Journal of Psychosomatic Research 74 (2013) 179–185

Contents lists available at SciVerse ScienceDirect

Journal of Psychosomatic Research

A high physical symptom count reduces the effectiveness of treatment for depression, independently of chronic medical conditions

Klaas M.L. Huijbregts [a,b,c,*], Fransina J. de Jong [d], Harm W.J. van Marwijk [c], Aartjan T.F. Beekman [e], Herman J. Adèr [f], Christina M. van der Feltz-Cornelis [a,g,h]

[a] Netherlands Institute of Mental Health and Addiction (Trimbos Institute), Utrecht, The Netherlands
[b] GGZinGeest, partner of VU University Medical Center, Amsterdam, The Netherlands
[c] Department of General Practice and the EMGO+ Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands
[d] Dimence GGZ, Deventer, the Netherlands
[e] Department of Psychiatry and the EMGO+ Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands
[f] Johannes van Kessel Advising, Huizen, The Netherlands
[g] Department of Tranzo, University of Tilburg, Tilburg, The Netherlands
[h] Top Clinical Centre for Body, Mind and Health, GGz Breburg, Tilburg, The Netherlands

ARTICLE INFO

Article history:
Received 1 October 2012
Received in revised form 9 January 2013
Accepted 10 January 2013

Keywords:
Depression
Collaborative care
Primary care
Concomitant physical symptoms
Somatization

ABSTRACT

Aim: To assess to what extent a high physical symptom count influences the effect of treatment for major depressive disorder (MDD), and whether or not actual comorbid medical conditions explain this relationship.
Method: Secondary data-analysis on a cluster-randomized trial in primary care, comparing the effectiveness of collaborative care with care as usual (CAU). MDD was measured using the PHQ-9. The Physical Symptoms Questionnaire (PSQ) was filled out at baseline by 115 patients (77.2% of those who entered the trial). Multilevel logistic regression models were used to test whether a high physical symptom count predicted lack of response to treatment, adding interaction terms to test differential effects on collaborative care versus CAU.
Results: A high physical symptom count negatively influenced the effect of both collaborative care and care as usual (no interaction). Specifically, a high physical symptom count predicted lack of response in both conditions at 3 (odds ratio = 6.8), 6 (OR = 4.1), and 9 months follow-up (OR = 6.4). This was not explained by chronic physical illness.
Conclusion: In this RCT, patients with MDD accompanied by a high physical symptom count benefited less from treatment for MDD in primary care, regardless of the type of treatment (either collaborative care or CAU). This was not explained by the presence of comorbid medical conditions. Further research is needed to improve treatment for MDD accompanied by a high physical symptom count, although collaborative care for depression is still more effective than CAU for this group of patients. Trial registration: Dutch trial register ISRCTN15266438.

Introduction

Patients under treatment for Major Depressive Disorder (MDD) often report concomitant physical symptoms. Indeed, 70% report physical instead of psychological symptoms during their first visit to a general practitioner (GP) for what later turns out to be MDD [1]. Moreover, epidemiological data indicate that MDD frequently co-occurs with both somatoform disorders [2] and chronic medical conditions [3]. However, there has not been much research into the topic of the possible influence of concomitant physical symptoms – particularly if the effect of these symptoms is assessed after a correction for the effect of chronic medical conditions – on the effectiveness of treatment for MDD [4].

This is an important issue because there is ample room for improvement in terms of response and remission percentages for MDD in everyday care, even though efficacious treatments are available [5,6]. In the usual care arm in the large IMPACT-trial, assessing the effectiveness of collaborative care in primary care, only 16.7% of the participating patients achieved remission after 6 months [7]. One of the reasons why treatment for MDD appears to be suboptimal in everyday care may well be the high co-occurrence with physical symptoms. In the primary care setting, for instance, GPs are faced with competing demands, as physical symptoms and psychological symptoms are often presented simultaneously in the short time span of a consultation [8]. This may interfere with effective treatment for MDD.

Studies into the possible influence of persistent physical symptoms on the outcome of MDD have so far focused almost exclusively on pain [9]. A systematic review [4] and a recent study in primary care [10], however, showed that studies should also look at the wider

* Corresponding author at: GGZinGeest, Polikliniek Psychosomatiek, Osdorpplein 880, 1068 TD Amsterdam, The Netherlands. Tel.: +31 20 788 4571.
E-mail address: k.huijbregts@ggzingeest.nl (K.M.L. Huijbregts).

0022-3999/$ – see front matter © 2013 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.jpsychores.2013.01.004

spectrum of physical symptoms, such as fatigue, indigestion, dizziness, and fainting [11]. Such physical symptoms in patients with MDD may be due to a chronic medical condition, may be considered a symptom dimension of the depression, or may remain medically unexplained. Concomitant physical symptoms might well be a relevant factor in course and treatment of MDD, regardless of their origin, but up until now we are not aware of any empirical research that assesses the independent contribution of accompanying physical symptoms on the outcome of MDD after a correction for chronic medical conditions [4]. Physical symptoms are often operationalized by measuring them on a scale, but evidently this does not clarify to what extent an effect of such symptoms is due to underlying somatic pathology. Crombez and colleagues have called this 'the unbearable lightness of somatisation' [12].

