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Collaborative stepped care for somatoform disorders: A pre–post-intervention study in primary care☆

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ABSTRACT

Objective: The successful management of somatoform disorders in primary care is often limited due to low diagnostic accuracy, delayed referral to psychotherapy, and unstructured overuse of health care. This study aimed to investigate the feasibility of establishing a collaborative stepped health care network for somatoform disorders, and its impact on the diagnostic process and treatment recommendations in primary care.
Method: The Network for Somatoform and Functional Disorders (*Sofu-Net*) was established to connect 41 primary care physicians (PCP), 35 psychotherapists, and 8 mental health clinics. To evaluate *Sofu-Net*, primary care patients at high risk of having a somatoform disorder were identified using the Patient Health Questionnaire, and were assessed in detail at the patient and PCP level. Discussion of psychosocial distress in the consultations, diagnostic detection rates and treatment recommendations were compared before and 12 months after establishing the network.
Results: Out of the pre- (n = 1645) and 12-months-post *Sofu-Net* patient samples (n = 1756), 267 (16.2%) and 269 (15.3%) high-risk patients were identified. From these, 156 and 123 patients were interviewed and information was assessed from their PCP. Twelve months after *Sofu-Net* establishment, high-risk patients more frequently discussed psychosocial distress with their PCP (63.3% vs. 79.2%, $p < .001$). PCPs prescribed more antidepressants (3.8% vs. 25.2%, $p < .001$) and less benzodiazepines (21.8% vs. 6.5%, $p < .001$). *Sofu-Net* did not affect PCP's diagnostic detection rates or recommendation to initiate psychotherapy.
Conclusion: The study results indicate feasibility of an interdisciplinary network for somatoform disorders. Collaborative care networks for somatoform disorders have the potential to improve doctor–patient-communication and prescription behavior.

Introduction

Somatic symptoms are very common in the general population and are most frequently the reason why patients visit their doctor [1,2]. Somatoform disorders are characterized by persistent or recurrent disabling bodily complaints without a sufficient organic explanation. These disorders are prevalent in 3.5% to 10% of the general population [3], and in up to 20% of patients in primary care settings [4,5]. Medically unexplained symptoms and somatoform disorders substantially reduce patients' well-being and quality of life [1,6]. Moreover, similarly to depressive and anxiety disorders, somatoform disorders are associated with high health care costs caused by frequent consultations, repeated diagnostic procedures and work incapacity [7,8].

Several important barriers limit the adequate management of somatoform disorders. First, somatoform disorders remain chronically underdiagnosed [9]. Although patients often provide cues to discuss their psychological needs, primary care physicians (PCP) and patients rarely directly discuss psychosocial distress [10]. Critically, such discussion is a key determinant of the recognition of somatoform disorders in primary care. Thus, somatoform disorders are under-recognized and the detection is often limited to very severe cases [11,12]. The lack of diagnosis could be one explanation for the large intervals between onset and treatment of 6 to 16 years [13,14]. Other reasons might include the physicians' conservative use of this diagnostic category to avoid stigmatizing patients and overlooking somatic causes, the problematic operationalization of the diagnosis itself, and the patients' reluctance to accept a psychological symptom attribution [15–18].

Second, although psychotherapy effectively reduces disability and improves functioning [19–21], only half the patients with somatoform disorders seek any help for their mental problems, and far less, about 11% of patients with current mental disorders have consulted a mental health specialist in the past 12 months [22]. Many patients are neither

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referred to psychotherapy by their PCPs, nor do they initiate psychotherapy themselves. The shortage of available psychotherapists and long waiting lists add to the problem [22]. Collaborative psychosomatic consultations effectively improve functioning and reduce health care use, but are rarely implemented [23].

Third, due to the ambiguous nature of somatic symptoms and—in many cases—a predominant somatic understanding of illness, patients often visit many medical specialists in search of an underlying somatic cause of their complaints. Together, these barriers result in unnecessary and uncoordinated somatic diagnostic procedures, a lack of adequate treatment, and ultimately, the chronic course of somatoform disorders [24].

According to both international and German guidelines, somatoform disorders should be managed within a collaborative stepped care approach [2,25,26]. The PCP should serve as the first contact person as well as the coordinator of adequate diagnostic and treatment procedures. With increasing symptom severity, psychotherapy should be part of the treatment plan. In severe or pain dominant cases, additional time-limited and low-dose antidepressant medication (but no benzodiazepines) is recommended. While there is scarce but promising evidence that collaborative stepped care might improve the management of somatoform disorders [27,49], these approaches have rarely been implemented and evaluated in practice. This is in contrast to other mental disorders such as depression, for which collaborative care has shown to be more effective than treatment as usual in improving outcomes [28].

