

Hiller, W. , Rief, W. (1999). Psychotherapy of somatoform disorders.
In: Ono, Y., Janca, A., Asai, M., Sartorius, N. (Eds.).
Somatoform Disorders. A Worldwide Perspective , pp. 205-211.
Tokyo : Springer.

Psychotherapy of Somatoform Disorders

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Summary. Strategies for the psychotherapy of somatoform disorders have been developed during the past years mainly from cognitive-behavioral models. This article summarizes some recent findings and describes a controlled inpatient study with 251 patients from the Roseneck Center in Germany. We found significant improvements in patients with somatoform disorders concerning the severity of somatic symptoms, hypochondriacal fears, depression, dysfunctional cognitions, and psychosocial disabilities. The rationale of cognitive-behavioral treatment is outlined and some principal techniques are described. It seems essential in the future to provide effective training programs for medical and mental health specialists in order to enhance the efficacy of psychotherapeutic approaches.

Key words. Psychotherapy, Cognitive-behavioral treatment, Somatization disorder, Hypochondriasis

Introduction

The history of psychotherapy for somatoform disorders is still young. The first controlled studies were reported by Smith and colleagues, who sent information letters to general practitioners in rural areas of Arkansas (USA) and conducted short group therapies based on cognitive-behavioral principles [1]. They showed that this intervention reduced the annual medical costs for this patient group. The decrease was more than 50% for patients with somatization disorders and around 33% for patients with a less strictly defined somatization syndrome. The group intervention improved the patients' general physical and mental health status as well as their level of physical functioning. It is known from many studies that patients with somatoform disorders suffer from various psychological complaints such as depression and anxiety, and their low psychosocial functioning is frequently linked to some forms of "doctor-shopping" behavior [2]. Recent studies from other research groups have confirmed that psychotherapy is effective in a large number

of patients with multiple somatoform symptoms [3, 4] and hypochondriacal disorder [5].

One important prerequisite for conducting psychotherapy is an explanatory model for the disorder and its components. Specific interventions may be derived from the model shown in Fig. 1. It is assumed that the bodily symptoms are not due to a medical disease but to psychophysiological mechanisms (e.g., somatosensory amplification, correlates of emotional states, benign dysfunctions). These bodily changes are perceived by the person and misinterpreted as signs of a serious disease or as intolerable. Two vicious circles explain why the symptoms are further amplified and how the disorder is maintained over a long period of time. Symptom amplification may be due to an increased selective attention on bodily functioning and increased levels of autonomic arousal. Maintenance mechanisms include all kinds of avoidance and "illness behaviors" such as repeated checking of the body, increased worry about one's health, overuse of the medical system, inadequate drug consumption like long-standing use of analgesics, and withdrawal from familial, social, and occupational obligations.

Psychotherapeutic strategies should not be uniform for all mental disorders. They should be derived systematically from the specific symptoms and functional clinical characteristics which characterize a specific disorder. In the case of hypochondriasis, Warwick et al. [5] and Barsky et al. [6] were the first to develop such treatment programs taking into account the needs and expectations of this particular patient group. We expanded on these approaches to include also specific interventions for patients with multiple unexplained somatic symptoms.

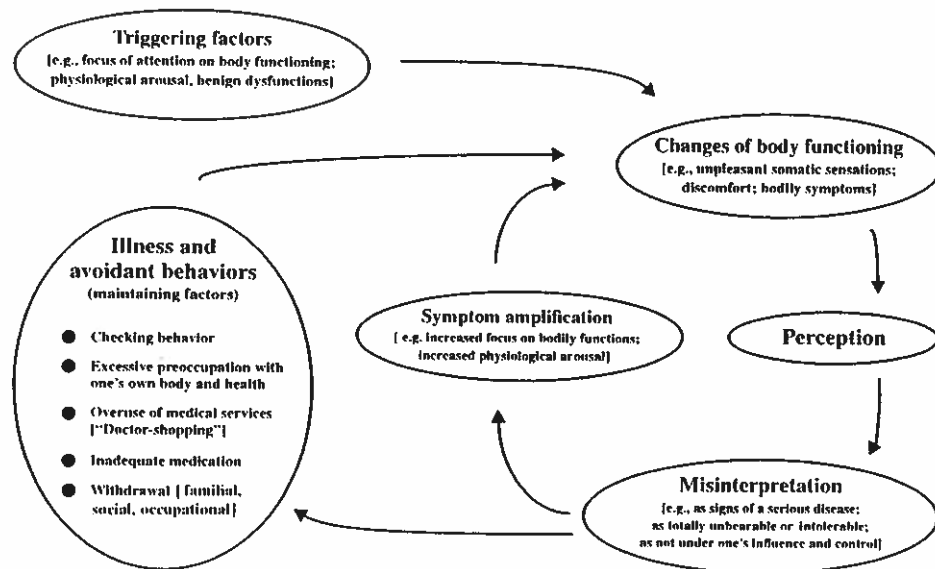


FIG. 1. A cognitive-behavioral model of somatoform disorders

In short, the following main suggestions for the psychotherapy of patients with any of the somatoform disorders (including hypochondriasis) can be regarded as a logical consequence of the model outlined above:

