The Depression Initiative. Description of a collaborative care model for depression in the primary care setting in the Netherlands

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THE DEPRESSION INITIATIVE. DESCRIPTION OF A COLLABORATIVE CARE MODEL FOR DEPRESSION IN THE PRIMARY CARE SETTING IN THE NETHERLANDS

Christina M. van der Feltz-Cornelis

Abstract

Objective: To describe the collaborative care model for primary care as it has been developed in the Depression Initiative in the Netherlands from 2006-2010.

Method: Review of collaborative care models, and description of the collaborative care models as developed in the Depression Initiative.

Results: Collaborative care is a treatment model based on the principles of the chronic care model that aims to translate evidence based treatment for depressive disorder to everyday practice in the primary care setting. It was found to be effective and cost effective, depending on willingness to pay, in the US and the UK. The Depression Initiative is a Nationwide program aimed at implementation of the multidisciplinary guideline for depression in the Netherlands, in which the collaborative care model has been elaborated for three settings: primary care, the occupational health care setting and the general hospital outpatient setting. The model is feasible and first outcomes are positive in the three settings in the Netherlands.

Conclusions: Collaborative care as developed in the Depression Initiative in the Netherlands is a promising treatment model for major depression in the primary care setting. The model may be applied in the occupational health setting and the general hospital outpatient setting as well. In the future, anxiety disorder and Medically Unexplained Symptoms may be candidates for treatment with this model.

Key Words: collaborative care, primary care, depression

Declaration of interest: none

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Introduction

Treatment of major depression in the primary care setting

Primary care is 'the point of entry into the health care system and the locus of responsibility for organizing care for patients and populations over time (Starfield 1973).' Major Depressive Disorder (MDD) is highly prevalent and a cause of significant burden to patients and society (Kessler et al. 2003, Murray and Lopez 1997). Many patients with MDD present themselves in primary care; referral to specialized mental health care is not always an option and possibly not optimal either (Verhaak et al. 2000), which calls for treatment in the primary care setting (Van der Feltz-Cornelis et al. 2008). However, although effective treatments for depression are known from the mental health care setting, their application to patients in need in the primary care setting can be troublesome (Kilbourne et al. 2004). Guidelines and educational measures alone have so far been insufficient to change this. General practitioners (GPs) need knowledge about how to recognize patients with depressive symptoms requiring treatment, how to offer treatment, how to apply it and how to adhere to it (Ormel et al. 2004). Also, techniques are needed to motivate patients to adhere to the treatment advice. This is all the more relevant as depression is often a recurring or chronic condition, requiring continuous attention of a different nature than the current common approach in the primary care setting, which is for the most part aimed at ad hoc short term treatment of a variety of symptoms. Nevertheless, primary care can be the place where MDD can be approached from a long term perspective, as it is in many countries the place from which patients receive care for long periods of their life, embedded in their proper psychosocial environment.

It has been suggested that strategies to improve depression care in medical settings should be based on the chronic care model of Bodenheimer and Wagner (Bodenheimer et al. 2002a & 2002b), such as disease management programs (DMPs) organizing evidence-based health care that proved effective for treatment of

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depressive disorder in terms of symptom reduction, remission, quality of life and adherence to treatment in the primary care setting (Bodenheimer et al. 2002a & 2002b, Gilbody et al. 2006).

Collaborative care

A chronic care model

The chronic care model has been elaborated in several ways, one of which is the collaborative care model. In the collaborative care model, the role of a care manager is introduced and a network is envisioned of GP, care manager and consultant psychiatrist, who deliver treatment to a motivated patient who actively participates in treatment. Outcome of treatment is monitored and treatment adapted accordingly. The model has been elaborated in several ways and its efficacy has been evaluated in different countries with a variety of health care settings and treatment patterns for mental disorder. Collaborative care as a DMP model for depression management has been applied in the US, the UK and the Netherlands. Trials for its application are underway in Germany and Italy. Intensity or complexity of care is increased if the patient does not improve with first steps of treatment according to a stepped care algorithm. Patients are first offered an intervention that, while likely to be effective, is relatively easy to implement and carries relatively low cost or side effects, such as problem solving treatment (PST) (Mynors-Wallis 2005). If the effect turns out to be insufficient, treatment is stepped up to a more complex, costly or taxing (in terms of side effects) level, such as antidepressant treatment (Neumeyer-Gromen et al. 2004). The aim is to ensure that all eligible patients have access to appropriate care, while reserving the most complex treatments for those that have demonstrated not to benefit in more simple treatment (Van Steenbergen-Weijenburg et al. 2010, Rost et al. 2005). Adherence to treatment by patients as well as GPs and care managers is of paramount importance for attaining remission of depression and collaborative care is the most effective intervention model in terms of enhancing adherence (Vergouwen et al. 2003).

