Journal of Psychosomatic Research 107 (2018) 1–6

Contents lists available at ScienceDirect

Journal of Psychosomatic Research

journal homepage: www.elsevier.com/locate/jpsychores

Duration of untreated illness in patients with somatoform disorders

Annabel Herzog[a,*], Meike C. Shedden-Mora[a], Pascal Jordan[a,b], Bernd Löwe[a]

[a] Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Hamburg-Eppendorf and Schön Klinik Hamburg-Eilbek, Hamburg, Germany
[b] Department of Psychological Methods, Faculty of Psychology and Movement Sciences, Hamburg University, Hamburg, Germany

ARTICLE INFO

Keywords:
Duration of untreated illness
Functional disorders
Health services research
Primary health care
Psychotherapy
Somatoform disorders

ABSTRACT

Objective: A long duration of untreated mental illness (DUI) has been found to be associated with negative long-term outcomes. Although somatic symptom and related disorders are frequent in the general population and in primary care, data regarding the DUI of these disorders is scarce. The aim of this study was to investigate the DUI in patients with somatoform disorders.

Methods: In a cross-sectional study, primary care patients at high risk of having a somatoform disorder were identified using the Patient Health Questionnaire (PHQ). In a second step, life-time somatoform disorder diagnosis was established using the Composite International Diagnostic Interview (CIDI). Additionally, DUI was retrospectively assessed via self-reporting and sociodemographic information was collected. Survival analysis was used to estimate the DUI and to identify patient-related predictors of DUI.

Results: A total of 139 patients with somatoform disorders were included in the analyses. The mean DUI in these patients was 25.2 years (median 23.1 years). Higher education significantly predicted shorter DUI, whereas gender and age of onset were unrelated to DUI.

Conclusions: The results reveal a substantial delay in adequate treatment of patients with somatoform disorders. The reported DUI emphasizes the importance of improvements in the management of patients with these disorders.

1. Introduction

The delay between onset of mental disorder and start of adequate treatment is a challenge in the health care of patients with mental disorders [1]. A long duration of untreated mental illness (DUI) has been found to be associated with negative long-term outcomes such as developing comorbid disorders [2] or lower remission rates [3,4]. Despite there being an estimated 12-month-prevalence of 4.9% of somatoform disorders [5], studies on DUI have not yet focused on these common disorders. Henningsen et al. [6] reported a mean duration of approximately six years between onset of medically unexplained symptoms and contact with adequate tertiary care treatment in the German health care system. The sample consisted of 100 patients who were newly admitted to a psychosomatic outpatient clinic and for whom a somatoform disorder diagnosis could be confirmed by the Structured Clinical Interview for DSM-IV in most cases. In a French study, patients estimated the time since onset of their chronic unspecific pain and first consultation in a multidisciplinary clinic to be approximately 7 years [7]. Both studies reported retrospective data of patients from secondary or tertiary care centers who had already started adequate treatment. Patients, who had not yet started such treatment or patients from primary care settings, were not included in the samples, which could result in a conservative underestimation of DUI. Intervention studies in meta-analyses typically report mean durations of somatoform symptoms (not DUI) between 3 and 25 years [8–10]. To our knowledge, the DUI of somatoform disorders has rarely been investigated in the general population or primary care samples.

Somatoform disorders are often found to be persistent in the general population as well as in primary care [11–13]. They are associated with remarkable impairment and substantial rates of suicidality [14–18]. Numerous shortcomings regarding existing medical care have been reported for these patients. For instance, many barriers to the diagnosis of somatoform disorders have been identified [19]. Nonetheless, negative and persistent symptom course cannot be explained by a shortage of adequate treatment methods because effective treatments for non-specific, functional, and somatoform disorders do exist. Such treatments are described in current clinical guidelines [9,20,21]. According to German S3-guidelines, psychotherapy should complement primary care treatment in case of polysymptomatic or other severe courses [20]. However, psychotherapy often is not at all part of the treatment [22–25]. In contrary, patients often seek specialized somatic secondary care and show a high utilization of primary care [25]. In the

* Corresponding author at: Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Hamburg-Eppendorf, Martinistraße 52, 20246 Hamburg, Germany.
E-mail addresses: a.herzog@uke.de (A. Herzog), m.shedden-mora@uke.de (M.C. Shedden-Mora), pascal.jordan@uni-hamburg.de (P. Jordan), b.loewe@uke.de (B. Löwe).

https://doi.org/10.1016/j.jpsychores.2018.01.011
Received 30 August 2017; Received in revised form 20 December 2017; Accepted 18 January 2018

new DSM-5, the diagnostic category of somatoform disorders was replaced by the category of somatic symptom and related disorders (SSRD; [26]). This paradigm shift towards positive psychological diagnostic criteria and removing the previous restriction to medically unexplained symptoms might have implications for classification and treatment which needs to be investigated in future studies [27,28].

Because DUI has rarely been studied in patients with somatoform disorders, little is known about predictors of DUI in these patients. Different predictor variables of DUI, like gender, disorder severity, age of onset and presence of a comorbid disorder, have been investigated yielding heterogeneous results in patients with other disorders such as mood disorders, anxiety disorders, psychoses, and anorexia nervosa [29–31]. In patients with depression, Bukh et al. [4] did not find any significant association between DUI and different demographic and clinical variables such as gender, age of onset, severity of depression, or comorbidity. In other studies, longer DUI was associated with an earlier age of onset [30–32]. In a study on patients with psychosis, lower educational level in patients with longer DUI was reported [33], whereas Poyraz et al. [30] did not find a significant difference in the educational level of patients with obsessive-compulsive disorder comparing those with a short DUI vs. long DUI. In a large international sample, failure and delay in initial treatment contact after first onset of a lifetime mental disorder was associated with an early age of onset and being in an older cohort. Weaker effects were found for having a lower educational background and being male [34]. While different predictors might emerge depending on different mental health diagnoses, evidence suggests that the potential predictors for DUI in somatoform disorders worth investigating include gender, age of onset, and educational level.

