The prevalence of somatoform disorders among internal medical inpatients

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Abstract

Objective: To find the prevalence of somatoform disorders (SDs) among internal medical inpatients and to study the comorbidity with other psychiatric disorders. **Methods:** Of 392 eligible consecutive medical inpatients, 294 (75%) accepted to participate and, using a two-phase design, were assessed for ICD and DSM-IV somatoform diagnoses and for ICD-10 psychiatric diagnoses. **Results:** A total of 18.1% (95% CI: 12.8–24.9%) of the patients fulfilled the diagnostic criteria for an ICD-10 disorder, and 20.2% (95% CI:14.7–27.2%) for a DSM-IV SD. The prevalence of specified disorders revealed marked differences between the two diagnostic systems, e.g., concerning somatisation disorder (SD), which was more prevalent in the ICD-10 (5%) than in the DSM-IV (1.5%) equivalent. Quite the contrary was found in undifferentiated SD (0.7% in ICD-10 and 10% in DSM-IV). According to ICD-10 criteria, 3.5% had hypochondriasis, 2.6% a dissociative disorder, 3.2% a somatoform autonomic dysfunction, 1.5% had neurasthenia or persistent somatoform pain disorder, and 5% had an SD, unspecified. SDs were more prevalent among younger females. Thirty-six percent of the patients with SDs also had another psychiatric disorder, 11% a depression, and 25% an anxiety disorder. The physicians detected about 1/3 of the cases. **Conclusion:** Somatoform disorders were prevalent among internal medical inpatients especially among younger women.
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Introduction

Patients presenting functional somatic symptoms (i.e., medically unexplained symptoms) are common in all types of medical settings [1–4]. In general medicine, these patients are diagnosed using a broad spectrum of labels depending on the specialty or beliefs of the treating physician [5]. In research, the term somatisation has been widely used on these patients, but somatisation has been defined in various ways. Only a few studies have used the DSM-IV and ICD-10 (or earlier) criteria for somatoform disorders (SDs), and these studies have investigated a few diagnostic categories only, mostly the somatisation disorder and the hypochondriasis diagnosis. One of the reasons for this is that the commonly used standardized diagnostic interviews, e.g., the CIDI [6], explore only a few of the somatoform diagnoses.

To our knowledge, no studies exist on the prevalence of SDs among internal medical inpatients according to ICD-10 or DSM-IV criteria.

The aims of this study were to find the prevalence of somatoform and related disorders among consecutively admitted internal medical inpatients and their comorbidity with other psychiatric disorders. In a series of articles other aspects of this patient sample have been described and linked to mental and SDs, such as use of health services [7,8], complexity of inpatient care [9], and health perception [8,10].

Method

For general information on the study sample, design, patients and their diagnoses, see Ref. [11].

The study population consisted of consecutive patients aged 18 or older admitted as inpatients to the Department of Internal Medicine, Silkeborg Central Hospital, Silkeborg,

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Denmark, during a 3-month inclusion period in 1997. The department provides all hospital-based internal medical services for the general population in Silkeborg town and the catchment area, a total of approximately 90,000 inhabitants. For further details on the patients and their medical diagnoses, see Ref. [11]. In total, 547 patients, of which 83% were acute emergencies, were admitted during the inclusion period (Fig. 1).

Exclusion criteria (Fig. 1) are the following: non-Scandinavian origin ($n=4$), too severe physical illness to be interviewed ($n=41$), deafness ($n=5$), disorientation ($n=21$), expressive problems, e.g., aphasia ($n=13$), or unconsciousness ($n=7$). In addition, 58 patients were discharged, 6 patients died before they could be interviewed and 98 (25% of the 392 who were eligible) patients declined the invitation to participate. Hence, a total of 294 patients were included.