To our knowledge, this is the first study that aimed to establish and evaluate a collaborative stepped health care network for somatoform disorders in primary care. The network intends to improve early diagnosis, to accelerate appropriate treatment, thereby reducing unnecessary health care utilization. Since this is the first study to implement such a network in routine primary care, the main focus of this pre–post-intervention study was feasibility [29]. The evaluation focussed on changes in two outcome domains at both the PCP and patient levels, namely (a) the diagnostic process and (b) treatment recommendations. With regard to (a) the diagnostic process, we hypothesized that the discussion of psychosocial distress between patients and PCPs increases after the establishment of the health network, and the correct diagnostic detection rate for somatoform disorders by PCPs increases. With regard to (b) treatment recommendations, we hypothesized that PCPs recommend psychotherapy more often, and prescribe medication more appropriately in terms of less benzodiazepines and more antidepressants.

Methods

Study design

With the focus on feasibility, the implementation of the Network for Somatoform and Functional Disorders (*Sofu-Net*) was evaluated in a pre–post-intervention study [29]. In a within-practice design, the study assessed a consecutive sample of all eligible primary care patients during a pre-selected 2 to 4 day period in each practice before and approximately 12 months after establishing *Sofu-Net* (Fig. 1). Data was collected between September 2011 and February 2012 pre-, and between September 2012 and April 2013 post-intervention. Ethics approval was obtained from the Medical Chamber Hamburg, Germany. The trial was retrospectively registered at ISRCTN (ISRCTN55870770). Reporting followed the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) statement [30].

Sofu-Net was one subproject of *psychenet Hamburg Network for Mental Health*, a large health services research study funded by the German Federal Ministry of Education and Research (BMBF) with the aim to evaluate and improve mental health care in the Hamburg metropolitan area [31].

Study procedure and patients

At each assessment point (pre and post *Sofu-Net*), evaluation included two steps (Fig. 1). First, research assistants asked all consecutive patients to complete a screening questionnaire when waiting for the consultation, after providing oral informed consent. Exclusion criteria were having a severe somatic or psychiatric disease, acute suicidality, severe cognitive disabilities, being younger than 18 years old, having impaired vision, and insufficient German language skills.

In a second step, patients at high-risk for somatoform disorders were invited to participate in a structured telephone interview, which was conducted by trained interviewers blinded to patients' symptom scores. Patients provided written informed consent at this stage. PCPs completed a questionnaire for each telephone interview participant. They received €15 for the completion of each questionnaire, but did not receive any financial incentive for their overall participation in *Sofu-Net*. In addition, PCPs completed a short survey post *Sofu-Net* in February 2013.

Network structure and content of Sofu-Net

Sofu-Net connected 41 primary care physicians from 20 practices, 35 psychotherapists, 7 in-patient mental health clinics, and a specialized outpatient clinic at the Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Hamburg-Eppendorf in the region of Hamburg, Germany [32]. Network partners were recruited via the medical newsletter of the local medical association and existing connections.

The interdisciplinary network was designed to foster defined stepped and structured pathways in a coordinated, collaborative care approach with the ultimate goal to improve the early detection and management of somatoform disorders in primary care. Moreover, the network aimed to accelerate the successful diagnosis and referral to psychotherapy according to current guideline recommendations [2,25,26]. At the start of *Sofu-Net*, all network partners were introduced to the network structure, guideline recommendations for the management of somatoform disorders, and the use of the network elements

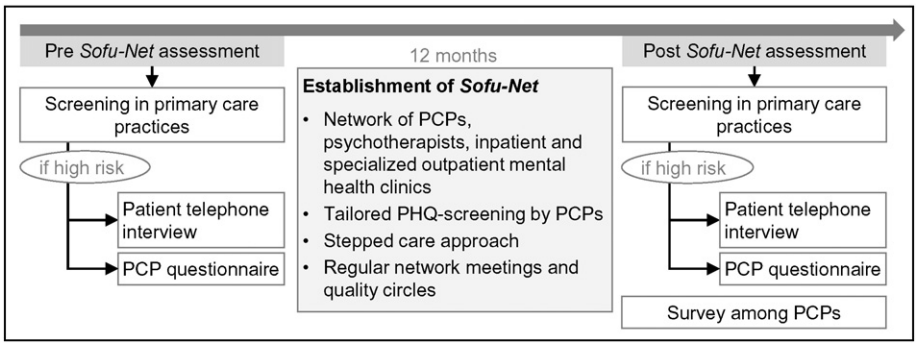

Fig. 1. Study design of *Sofu-Net*. PCP = primary care physician; PHQ = Patient Health Questionnaire.