

General psychological distress and personality traits in physically ill patients

Krzysztof Małyszczak, Angelika Pyszel, Karolina Lindner,
Tomasz Wróbel, Grzegorz Mazur, Andrzej Kiejna,
Kazimierz Kuliczkowski, Ryszard Andrzejak

Summary

Aim: The purpose of the study was to assess severity of psychological distress in patients suffering from internal illnesses, and to define a correlation between distress and personality traits.

Method: 45 patients with leukaemia or lymphoma, 46 with other internal diseases and 45 healthy persons were assessed with the General Health Questionnaire (GHQ–30) and Eysenck Personality Questionnaire (EPQ-R).

Results: The GHQ ratings indicate noticeable psychological distress in a half of the patients in both groups (threshold 7/8). About 1/3rd of them were located above the threshold of a psychiatric disorder (12/13). In the control group these percentages were far minor, accordingly 22% and 7%. There were no statistically significant differences in mean scores of neuroticism, extraversion and psychoticism. Controls have a slightly lower mean score of lying than patients. Neuroticism ratings correlated with the GHQ in all the groups (0.51 haematological, 0.58 other internal, 0.48 controls). Other EPQ-R scales did not correlate.

Conclusion: About half of inpatients suffered from internal diseases express noticeable psychological distress. Persons with a higher neuroticism score are more predisposed to developing psychological distress under stress caused by somatic illnesses.

psychological distress / personality traits / internal illnesses

INTRODUCTION

Psychological distress in patients with somatic illnesses is due to biological and psychological factors. Biological factors which directly influence the central nervous system are a somatic illness

and drugs. Some of the psychological factors are: the awareness of being sick and the life consequences of the illness – both causing psychological distress that leads to anxiety and depression. Haematological treatment is associated with particularly excessive distress due to somatic symptoms and severe life consequences of the illness. Consequently, it could be the cause of depressive and anxiety states in vulnerable individuals. It was demonstrated that the awareness of malignancy diagnosis increases the incidence rate of psychiatric states [1, 2, 3]. About half of the haematological patients are diagnosed as having co-existing psychiatric disorders [4, 5, 6, 7, 8]. The most common ones are: adjustment disorders, depression and anxiety disorders. Some patients may also develop organic psychiatric states, par-

Krzysztof Małyszczak¹, Angelika Pyszel³, Karolina Lindner²,
Tomasz Wróbel², Grzegorz Mazur², Andrzej Kiejna¹, Kazimierz
Kuliczkowski², Ryszard Andrzejak³: ¹ Department and Clinic of
Psychiatry, Wrocław Medical University; ² Department of Haematology
and Oncology, Wrocław Medical University; ³ Department of Internal
Medicine, Occupational Diseases and Hypertension, Wrocław Medi-
cal University; Correspondence address: Krzysztof Małyszczak, Depart-
ment and Clinic of Psychiatry, Wrocław Medical University, 10 Pasteura
St., 50–367 Wrocław, Poland; E-mail: durlikk@wp.pl; The article was
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Table 1. Basic demographic parameters of the subjects.

	Haematological malignancies	Other internal diseases	Control	Total
Number of subjects (men/women)	45 (25/20)	46 (20/26)	45 (23/22)	136 (68/68)
Median age (min, max)	56 (23, 73)	54 (21, 88)	53 (20, 82)	54 (20, 88)

ticularly delirium and dementia. Psychiatric disorders associated with malignancies shorten life expectancy, decrease tolerance of adverse effects of medication and compliance with doctor's suggestions [9,10]. Therefore, the treatment of psychiatric disorders should be conceived as an important part of malignancy management.

The purpose of the study was to assess severity of psychological distress and to define its correlation with the dimensions of Eysenck Personality Questionnaire (EPQ-R) in patients with haematological malignancies, other internal diseases, and controls.

SUBJECTS AND METHODS

136 subjects were included in the study: 45 patients with haematological malignancies (myeloma multiplex- 9, lymphoma- 14, acute leukaemia- 22), 46 patients treated due to other, non-malignant internal diseases (hypertension, circulatory failure, angina pectoris, coronary disease, phlebothrombosis, bronchopneumonia, chronic obstructive pulmonary disease (COPD), pneumoconiosis, chronic lung embolism, adult-type diabetes mellitus, hyperlipidaemia, nephrolithiasis, gastric ulcer disease, lead-poisoning, vibration disease, degenerative joint disease) and 45 healthy persons as controls. All patients were assessed at the Medical University in Wrocław. The haematological patients were treated in the Department of Haematology. Patients with other in-

Table 2. Numbers and percentage of subjects over thresholds of 7 and 12 points GHQ.

	Haematological malignancies	Other internal diseases	Control
Over 7	24 (53%)	24 (52%)	10 (22%)
Over 12	16 (36%)	15 (33%)	3 (7%)

ternal diseases were treated in the Department of Internal Medicine, Occupational Diseases and Hypertension. The control group came from the general population. Basic demographic parameters of the subjects are presented in table 1.

Personality traits (psychoticism, neuroticism, extraversion and lying) were assessed with the Eysenck Personality Questionnaire (EPQ) [11]. General psychological distress was assessed with the General Health Questionnaire (GHQ-30) [12, 13].

The Statistica for Windows version 5.0 was used for the statistical analysis, with the application of Student t test and Pearson's moment correlation.

