Chapter 3

The practical implementation of guidelines: the importance of measuring

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Abstract

The authors discuss the background and expectations regarding working with evidence-based care programs in the Netherlands and abroad. Working according to care programs is generally expected to be advantageous at all levels. A survey conducted by the authors shows that most mental health facilities do use care programs, but there is still a lack of clarity about the extent to which care programs are actually applied in day-to-day treatment practice. Lastly, the necessity and advantages are discussed of developing an instrument in which the extent of implementation can be determined in day-to-day treatment practice.

Introduction

Until quite recently, practitioners had to rely mainly on their own experience and personal preferences to guide them when selecting diagnostic models and treatments. Nowadays, however, there are therapies for a large number of well-defined psychiatric disorders whose effectiveness has been proven in randomised, controlled clinical studies. It has been established that many psychiatric disorders can be effectively treated by more than one therapy, for example, in the case of depressive or panic disorders. Guidelines for treatment are preferably 'evidence-based': they are based on knowledge of the effects of treatment and risks that have been revealed by scientific research, and order them according to the standard of the available evidence. The practical knowledge of care workers and experience-based knowledge of patients and their acquaintances may only be applied if such knowledge is unavailable or inadequate (practice-based).

The increasing international popularity of guidelines is largely due to the high expectations there are of working with them. The anticipated effects include better treatment outcomes, increased cost-effectiveness, better integration of newly acquired treatment insights in everyday practice, fewer unnecessary variations in treatment and the opportunity to compare treatment results more objectively. [1]

Controlled treatment studies and guidelines

Various controlled treatment studies would indeed seem to indicate that mental health care treatment following evidence-based guidelines or decision trees can produce better treatment outcomes than the standard treatments. In the United States, the major, multicentre Texas Medication Algorithm Project, which is subsidized by the National Institute of Mental Health, was the first to compare the usual pharmacological treatments for mood and other disorders with treatments based on a detailed evidence-based decision tree or algorithm in mental health care practice. In a prospective study conducted in 14 psychiatric clinics, the short- and long-term effects of the usual pharmacological treatment of patients with a depressive disorder were compared with a treatment that progressed along the lines of an extensive, stepped-care, evidence-based decision tree. Patients whose treatment was based on a decision tree seemed to show a significantly greater reduction of symptoms and a significantly

greater improvement of social functioning than patients who had received the standard treatment. [2,3]

A European equivalent of the Texas Medication Algorithm Project is the German Berlin Algorithm Project, which compares protocolised and non-protocolised treatments of clinical patients with a unipolar or bipolar depression. [2] The first phase of the Berlin Algorithm Project only involved a comparative study at one university centre in Berlin, but the project has since been extended to become a national, randomized and controlled, multicentre study in which the effects of two decision trees are compared with the usual pharmacological treatment. The results of the first phase once more indicated that there was a much higher chance of improvement and recovery among patients whose treatment was based on a decision tree. At the same time, however, there was also a significantly higher percentage of drop-outs in this group (45% as opposed to 16% of the group receiving the standard treatments) because practitioners often failed to keep to the protocol and patients did not tolerate the medication regime well [2,4].

Guidelines and everyday treatment in practice

When considering the favourable results produced by working according to decision trees, it is necessary to make an important observation: it appears that it is difficult to always work according to the guidelines and programs of care in everyday practice when removed from the watchful gaze of researchers. In an extensive review, Bauer found 41 treatment studies in the field of mental health care in which specific treatment guidelines were used, and whereby some type of information concerning the extent to which practitioners followed the guidelines was available [5]. Of these 41 studies, 26 were conducted after guidelines had been implemented, and six studies involved a comparison between the situation before and after the implementation of guidelines. Nine studies were set up in a controlled manner (with more interference from the researchers) and compared the effect of certain interventions focussed on the application of guidelines at the level of the patient (psycho-education), practitioner (training) or organisation (automation) with that of a "basic" implementation of guidelines. Bauer stated that the guidelines were followed "adequately" in accordance with the qualitative criteria stipulated by the authors of the studies in only 27% of the 26 naturalistic studies. By contrast, the guidelines were applied "adequately" in 67% of the controlled studies,