The patients who died before inclusion or were excluded according to predefined criteria ($n=97$), the patients who refused to participate ($n=98$), and the patients who were discharged before they were contacted by a research worker ($n=58$) were compared to the included patients on age and gender, and on information from the Danish national patient registers regarding (a) number of nonpsychiatric admissions since 1987, (b) total health insurance costs since 1993, and (c) whether the patient has been in contact with hospital psychiatry (since 1987) or insurance-paid mental health professionals (since 1993). The group excluded according to predefined criteria, and the group of patients who refused to participate were significantly older (median age 75.3 and

76.7 years, respectively) than the included patients (median age 61.4 years; $P_{\text{excluded}} < .001$ and $P_{\text{refusers}} < .001$, Mann–Whitney U tests). There were no statistically significant differences between the included patients and the three other groups as to use of health services (Mann–Whitney U tests), gender, or psychiatric history (χ^2 tests) (for details see Ref. [11]).

Procedure

A two-phase design was used. The first phase, an interview at the time of admission made by a research worker, included an eight-item version of the Symptom Check List (SCL-8) [12], detecting anxiety and depression. Furthermore, the seven-item Whiteley index was used, which measures illness worrying and conviction and which has been shown to detect somatization [13]. The scales were dichotomised, and patients with a score of two or more on the SCL-8D and/or three or more on the Whiteley-7 were considered high scorers. In the second phase, a random sample of one third of all patients was then selected for psychiatric interviews, followed by adding all high scorers from the two thirds not already chosen. Thus, a stratified subsample was produced, consisting of all high scorers and approximately one third of the low scorers. The interviews were made at discharge by means of the Schedules for Clinical Assessment in Neuropsychiatry (SCAN), version 2.1 [14]. Eleven patients declined the invitation to participate in the interview, and two died before an interview could be arranged. Thus, 157 patients were interviewed with the SCAN.

The two SCAN interviewers (one psychiatrist and one MD with psychiatric training during residency) were certified from the WHO centre in Aarhus and were blinded to the patients' answers from the interviews at admission. The interrater agreement was high; that is, there was agreement on 16 of 17 patients ($\kappa = .88$).

At the admission and discharge, the medical doctors responsible for the treatment of each patient were asked to give their ratings on whether the patients' symptoms were functional and whether they were preoccupied with their symptoms.

Data analysis

ICD-10 and DSM-IV diagnoses for SDs concerning the "present state" (i.e., a current illness) were provided from SCAN interviews by a computer programme. Some subsequent revision of the output was necessary.

Data from the second phase of the two-phase design were analysed using weights inversely proportional to the sampling probabilities [15,16]. Prevalence estimates and approximate confidence intervals were calculated by weighted logistic regression. The same method was used to estimate the associations between psychiatric disorders and other variables. In a few analyses we applied other
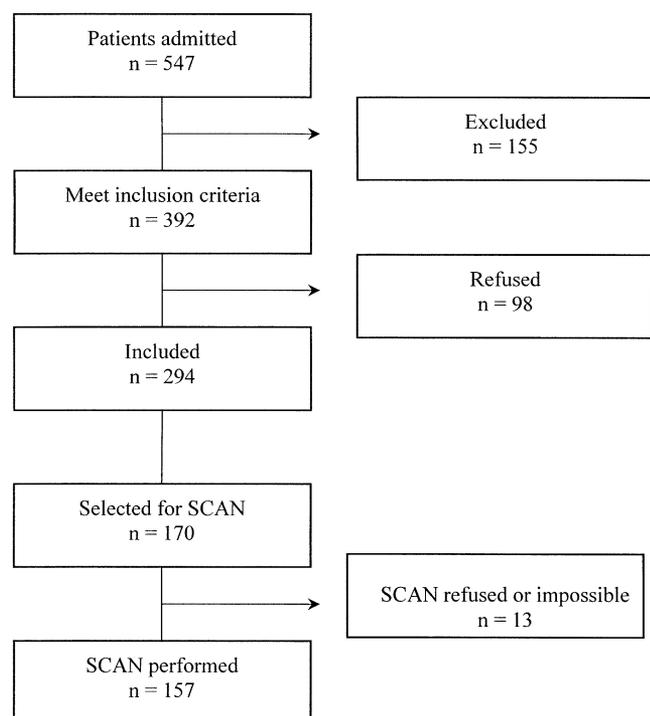

Fig. 1. Inclusion of patients.