Models of collaborative care

Several collaborative care models exist. Some consider collaboration between a pharmacist and a GP collaborative care (Bower et al. 2006); in this article, such a model will not be explored further because of its narrow focus on psychopharmacological treatment. Most models involve a nurse care manager, however the way the care manager fulfills his or her role can differ from collaboration between a GP and a nurse care manager who only monitors treatment by phone, such as provided by Kaiser Permanente, and collaboration between a GP and a nurse care-manager who not only monitors treatment and treatment outcome, but also provides PST, such as in the UK model (Richards et al. 2006). In the European models, the role of the GP is to start treatment with a treatment plan, to prescribe antidepressant medication, to supervise a suicidality protocol, to consult the psychiatrist, and to arrange referral to specialty mental health care if needed. In the US, many of these tasks may be performed mostly by the care manager. The USA IMPACT model also gives the care manager access to psychiatric consultation advice (Unützer et al. 2002). In the IMPACT collaborative care model as developed by Katon e.a., treatment is provided by at least two out of three of the following (Kroenke et al. 2001, Katon et al. 1999): the GP, the care manager, and a consultant psychiatrist. They establish a treatment plan together with the patient, based on Guidelines for Depressive disorder, and they monitor the treatment following a stepped care procedure with the PHQ-9 (Unützer et al. 2002) as indicator for monitoring. The model applied in the Depression Initiative in the Netherlands is a further elaboration of the IMPACT model.

Efficacy

Overall effect sizes of collaborative care in individual RCTs and in a systematic review range from 0.25 (95% CI 0.18-0.32) in the US (Bower et al. 2006, Unützer et al. 2002, Katon et al. 1999) to 0.63 (95% CI 0.18-1.07) in the UK health care system (Richards et al. 2008). In the Netherlands, an effect size in a similar range as the UK was found in preliminary analyses of a RCT comparing collaborative care with Care As Usual, (CC:DIP) (Ijff et al. 2007, Van der Feltz-Cornelis et al. 2010d). This variation in efficacy may occur due to different application of the model as described above, differences in health care utilization patterns in different countries, and differences in the primary care population that is offered collaborative care. Concerning the latter, the way the patients eligible for collaborative care are selected may be of high importance. In a Cochrane Review, non-selective screening irrespective of baseline score of depression was found to be ineffective to achieve treatment response (relative risk 1.00; 95% confidence interval 0.89 to 1.13), whereas a two-stage selective procedure, whereby patients were screened for depressive disorder but only patients scoring above a certain threshold were selected for treatment, was found to be effective (relative risk 2.66; 95% confidence interval 1.78 to 3.96) (Gilbody et al. 2005). Hence, establishing a stepwise screening method in order to identify high risk patients with depressive disorder and to offer those high risk patients treatment is essential for reaching optimal treatment outcome.

Best primary care practices and current national guidelines in the Netherlands

Guidelines for anxiety disorders (Terluin et al. 2004) and depressive disorders (Van Marwijk et al. 2003) have been developed in the primary care setting in the Netherlands. Also, in 2006-2007, the Dutch Multidisciplinary Guideline Workgroup for psychiatric consultation developed a Guideline on psychiatric consultation for the general hospital setting as well as the primary care setting that was published in 2008 (Leentjes et al. 2008). This describes how to perform so-called ‘patient-centred case consultation’ in the

primary care setting as described by Caplan from the perspective of "community mental health" (Caplan 1963), where the psychiatrist himself sees the patient and provides the GP with a diagnosis and treatment plan. This psychiatric consultation can take place at the location of the psychiatric practice, as in the studies of Smith et al (Smith et al. 1986, Smith et al. 1995), or at the general practice office, where it is mostly done in the presence of the GP (Katon et al. 1992). GPs appreciate this form of support (Herbert and Van der Feltz-Cornelis 2004). Psychiatric consultation is often embedded in a larger collaborative relationship in which other disciplines, especially psychiatric nursing, also play a role. Such collaborative models can take a variety of forms, depending on the psychiatric facilities and the target group (Pincus 1987). In the most common form of 'collaborative care' a case-manager, usually a registered psychiatric nurse, treats the patient in the general practice offices of the GP and follows the course of the mental disorder in accordance with a treatment plan that was drawn up previously in consultation with the psychiatrist, which is evaluated at regular intervals and adjusted if necessary. Availability of a consultant psychiatrist for consultation differs per model but is associated with better outcomes (Bower et al. 2006). In several systematic reviews, key predictors of depressive symptom outcomes in a collaborative care model included systematic identification of patients, professional background of care managers (CMs), method of specialist supervision of CMs and medication compliance (Bower et al. 2006, Vergouwen et al. 2003). A systematic review and meta analysis of the effects of psychiatric consultation in the primary care setting, either as stand alone intervention, or embedded in collaborative care, established clearly the efficacy of psychiatric consultation (Van der Feltz-Cornelis et al. 2010c).