according to Bauer. A precise definition of "adequately" was, as Bauer himself noted, problematic in this case. Most of the studies found that the interventions to support the guideline had an effect.
Against this background, Grol and Grimshaw stated that special interventions at several levels, which must be of a long-term nature, are necessary for the successful implementation of guidelines in everyday practice. They also advocated defining process indicators that would make it possible to accurately measure and follow the degree to which guidelines are implemented in practice over time [6]. The Texas Algorithm Project also established that there are currently no generally accepted standards to establish the extent to which practitioners keep to the prescribed guidelines and decision trees in clinical practice.

The Dutch situation: programs of care

Guidelines are often used to structure programs of care in GGZ mental health care institutions in the Netherlands. In programs of care, the order and combinations of treatments are worked out in more detail and established within a broader context.
A program of care can be defined as a set of agreements about the provision of care to a specified target group, resulting in a common framework for organizations, professional and clients. [7] Programs of care describe a cohesive range of help for the target group. They do not merely address the question of what should be done and when, but also define the way in which help is given, such as for example, by which professional, in which setting and how often. [8] Programs of care are generally set up according to the model of "stepped care". Initially, the least taxing, least expensive and shortest form of treatment is applied, and the next step - usually a more intensive and therefore more taxing and often more expensive form of treatment - is only taken if this form of intervention does not have sufficient effect.
Mental health institute Rivierduinen has developed stepped-care care programs for mood, anxiety disorders, somatoform, psychotic and personality disorders. The various steps set out in decision trees can also be found on the intranet and Internet (www.lumc.nl; for an example of a decision tree see Figure 1). These decision trees describe which considerations could lead to a next step or module in the treatment. The separate steps are mainly based on evidence-based insights. A step is characterized by a predetermined duration,

for example six weeks of pharmacotherapy or three months of cognitive behavioral therapy. Various programs of care have been developed within GGZ mental health care institutes in recent years, not only for target groups defined on the basis of psychiatric diagnoses such as schizophrenia and mood disorders, but also on the basis of experiences or backgrounds shared by patients, such as women who have been the victim of sexual abuse.

In addition to their scientific basis concerned with treatment, programs of care also have a political background. After all, they were born of the attempt to keep the ever-rising costs of health care under control. Furthermore, according to policy makers, care must always be guided more by demand from the patients, than by supply. It must also become more transparent and display greater coherency. At the end of the 1980s, the Dekker Commission initiated this by stimulating the development of "integral care management". This form of care management can be described as "designing and steering care packages that mutually connect (parts of) organisations and integrate them to form a coherent unit of health care provision to groups of patients, with the goal of offering them the right care in the right place at the right time, unhindered by divisions between healthcare providers, organisations and financing flows". [9] Setting up transmural care projects and defining care chains and programs of care are examples of integral care management.

Programs of care and everyday treatment in practice

Before one can work in accordance with programs of care, they must first be implemented in practice. In this context, implementation means "the process-based and systematic implementation of innovations and/or changes whose value has been proven, with the ultimate aim of giving them a structural place in professional practice, the functioning of an organisation or in the health care structure" [10].

Naturally, Dutch institutions for mental health care also consider their programs of care based on evidence-based guidelines as a potential instrument for optimising quality and efficiency within the institution. According to GGZ Netherlands, programs of care have either been implemented or there are plans to do so in the near future in 95% of the regions (www.ggznederland.nl/zorg/index.html).