- an explanation of the individual patient's somatoform symptoms considering both biological and psychosocial aspects should be introduced as a more adequate alternative to a purely medical perspective;
- the patient may be encouraged to use symptom diaries in order to evaluate more closely the everyday interactions between psychological variables such as mood or stress and his physical complaints;
- practical demonstrations can enhance the patient's understanding of psychological mechanisms affecting his physical state (e.g., biofeedback, stress experiments);
- relaxation techniques can be employed to reduce high levels of autonomic arousal;
- inadequate disease convictions (e.g., "my headaches are most certainly due to a brain tumor") or conclusions (e.g., "I can't do anything on my own and without my doctor to gain some relief from my complaints") should be identified and re-attributed;
- the patient should be encouraged to give up withdrawal behavior and he should actively enhance his physical fitness;
- dysfunctional avoidance and "illness behaviors" are to be reduced.

These strategies are applied in the Roseneck Center as part of the routine treatment program for all patients presenting with a somatoform disorder. In the next sections of this article we will briefly describe a preliminary evaluation of our treatment effects.

Materials and Methods

We studied the data of 251 inpatients who had been consecutively admitted to the Roseneck Center in Prien, Germany. This is a regular tertiary care hospital as part of the general German health care system. Our treatment programs are accessible to patients of all levels of social and vocational status. The patients of this study reported to suffer from somatic or psychological problems when they were initially applying for admission. They were treated in our hospital for a mean number of 57.8 days ($SD = 16.7$). The treatment period was compared with a waiting period before admission lasting 123.7 days ($SD = 87.9$). The sample was divided up into two separate diagnostic subgroups:

(i) *Somatoform group*. 158 patients presented with a somatoform disorder according to the criteria of DSM-IV. Within this group, 53 patients were found to have the complete clinical picture of somatization disorder, while the remaining 105 fulfilled the symptom requirements of at least eight somatoform symptoms from the DSM-IV list of somatization disorder (similar to Escobar's definition of abridged somatization disorder; see also [7]). Therefore, we combined patients with full somatization disorder and the less strictly defined somatization syndrome. These 158 patients had a mean age of 46.0 years ($SD = 10.9$), and the female percentage was 67.7%.

(ii) *Control group*. The other 93 patients had mental disorders other than somatoform disorders. Most of them presented with the clinical picture of a depressive or

anxiety disorder according to DSM-IV. The mean age of this group was 45.1 years (SD = 11.8), and the female proportion was 63.4%.

The diagnostic evaluation included a thorough examination of mental disorders according to DSM-IV using the Structured Clinical Interview (SCID) as well as diagnostic checklists. We also employed a number of different self-report measures. Among these were well evaluated psychometric instruments assessing somatoform symptoms (SOMS—a list of bodily complaints as listed in either DSM-IV or ICD-10), hypochondriacal fears and convictions (Whiteley-Index), the degree of depressive symptomatology (Beck Depression Inventory), psychosocial impairments (DAQ—Dysfunctional Analysis Questionnaire), and dysfunctional cognitions related to somatoform disorders (CABAH—Cognitions About Body and Health Questionnaire). Patients completed these instruments at three points of time: at registration, admission, and discharge.

Results

A significant decrease of complaints and psychopathology was observed for all scales in the somatoform disorder group. As can be seen from Table 1, this change took place only during the phase of treatment, while the symptomatology remained practically unimproved during the waiting period. Therefore it can be concluded that the treatment had specific effects on the condition of somatoform patients and that these changes cannot be explained by the natural course of the disorder. All improvements not only reached statistical significance, but their magnitude was also in the range of clear clinical relevance. A significant change was found even for the key feature of somatoform symptom distress (SOMS). This scale was the only one not administered at the time of registration so that a comparison with the waiting period was not available.

For the control group of patients with non-somatoform disorders, the values of all measures were clearly and significantly lower than those for the somatoform patients. The differences were most evident for the somatoform symptom distress (SOMS), hypochondriasis as assessed by the Whiteley-Index, and for the CABAH scales indicating dysfunctional cognitions. For these three features it can be stated that both groups had qualitatively different levels with the somatoform patients in the pathological range and the control patients in the more or less “normal” range. In contrast, both groups had relatively high levels of depression and psychosocial impairments at registration and admission. However, patients with somatoform disorders were still significantly more pathological in these scales than control patients, indicating the enormous amount of subjective distress and psychosocial dysfunction in the particular diagnostic group of somatoform disorders.