A good opportunity to test the assumption that concomitant physical symptoms, interfere with treatment of MDD, even after a correction for chronic medical comorbidity, would be a pre-planned secondary data-analysis on a trial assessing the effectiveness of enhanced treatment for MDD in primary care. A correction for chronic medical conditions does not imply that physical symptoms are indeed unexplained (to be reasonably sure of that all symptoms would have to be assessed at baseline by a medical doctor), but it does shed light on the independent contribution of these symptoms regardless of the underlying pathology. Forthermore, if it is true that concomitant physical symptoms negatively influence the effect of treatment for MDD, this might be less pronounced when patients are treated in an enhanced care arrangement, where a specialized nurse (care manager) operates next to the GP (as this might reduce the burden of competing demands). If a care manager is available to address psychosocial issues, this may enhance effectiveness of treatment for MDD even when concomitant physical symptoms are present. An example of a form of enhanced care for MDD that incorporates these elements is collaborative care [7,13,14].

We tested the assumption that concomitant physical symptoms influence the effectiveness of treatment for MDD in a recently completed RCT that evaluated the effectiveness of collaborative care in primary care in The Netherlands [14]. Given the fact that most patients report physical symptoms when suffering from MDD, we decided to look at the group with a relatively high physical symptom count. The physical symptom count was measured at baseline (before the start of treatment) and the outcome in terms of depression severity was determined at follow-up. We hypothesized (i) that a high physical symptom count at baseline has a generic negative effect on the lack of response to treatment for MDD at follow-up, (ii) that this effect may be stronger in CAU than in collaborative care, and (iii) that this effect is independent of the presence of chronic physical illness. Thus, if hypothesis iii holds true, this implies that the results regarding hypothesis i and ii still hold true when the model is corrected for chronic physical illnesses.

Methods

Design and patients

We conducted a pre-planned secondary analysis of data from a cluster-randomized trial assessing the effectiveness of collaborative care for MDD in primary care in The Netherlands [14]. The design of the study has been described in more detail elsewhere, but is summarized below [14]. The study protocol was approved by the Medical Ethics Committee (METC) of the VU University Medical Center (protocol number 2006/158). The trial was registered in the Dutch trial register: ISRCTN15266438.

Eighteen primary care centers (with a total of 82 GPs) were randomly assigned to either collaborative care (CC) or care as usual (CAU) by an independent statistician using a computer algorithm for cluster allocation [15]. GPs in primary care centers randomized to the CC condition received training in the collaborative care model, the use of a web-based tracking system, and cooperation with a consultant psychiatrist. Patients of the respective practices could enter the trial in two ways: either by screening or after identification by their GP. Screening was done as follows: all patients who had consulted their GP during the past 6 months received the PHQ-9 [16] by mail, regardless of the reason for prior consultation. The reason for this broad approach is that literature suggests that patients suffering from Major Depressive Disorder (MDD) are more likely to report miscellaneous physical symptoms to their GP instead of the core symptoms of MDD [1,8].

After informed consent patients were asked to return the questionnaire regardless of whether or not they still had any symptoms. At the moment of screening, patients were unaware of their allocation. Inclusion criteria were age >17 years, PHQ-9 score ≥ 10 and a classification of MDD according to the MINI neuropsychiatric interview [17], which was administered by telephone. Exclusion criteria were suicidality, psychosis, dementia drug or alcohol dependence, being already under specialty mental health treatment, or insufficient knowledge of Dutch to fill in the most important questionnaires. Suicidality was evaluated if patients scored at least 2 on item 9 of the PHQ-9 (thoughts that you were better off dead or of hurting yourself in some way). In these cases an assessment of the risk was made with section C of the MINI neuropsychiatric interview (a high risk is defined as actual plans or a prior suicide attempt combined with current suicidal thoughts). A patient's GP was informed when the suicide risk based on the MINI was high. The GP assessed whether or not immediate treatment was necessary. If this was not the case a patient could still be included in the trial.

The trial flowchart describing the randomization procedure and the percentages of patients who returned the follow-up-questionnaire at three, six, nine, and twelve months is presented in Fig. 1. The patients who received collaborative care after identification by their GP were treated as a separate group in the flowchart (to provide insight in the inclusion process), but we will present results for the collaborative care group as a whole.

The collaborative care intervention is described in more detail elsewhere [14]. Briefly, a GP, a depression care manager (for instance a specialized nurse), and a consultant psychiatrist operate as a team to provide optimized primary care for MDD based on a stepped care algorithm. Usual care could be any form of care that was available to a patient. The results of the trial were described elsewhere, and showed a better outcome in terms of treatment response for collaborative care compared to CAU [18].

Study oversight

This study was part of the Netherlands Depression Initiative [19,20], a national initiative aimed to improve depression treatment. The study was supervised by a steering committee and a supervisory board that met 4 times a year.

Measures

High physical symptom count

Physical symptoms were measured using the validated Physical Symptoms Questionnaire [21] which participants filled out at baseline. It measures 51 physical symptoms, such as chest pain, headache, dizziness, seizures, intolerance to certain types of food, and shortness of breath. Symptoms are measured on a scale that ranges between 0 (not present in the past week) and 3 (often present in the past week) and are added up. When a patient scores 2 or higher on an item, this is counted as a physical symptom. The verbal anchor for 1 is 'sometimes present in the last week', the anchor for 2 is 'regularly present in the past week'.

According to Van Hemert and colleagues a score of 15 symptoms or higher is the average for severe physical symptoms in men suffering from anxiety or depression, and the same holds for a score of 17 symptoms or higher for women [22]. We applied these means as cut-off scores for men and women in order to identify patients who were suffering from a high physical symptom count.