However, there is still practically no information on the degree to which programs of care and the protocolised forms of treatment that they incorporate

- in other words, the direct care to patients - are actually applied in professional dealings and what the results were.
To obtain a better impression of the extent to which programs of care are currently being applied, we sent a short e-mail survey to the Board of Directors of 38 GGZ institutions. A total of 28 institutions (74%) responded within 4 weeks.
In order to research whether there might be differences between institutions that had or had not responded, we searched the websites of the institutions that did not respond, using search terms such as "program of care", "guidelines" and "protocol". There were no apparent differences between the responders and non-responders concerning the description of programs of care on the various internet-sites.
While most GGZ institutions indicated that they work mainly with evidence-based programs of care and care guidelines in one way or another, a substantial proportion does not yet do so (table 1). Institutions that claimed to work according to a program of care were also asked about the percentage of patients within the institution who are assigned to a program of care and the percentage of patients whose treatment results were systematically measured. Patients should be assigned to a program of care in all institutions, which use them, but many institutions stated that the extent to which programs of care are actually applied in practice is unclear. A similar lack of clarity seems to exist around the actual systematic measurement of the treatment results.
All this seems to indicate that there is still a lack of hard facts on the extent of implementation at various levels, particularly the primary process, patient care. As far as we know, there are currently no accurate instruments either in the Netherlands or abroad that can be used to determine the extent to which programs of care are implemented at the level of direct care.
Instruments that can quantitatively establish the implementation of programs of care at various levels offer a great number of potential benefits. For example, their use could help practitioners to obtain an impression of the degree to which they work with programs of care and what this means for their patients. An implementation tool could help teams and their managers to define bottlenecks during implementation. Furthermore, objective measurements of the implementation can be linked to patient characteristics to give more insight into the factors determining the extent to which it is actually possible to treat patients according to a program of care. Instruments can also give

the program designers information about the workability of the program and provide suggestions for adjustments and improvements. Finally, facts about the extent of implementation of programs of care at diverse levels can be helpful when negotiating with health care insurers.

Conclusion and recommendations

The positive expectations regarding working according to guidelines, which have been developed as programs of care in the Netherlands, have been confirmed in controlled treatment studies. However, it is not currently possible to establish with any certainty whether or not these expectations can be realised in everyday practice. An important condition for being able to demonstrate the benefits of working according to guidelines is the development of an instrument that could objectify the degree to which they are used in practice. Only then will it be possible to prove whether evidence-based treatments lead to better treatment outcomes in everyday practice.

Rivierduinen has been working on developing a tool to measure implementation since 2004. Primarily, research is being conducted into the extent to which programs of care have been implemented for mood, anxiety and somatoform disorders at the primary process and patient care levels, and the patient and therapist factors that influence this. We expect to be able to publish the first data about the developed instrument and measured results shortly. Our ultimate goal is to develop an instrument so that it will acquire a more generally applicable nature, making it suitable for other programs of care and possibly also for other GGZ institutions.