In a second step we analyzed in more detail whether there were differences in the degree of responsiveness or non-responsiveness to our treatment program. We calculated correlation coefficients for a number of variables that were considered as potential predictors of treatment success. The change scores of psychosocial functioning (DAQ), i.e., the difference between admission and discharge, were to be predicted. We found that best predictors were (i) a catastrophizing style of thinking (e.g., self-statements like “bodily complaints are always a sign of disease”), (ii) high scores in

TABLE 1. Treatment effects in patients with somatoform disorders, and as compared with the control group

	Registration ^a	Admission ^a	Discharge ^a	Significance	
				Change in waiting period ^b	Change in treatment period ^b
<i>Somatoform disorders (n = 158)</i>					
Somatoform symptom distress (SOMS)	—	20.2 (9.6)	16.5 (9.2)	—	<i>P</i> < 0.01
Hypochondriasis (Whiteley-Index)	7.4 (3.3)	7.2 (3.3)	5.4 (3.6)	n.s.	<i>P</i> < 0.01
Depression (Beck Depression Inventory)	22.7 (10.6)	22.6 (10.4)	13.2 (9.4)	n.s.	<i>P</i> < 0.01
Dysfunctional cognitions (CABAH)	56.3 (21.1)	57.6 (20.9)	50.2 (21.3)	n.s.	<i>P</i> < 0.01
Psychosocial impairments (DAQ)	65.7 (14.0)	66.0 (14.9)	54.6 (16.8)	n.s.	<i>P</i> < 0.01
<i>Other mental disorders (n = 93)</i>					
Somatoform symptom distress (SOMS)	—	12.5 (7.1)	9.1 (7.3)	—	<i>P</i> < 0.01
Hypochondriasis (Whiteley-Index)	4.6 (3.0)	4.4 (3.2)	3.2 (3.0)	n.s.	<i>P</i> < 0.01
Depression (Beck Depression Inventory)	19.7 (10.4)	18.1 (10.5)	8.7 (8.6)	<i>P</i> < 0.05	<i>P</i> < 0.01
Dysfunctional cognitions (CABAH)	44.9 (15.9)	44.3 (15.7)	38.6 (17.3)	n.s.	<i>P</i> < 0.01
Psychosocial impairments (DAQ)	60.4 (13.9)	59.0 (14.3)	47.5 (16.0)	n.s.	<i>P</i> < 0.01

^aMean (SD).

^b*t*-test with repeated measures.

^cpairwise *t*-test comparisons.

n.s., not significant.

the Beck Depression Inventory, and (iii) the presence of an additional major depression according to DSM-IV. The correlation coefficients for these three main predictors were 0.26, 0.23 and 0.22, respectively (all $P < 0.01$). In other words, the more patients showed a catastrophizing thinking (at admission), the more they were depressed, and in case of the presence of a major depression, the more likely they were to improve unusually well from our treatment program.

Less powerful predictors at the $P < 0.05$ level were the presence of an additional panic disorder ($r = 0.20$), agoraphobia (0.18), cognitions indicating a high intolerance of bodily discomfort (0.17), and a tendency towards the self-perception as being bodily weak and disabled (0.16). Other variables such as health behavior, hypochondriacal fears and convictions, specific and social phobia, age, and gender were not able to predict the magnitude of treatment success (all $P > 0.05$).

Discussion

Different approaches have been suggested to treat patients with somatoform disorders. It will certainly be sufficient in many cases that the general practitioner or family physician, if understanding the underlying mechanisms of this disorder, give support to their patients by explaining the (not life-threatening) nature of the somatic symptoms, and by refraining from unnecessary medical examinations and treatments. In more severe cases, however, such strategies of "clinical management" within the frames of general medicine may fall short and intense psychotherapy is then needed. Although this field has been neglected for many years [8], the time has come that systematic and differentiated approaches be developed and evaluated through empirical trials.

The controlled study described in this article shows that somatic symptoms and associated psychopathology improved during an intense treatment program lasting several weeks. Since the Roseneck Center is a highly specialized facility of the German tertiary care system, these results cannot be generalized to other settings. However, the patients treated in our study are likely to belong to the most severely disturbed subgroup of somatoform disorders with high levels of comorbidity and chronicity. We feel encouraged that our patients improved despite this selection of severe cases. To our surprise, the presence of an additional depressive or anxiety disorder was even a positive predictor of therapy success. One interpretation of this finding could be that these patients with comorbidity were more pathological and thus more likely to improve (i.e., regression towards the mean). On the other hand, these results demonstrate that even the most severe patients with somatoform disorders are not "untreatable" if systematic cognitive-behavioral strategies are applied.

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