In the Netherlands, various multidisciplinary collaborative care models have been developed in the primary care setting, in which consultations by a psychiatrist are always either structurally provided or optional by clearly defined indications. One such model is a model for medically unexplained symptoms, the POCO model in which a consultant psychiatrist visits the family practice, interviews patient and GP together about the symptoms, explores attributions of the patient as well as motivation for treatment options, and then provides patient and GP with a consultation letter with advice (Van der Feltz-Cornelis et al. 1996). A collaborative care model has also been developed for treatment of depression in the primary care setting, and has been evaluated in a RCT (CC:DIP), as part of the Depression Initiative; first results have been presented and more will follow in 2011 (Ijff et al. 2007, Van der Feltz-Cornelis et al. 2010). Also, a stepped collaborative care model has been developed for generalized anxiety disorder and panic disorder in the primary care setting. The efficacy of this model is being evaluated in a RCT (CC:PAD) (Muntingh et al. 2009). Efficacy of collaborative care has been established not only for depression, but also for medically unexplained symptoms, with effect sizes ranging from 0.8 to 1.2 (Van der Feltz-Cornelis et al. 2006).

The Depression Initiative

In the Netherlands, the Depression Initiative has been launched as an initiative aimed at improving detection and treatment of depression at a national level, based on the multidisciplinary guideline for depression that was published in 2005 (Van Marwijk et al. 2005). In the Netherlands, this need was felt as GPs are gatekeepers for mental health care, but their recognition of depressive disorder and their adherence to treatment as it should be provided according to the guideline was relatively low. Several factors may play a role in this, such as delay in identifying depressive symptoms by patients and GPs due to competing demands during patients' visits, treatment delay, referral delay, low adherence and compliance to treatment, and lack of monitoring of treatment outcome. Also, often patients' preferences to treatment are not systematically considered in setting up a treatment plan, and in general, little attention is paid to relapse prevention if a depression has gone into remission (Ormel et al. 2004, Van Schaik et al. 2004, Nutting et al. 2000).

Contrary to care delivered by Health Maintenance Organizations (HMOs) in the USA, primary care in the Netherlands is mostly delivered by GPs who operate from individual practices, supported by psychiatric nurses or nurse physicians that often provide services to several practices and thus are not always present. If they have access to Consultation Liaison (CL) Psychiatrists, those consultants can be either consultants from Mental Health Institutions or from private psychiatric practices. This fuzzy primary care mental health structure sets specific demands on interprofessional communication that is needed for achieving adherence to the treatment plan. Once the patients eligible for treatment have been identified and a treatment plan is set up, treatment integrity and adherence to treatment advice is essential for attaining remission (Oxman et al. 2006). In a survey, it was found that GPs felt the need for support in this (Herbert and Van der Feltz-Cornelis 2004) and thus, considering the success of the first psychiatric consultation projects and the interest in collaborative care as a model(Van der Feltz-Cornelis et al. 2006a), the wish of GPs for integrated collaboration between their setting and the specialty mental health setting in the treatment of depressive disorder, and the clear and urgent need from the perspective of patients, caregivers, and society as a whole, the Depression Initiative was launched. The Depression Initiative started in 2006 after two years of preparations, and it will end in 2011.

The Depression Initiative has been launched to integrate treatment for depressive disorder on a nationwide level according to the principles of disease management. It is a program aimed at implementation and evaluation of the multidisciplinary guideline for depressive disorder in primary care, in Mental Health Institutions, in communities, and in the general health, occupational health and community setting. The program aims to improve integrated care containing prevention, diagnosis, treatment according to guidelines, monitoring of treatment, attaining remission and relapse prevention by implementation of an integrated care treatment program for depressive disorder, and to evaluate its cost-effectiveness (Van der

Feltz-Cornelis et al. 2006b). It is a National research and implementation program funded by the Innovatiefonds Zorgverzekeraars, the National Insurance companies research fund; and co-funded by regional insurance companies, Mental health institutions, social insurance companies, and general hospitals. It is lead by the Trimbos Instituut. Hundreds of GPs and other health care professionals working in the primary care setting collaborate, together with 4 regional municipalities, 4 Universities, and 13 departments of mental health institutions. The program is lead by a steering group with a national and international advisory board.

