bowel, peptic ulcer are all recognised to have a "psychosocial" element to their aetiology and the adoption and maintenance of the healthy lifestyles that could prevent a substantial proportion of heart disease and cancer is dependent on emotional well being.

The evidence that there are interventions that can improve emotional well being is mounting (Tilford S, Delaney F, Vogels M. Review of the effectiveness of mental health promotion interventions. Final Report produced for the CDR York and HEA London, Faculty of Health and Social Care, Leeds Metropolitan University, December 1995) but none of it has reached the level where it can compete with that available for the more traditional areas of medical practice. Lack of understanding of what could be done to resolve this

problem could however be a function of lack of investment in research rather than evidence of an intrinsically insoluble problem. Research funds have traditionally been allocated to life threatening and acute diseases rather than to the most pressing public health problems. Perhaps now is the time to begin allocating funds to this problem in proportion to its size.

This study suggests that emotional health problems are a more important cause of disability in adults of working age than all physical health problems combined. It explains why their importance is underestimated in health needs assessment exercises that rely on mortality data or use of services. It presents a different picture from data provided by other disability surveys. Because the data on which it is based are not dependent on subjects reporting that they are disabled, it may present the more accurate picture. It suggests that research into the causes, prevention, and management of emotional health problems should be a priority for national health services in the western world.

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