RESULTS

The basic demographic parameters of the subjects are shown in table 1. The ratings of GHQ are shown on figure 1. Number and percentage of subjects exceeded the threshold of 7 and 12 points GHQ are shown in table 3. Differen-

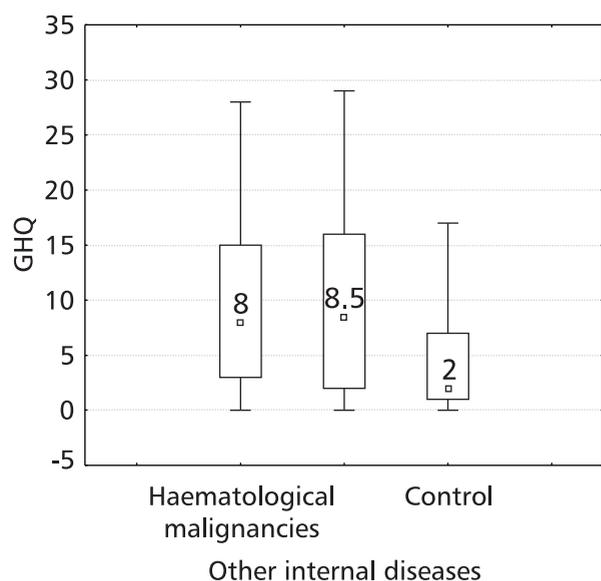
Table 3. Mean values of neuroticism, extraversion, psychoticism and lie in groups.

	Haematological malignancies	Other internal diseases	Control	statistic F value p value
neuroticism	11.29	12.61	10.02	F(2, 133)=2.16, p=0.12
extraversion	14.13	12.98	14.40	F(2, 133)=0.617, p=0.54
psychoticism	7.60	7.28	8.44	F(2, 133)=0.24, p=0.79
lie	12.60	12.67	10.24	F(2, 133)=4.26, p=0.016

Table 4. Pearson product moment correlations between the GHQ ratings and the EPQ-R scales.

	Haematological malignancies	Other internal diseases	Control
neuroticism	0.51*	0.58*	0.48*
extraversion	-0.15	-0.24	0.15
psychoticism	0.04	0.20	0.04
lie	-0.08	-0.19	-0.02

* $p < 0.05$



□ Median
 □ 25%–75%
 I Min–Max

Fig. 1. Ratings of the GHQ

es among groups in ratings of personality traits were small. In spite of lying, all differences of means were not statistically significant. Controls had slightly lower mean values of lying than the patients (table 4). Ratings of the GHQ were correlated with neuroticism. Other scales of the EPQ-R were not correlated to the ratings of psychological distress.

DISCUSSION

The GHQ ratings exceeded the threshold 7/8 in about half of the patients in both groups: those

haematological and those with other diseases; and in only 22% of the controls. About 1/3rd of the patients and only 7% of controls were located above the threshold of value 12/13, which is an approximate discriminative value of anxiety disorders and depression for the Polish population of general physician attendees [13]. The analysis of the GHQ scores distribution leads to the conclusion that significant psychological distress affected approximately 50 percent of the patients, while psychiatric disorders affected about 1/3rd of them. This result is in agreement with the results of other researches presented in the review by Jabłoński et al. (25–33 percent) [6]. A similar result was presented by Ford et al., who used the GHQ questionnaire in a group of ambulatory patients with malignancies [14]. Harter et al. discovered an increased GHQ value in 44 – 49 percent of the patients treated and rehabilitated due to cancer (using the GHQ-12 questionnaire) [5].

The GHQ ratings reflect the present affective state. Subjects with higher scores of neuroticism appeared to be more prone to psychological distress under a stress connected with an illness and its treatment. The mean values of neuroticism scores were similar in all the three groups. This means that the fact of being ill did not have a significant effect on the neuroticism scores as the affects of the present emotional state. We did not measure neuroticism rates before the illness, so its rates are influenced by depressive symptoms. Neuroticism in depressive patients is higher during a depressive episode than before. Ormel et al. observed that this increase reached 13% – 14% [16]. Small differences in median scores of neuroticism between patients and controls are probably attributable to this state effect. Neuroticism is found as a predictive factor of depression [17, 18]. Perhaps it is also a predictive factor of general psychological distress. Other scales of the EPQ-R were not connected with emotional distress in groups of patients as well as in controls. The subgroup of persons who are susceptible to psychological distress may be identified when high GHQ scores are present. Moreover, the identification of predisposing personality traits creates a possibility of earlier identification of patients vulnerable to depressive and anxiety disorders.

The treatment of depression and anxiety is a part of management in patients with malignan-

cies and other internal diseases. Our study indicates that psychiatric/psychotherapeutic treatment is sensible in half of the haematological patients. Moreover, psychiatric treatment and psychotherapy prolong the survival time of patients with malignancies [9]. Therefore they constitute an important part of the anti-malignancy treatment, not only an optional complementation.

Our research included not a very large number of patients. Therefore the results may be different in other groups. However, there were many projects with similar findings conducted on various populations of patients in many countries.

CONCLUSIONS

About a half of inpatients suffered from internal diseases have noticeable psychological distress. Neuroticism, but not extraversion, psychoticism and lie scores correlated with GHQ scores. Therefore, persons with higher neuroticism, score are more vulnerable to psychological distress, and can develop it when are under stress caused by somatic illness.

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