The Depression Initiative is a program containing 10 projects: one aimed at prevention of depression in the elderly with a focus on application in the municipal and community setting; five projects aimed at improving depression care in the primary and specialty mental health setting, using Breakthrough Collaborative implementation strategies in thirteen multidisciplinary teams; this resulted in improvement, especially of less severe depressive disorders (Franx et al. 2009). Another project aimed at dissemination of instruments that proved feasible for application of care in the implementation of the Depression Initiative by way of training, a web-based tracking system, and a website with relevant documents for health care providers. Three projects developed a collaborative care model applicable in three separate settings of the Dutch Health care system, namely primary care, occupational health care and the general hospital outpatient setting, and evaluated effectiveness and cost effectiveness of these three collaborative care models. These three models will be discussed below.

Collaborative care in primary care

The primary care collaborative care model as applied in the Netherlands in the Depression Initiative is a further elaboration of the IMPACT model, in which the GP and nurse care-manager work together with the patient according to a stepped care algorithm embedded in a web-based computer program. This is a tracking system that supports monitoring and works as a decision aid. The care manager provides PST and monitors treatment as well as outcome. The care manager receives supervision from a certified PST trainer. Furthermore, the GP can ask consultation advice from a consultation psychiatrist on a regular basis and this option is also provided on certain indications by the tracking system (De Jong et al. 2009). This model has been implemented in 4 regions, with 18 general practices and 81 GPs, and 2 Mental Health Institutions. Training and supervision of the care managers and GPs is provided on a structural basis, together with structurally embedded possibilities for psychiatric consultation. The algorithm is embedded in the secured web-based tracking system. The GPs and care-managers are enthusiastic about the collaborative care model and embrace the use of a web based algorithm to support them in attaining treatment integrity (Van der Feltz-Cornelis 2009a). Also, GPs sympathize with the patient-centered approach in collaborative care, as the treatment plan is set up in accordance with the preference of the patient and a lot of effort is made to motivate the patient. This results in high adherence and compliance levels. Evaluation of the cost effectiveness of this treatment model in the primary care setting is underway (Ijff et al. 2007). First outcomes show that this model is more effective than Care As Usual in terms of symptom reduction and response to treatment in the Dutch health care system(Van der Feltz-Cornelis et al. 2010d).

Collaborative care in the occupational health setting

In the Depression Initiative, collaborative care has not only been developed as a model for the primary care setting, but also for the occupational health setting. This has been developed for sick listed employees with major depression. The rationale for this approach is that patients with depression often lose their job during their depression. If their depression is recognized and treated, the focus is commonly on remission of depressive symptoms. Although this is important, Return To Work (RTW) tends to be overlooked as focus of attention, as specialty mental health setting therapists generally do not have the expertise to enhance RTW (Nieuwenhuijsen et al. 2008, Lagerfeld et al. 2010). Therefore, the idea was conceived to locate collaborative care treatment in the occupational health setting in order to combine expertise. In a first RCT aimed as pilot study, the effect of psychiatric consultation provided to the Occupational Physician (OP) was compared to Care As Usual and evaluated (Van der Feltz-Cornelis et al. 2007). As psychiatric consultation in this RCT was associated with faster Return To Work (Van der Feltz-Cornelis et al. 2010a), a second RCT is now being performed in the Depression Initiative with a more elaborate collaborative care model supported with the web-based secured tracking system, in which the OP is care manager providing PST and a work rehabilitation intervention supported by the web-based tracking system and the consultant psychiatrist. This is performed in an occupational health service covering approximately two thirds of the Netherlands with the collaboration of over 30 OPs (Vlasveld et al. 2008).

Collaborative care for depressed chronic medically ill patients visiting the hospital outpatient clinic

In the Depression Initiative, also a collaborative care model has been developed for depressed chronic medically ill patients visiting the hospital outpatient clinic (Horn et al. 2007). This follows from the fact that chronic medically ill patients visiting the hospital on a regular basis, in case of a co-morbid depression, may need treatment that encompasses the specialist medical care they need for their chronic medical illness. Furthermore, their depressive symptoms may somehow be associated with their medical illness, such as diabetes mellitus or cardiovascular disorder. Providing adequate treatment for co-morbid depression in the chronic medically ill may therefore require more than only depression treatment, as was recently suggested in a