In the present study, we aimed to investigate the duration between onset of somatoform disorder and first psychotherapeutic or psychiatric treatment in primary care patients with a life-time diagnosis of a somatoform disorder. In addition, we aimed to identify patient-related predictors of delays in the start of adequate treatment. In contrast to previous studies that only included patients who already underwent adequate secondary or tertiary care treatment, we studied a sample of primary care patients which also included patients who had not yet started adequate treatment.

2. Methods

2.1. Sample recruitment and study procedure

Data were collected within the project *Network for Somatoform and Functional Disorders (Sofu-Net)*, in which the effectiveness of a guideline-based stepped, collaborative, and coordinated health care network for patients at high risk for somatoform disorders was evaluated [35–37]. Sofu-Net was part of a large health services research study – *psychenet Hamburg Network for Mental Health* – funded by the German Federal Ministry of Education and Research (BMBF) aimed at evaluating and improving mental health care services in the metropolitan area of Hamburg [38]. Ethics approval was obtained from the Medical Chamber Hamburg, Germany. The study was retrospectively registered at ISRCTN (ISRCTN55870770). In total, 41 primary care physicians (PCPs) from 19 practices agreed to participate in Sofu-Net. The data included in the present study were gathered between September 2011 and February 2012, at the baseline of Sofu-Net – before network activities began. Given that the Sofu-Net study was initiated before the term “somatic symptom and related disorders (SSRD)” was introduced in DSM-5 [26], our study uses the term “somatoform disorders” in accordance with the terminology used in ICD-10 and DSM-IV [39,40].

In a first step, during a 2–4 day period per participating practice, research assistants asked all consecutive patients to complete a screening questionnaire regarding bodily complaints and well-being, after providing oral informed consent. Patients with severe somatic/psychiatric diseases (e.g., acute cancer or psychosis), acute suicidality, severe cognitive disabilities, age below 18, impaired vision, or insufficient German language skills were excluded from the study. In a second step, all patients at high-risk for somatoform disorders (see below) were invited to participate in a structured telephone interview conducted by trained interviewers. At this stage, patients provided written informed consent. Patients who fulfilled the diagnostic criteria for a life-time diagnosis of a somatoform disorder were included in the analyses of the present study.

2.2. Measures

The screening questionnaire included socio-demographic data (gender, age, and highest level of education) and data on health care utilization (PCP visits during the last 6 months, current psychotherapy, intake of medication). Additionally, the Patient Health Questionnaire [41] was administered to assess the self-reported symptom severity of somatic complaints (PHQ-15), anxiety (GAD-7) and depression (PHQ-9). The PHQ-15 assesses the presence and severity of 15 common somatic complaints within the last four weeks on a 0 (not bothered at all) to 2 (bothered a lot) scale [18,42]. The PHQ-9 [43,44] and the GAD-7 [45,46] assess the severity of 9 depressive and 7 anxiety symptoms within the past two weeks on a 0 (not at all) to 3 (nearly every day) scale. Patients were categorized as high-risk for somatoform disorders if they reported either high levels of somatization (PHQ-15 scores $\geq$ 15) or moderate levels of somatization (PHQ-15 scores $\geq$ 10) in combination with at least moderately elevated levels of anxiety and/or depression (PHQ-9 and/or GAD-7 scores $\geq$ 10).

Diagnoses of patients at high-risk for somatoform disorders were established in the telephone interview using the computer assisted section of somatoform disorders of the Composite International Diagnostic Interview (CIDI; [47,48]). Interviews were conducted by trained interviewers. Within the CIDI, current and life-time somatoform diagnoses were assessed, as well as age of onset. Life-time diagnoses refer to the whole period of the patients' life, including current syndromes. Additionally, all patients with a somatoform diagnosis were asked within the structured assessment, whether they had ever undergone psychotherapeutic or psychiatric treatment and when the first treatment took place since the onset of the somatoform disorder. Duration of untreated illness (DUI) was defined as the interval between the first onset of the somatoform disorder and the first psychotherapeutic or psychiatric treatment after this onset. When estimating DUI, we defined adequate treatment rather broadly, as any kind of secondary or tertiary psychotherapeutic or psychiatric care without any restrictions regarding the cause of treatment initiation or the treatment focus.

2.3. Statistical analyses

We used methods of survival analysis in order to model the DUI. More specifically, the Kaplan-Meier estimator was used to estimate the survival function and hazard rate of the DUI in all patients with a life-time somatoform disorder. This method was used in order to account for the retrospective assessment, which included patients at different ages and with different symptom duration. Thus the DUI refers to a time until some event (i.e., mental health treatment) occurs and may include censored outcomes, i.e. patients for which only a lower bound of duration is observed and not the exact value. For patients who had not received any psychotherapeutic or psychiatric treatment, the time interval between illness onset and date of investigation was calculated and used for estimation of DUI. To model the dependency of the DUI on the covariates gender, age of onset, and education, a cox regression model was fitted. The analysis was restricted to these predictors as they can be assumed to be time independent.[1] To correct for multiple testing,

[1] Incorporation of time dependent covariates would hardly be feasible and would, in addition, require strong modeling assumptions.