

## **Depression, Burnout and Effort-Reward Imbalance among Psychiatrists**

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Numerous studies have shown that physicians have a high risk of developing depression or burnout syndrome [1-6]. In our own pilot study on 829 psychiatrists in Germany, we found that 44.6% of the sample had suffered from a depressive episode [7].

Burnout is characterised by three dimensions: emotional exhaustion, an indifferent or cynical attitude towards clients (depersonalisation) and reduced personal accomplishment [8].

Ramirez and colleagues and Taylor and colleagues found that emotional exhaustion among British doctors increased from 32% in 1994 to 41% in 2002 [5, 9].

Maslach and Jackson [8] assume that the development of burnout is due mainly to adverse workplace conditions and the organisational structure. This dimension has been described by Siegrist as caused by a negative Effort-Reward Imbalance reflecting a disproportion between effort and reward (money, esteem, career opportunities) plus overcommitment (an excessive work-related commitment) at work [10].

Data gained from smaller samples indicate that psychiatrists and psychotherapists are at special risk of developing psychological problems [11-14]. In our cross-sectional study we examined the mental health of psychiatrists and psychotherapists in a larger German sample focusing on depression, burnout and effort-reward imbalance.

At the annual congress of the German Association of Psychiatry, Psychotherapy and Nervous Diseases (DGPPN) in 2006 we distributed 2430 questionnaires (return rate 51.8%). 1089 questionnaires of 570 males (52%) and 519 females (48%) formed the final sample. The mean age was 45.4 years (SD= 8.5, range 26-69 years). The questionnaire contained questions on

personal status, work situation, and medication intake. The following self-rating scales were included: Beck Depression Inventory/ BDI, Maslach Burnout Inventory-D/ MBI and Effort-Reward Imbalance Questionnaire/ ERI [8, 15-18] The study fulfilled the guidelines of the Ethic Committee of the University of Ulm, and all participants gave informed consent.

**Depression:** On the BDI, 868 of 1089 (79.7%) scored  $< 11$  indicating little or no current depression, 159 (14.6%) scored  $\geq 11$  and  $< 18$  points, suggesting a mild depression, and 62 (5.7%) scored  $\geq 18$  points indicating at least moderate depression.

450 of 1081 (41.6%) Psychiatrists indicated they had at least suffered one depressive episode according to the ICD-10 criteria. 152 of 472 (32.2) reported a depression diagnosed by a specialist. 23 of 1082 (2.1) had attempted suicide.

**Psychotherapy and Medication:** At the time of the study 46 of 1086 (4.2%) were undergoing psychotherapy, and 324 of 1089 (29.7%) had completed psychotherapeutic treatments beyond the mandatory psychotherapy sessions in training for psychiatry. Of the 1077 who replied, 13.3% took at least one psychotropic or analgesic medication regularly at the time of the study: 63 (5.9%) antidepressants, 27 (2.5%) sedatives, and 74 (6.9%) analgesics.

**Burnout:** An emotional exhaustion score of  $> 4.5$  was reached by 131 of 1089 (12.0%) of the sample, but only 8 (0.7%) scored  $> 4.5$  for depersonalisation, and only 2 (0.2%) scored  $< 2.5$  for personal accomplishment.

**Effort and Reward Imbalance:** A negative effort-reward imbalance ( $>1$ ) was shown by 163 of 841 (19.3%) in the sample where as 114 (10.5%) of the total sample ( $n=1087$ ) displayed evidence of overcommitment.

This is the first major study carried out on burnout, depressive symptoms and effort-reward imbalance among German psychiatrists.

One substantial finding of the study is the high self-rated life time prevalence of depression of 41.6% among these psychiatrists. Also noteworthy is that a fifth (20.3%) of the sample showed evidence for acute depressive symptoms. When compared with data from the literature reporting a 4-week prevalence of 5.6% and a life-time prevalence of 17.1% for

depression in the German population, our findings appear unexpected high [19]. One possible interpretation is that psychiatrists are subject to more strain than the normal population (e.g., the handling of suicidal or aggressive patients). On the other hand psychiatrists are more sensible in the identification of depressive symptoms, are overall more alert to own mental symptoms and probably have a higher ability for introspection. Beyond this, it is possible that it's still difficult for the general population with respect to consulting a doctor about a mental problem. Further, the return rate was only 51.8%, so this might be also a biasing factor since perhaps "healthy visitors" were less interested in participating in the study or depressed subjects decided not to return the questionnaire. But, intuitively one would assume the visitors of a congress are healthier than those who stay at home. Another possible bias regarding acute depressive symptoms is that the diagnosis was not established objectively but based on the BDI.

The psychiatrists' heightened perception of depressive symptoms might also be reflected in their high medication intake, as 13.3% of the sample took at least one psychotropic or analgesic medication regularly at the time of the survey. In a study of Balon, 15.7% of psychiatrists ( $n=567$ ) treated themselves for depression in the past and 22.2% thought that they should treat themselves for depression [20]. According to Ohayon, 6.4% of the German, Italian, French and British population take psychotropic medication and 1% take antidepressants [21]. This could be the result of higher rates of depression in psychiatrists, the availability of medication for physicians or a better acceptance of psychotropic medication.

Unfortunately the figures for rates of burnout cannot be set in direct comparison to the German population as norms do not exist. Nevertheless, one may wonder what influence emotional exhaustion may have on empathy, one of the psychiatrist's core tools in creating an effective doctor-patient relationship.

An effort-reward imbalance was found in 19.3% of psychiatrists. In comparison an effort-reward imbalance of 16.3% was found by Larisch and colleagues in a cross-sectional investigation of middle-aged German public transport employees ( $n=316$ ) [22].

A major limitation of our study is its basis on an opportunity sample collected at a professional congress and its cross-sectional nature, and thus, the results are not generalizable to other collectives. Further longitudinal studies that compare e.g. psychiatrists with physicians of other medical specialisations are necessary to determine the specificity of the

obtained results and to analyze how stress, due to a specific work, can cause burnout and depression.

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### **Authors contributions:**

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