systematic review and meta analysis on treatment of depression in Type 2 diabetes mellitus (Van der Feltz-Cornelis et al. 2010b). This provides us with a rationale to deliver treatment for co-morbid major depression in the outpatient hospital setting for chronic medical ill patients. In the UK, Strong et al. evaluated a proof of concept study in which a cancer nurse care-manager monitored treatment. However, it was found that in this study, many eligible patients refused treatment. Also, the link with the GP, who was supposed to provide antidepressant treatment if needed, was not very strong. Nevertheless, some improvement of depressive symptoms could be found (Strong et al. 2008). It has been proposed that a more extensive collaborative care network in which a nurse would collaborate with the medical specialist and with the psychiatrist from the Consultation Liaison Service in the Hospital might even be more effective (Van der Feltz-Cornelis 2009b). However, it should be kept in mind that the efficacy of the model is dependent of the organization of care; in the hospital setting, the patient is not at community level but at a higher level which might make the effect of collaborative care different. This is evaluated in the CC:DIM trial of the Depression Initiative (Horn et al. 2007).

Dissemination of collaborative care. What factors in the model are most important?

Collaborative care is a treatment model for depressive disorder. It is also a model for delivery of health care requiring certain organizational interventions**.** It combines evidence based treatment modes with organizational interventions aimed at enhancing adherence of health care professionals, such as clear protocols, a secured web-based tracking system working as a decision aid and supporting monitoring of treatment, training and supervision, and structural psychiatric consultation for clearly defined indications. It provides criteria to decide how long to follow through on a certain treatment mode, and if a patient should no longer be treated in the primary care setting, but should be referred to specialty mental health care instead. It clearly defines roles and responsibilities of the different health care professionals in a multidisciplinary team. These aspects favor treatment integrity. Also, the model is patient centered and aims to educate and motivate the patient. It is designed to follow the preference of the patient for the treatment, as all treatment modes available in the model are evidence based and a motivated patient will probably be the most likely to follow through with the treatment. Thus, it enhances active collaboration of the patient.

Factors in the model that are most relevant to dissemination are availability of the secured web-based tracking system as decision aid and monitoring support system, regular training and supervision of care-managers, and structural availability of a consultant psychiatrist. For further implementation, an infrastructure that facilitates early detection of patients with vulnerability to develop depressive disorder, and that facilitates entrance at the primary care setting, is needed as well (Van der Feltz-Cornelis et al. 1997). For this purpose, screening and case-finding methods should be improved in order to make efficacious application possible (Gilbody et al. 2007). Instruments such as the MINI are available for application in case finding, however their feasibility for wide scale application in the primary care setting has not been evaluated (Van Vliet & De Beurs 2007).

Reimbursement of treatment according to this model is of paramount importance and may be problematic in some countries, depending on the currently existing reimbursement structure; in the Netherlands, recent changes in reimbursement system provide possibilities to implement collaborative care (Ministry of Health, Welfare and Sport 2006, Nederlandse Zorgautoriteit 2008a & 2008b). However, access to primary mental health care in many countries depends on socio economic status of patients (De Navas-Walt et al. 2007) and this should be a focus of attention to health policy makers. The finding that collaborative care can be considered cost-effective, depending on the willingness to pay (Van Steenbergen-Weijenburg et al. 2010), might encourage them to do so.

Also, the question if GPs are working in a gatekeeper system or not may be relevant for dissemination of this model. Level of organization of GPs and their active participation in agenda setting for primary care mental health as well as monitoring of health care delivery in general practice can be helpful to devise policies aimed at dissemination of this model. Both are available in the Netherlands (Opinion of the Dutch College of General Practitioners 2007, Hansen et al. 2007).

The fact that in the Depression Initiative the model is feasible and currently being evaluated for efficacy in the occupational health setting as well as the Hospital outpatient clinic offers prospects for further elaboration of the model for other settings. Also, this model may be useful not only for depression but also for anxiety disorders (Muntingh et al. 2009) and for Medically Unexplained Symptoms (Van der Feltz-Cornelis et al. 2006).

Conclusion

In the Netherlands, the Depression Initiative has been a successful attempt to improve standards of care for depression. In encompasses strategies for prevention, detection, diagnosis, treatment, and relapse prevention of major depression in several settings, such as primary care, occupational health and the general hospital outpatient setting. The collaborative care model has been implemented successfully and first results of several RCTs in the Depression Initiative show efficacy compared to Care As Usual in the Dutch health care system. Because of shattered distribution of GP practices, differences in EPD systems, and application in a variety of health care settings, a secured web-based tracking system based on a protocol with an algorithm, and low level availability of a consultant psychiatrist in case the care manager working with the algorithm as decision aid needs expert advice, is of paramount importance for dissemination of the model. The model improves adherence and enhances active participation of the patient by working alongside patient preferences

for treatment. Expansion of the model to anxiety disorders and Medically Unexplained Symptoms is underway.

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