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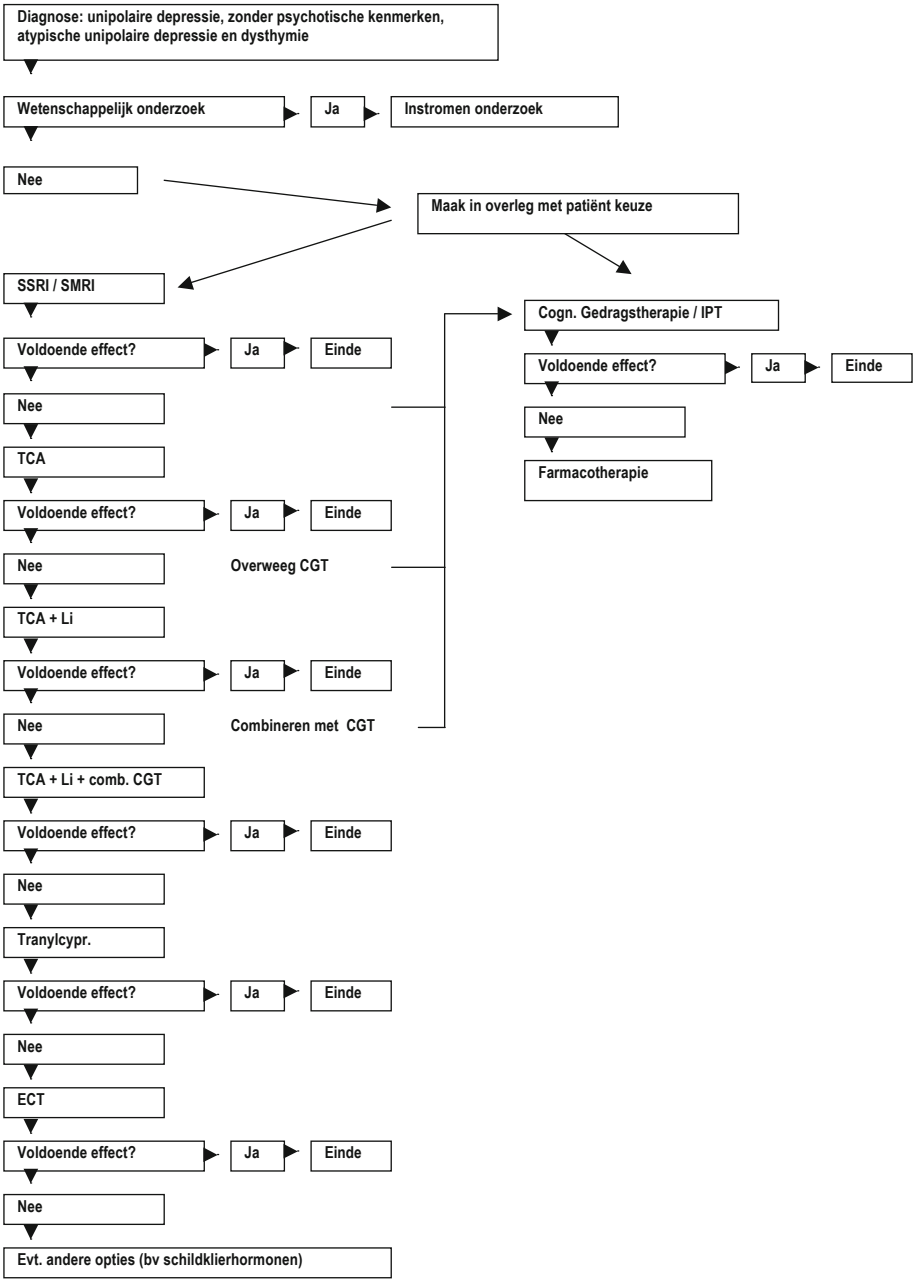
Table 1

Are programmes of care applied in your institution?	No	Yes		
	32%	68%		
If so: what form do these programmes of care take?		No	Yes	
Employees are organised according to care guidelines		42%	58%	
Patients are assigned to programmes of care		0%	100%	
Do the programmes of care incorporate evidence-based guidelines?		16%	84%	
Are diagnoses made on the basis of structured diagnostic interviews?		21%	79%	
Are the final results of the treatment measured?		45%	55%	
Is this done using standardised questionnaires?			18%	82%

Figure 1


Diagnose: unipolaire depressie, zonder psychotische kenmerken, atypische unipolaire depressie en dysthymie
Wetenschappelijk onderzoek
Ja
Instromen onderzoek
Nee
Maak in overleg met patiënt keuze
SSRI / SMRI
Voldoende effect?
Ja
Einde
Nee
TCA
Voldoende effect?
Ja
Einde
Nee
Overweeg CGT
TCA + Li
Voldoende effect?
Ja
Einde
Nee
Combineren met CGT
TCA + Li + comb. CGT
Voldoende effect?
Ja
Einde
Nee
Tranylcypr.
Voldoende effect?
Ja
Einde
Nee
ECT
Voldoende effect?
Ja
Einde
Nee
Evt. andere opties (bv schildklierhormonen)
Cogn. Gedragstherapie / IPT
Voldoende effect?
Ja
Einde
Nee
Farmacotherapie