

# Chapter 9

## Discussion



### Introduction

In this chapter, the major findings of this thesis will be presented. The introduction summarizes the findings of scientific research into the application of ROM in general psychiatry. The first subject discussed is the importance of these findings from both a theoretical and clinical point of view. Next, the strong and weak points of the study will be discussed, followed by recommendations for the appropriate use of ROM in daily clinical practice. Finally, a number of suggestions are made for future study.

### Principal findings

**Based on Donebedian's quality paradigm (1966, 1988, 2005)**, described in the first chapter, this thesis examines four questions (see Chapter 1):

- 1) Which outcome measures have been developed and tested psychometrically, including their capacity to measure change, for use in The Netherlands that could be adopted for Routine Outcome Monitoring (Chapters 2, 3, and 4)?
- 2) How can Routine Outcome Monitoring effectively be implemented and embedded within the structure and processes of general psychiatric practice in The Netherlands (Chapter 6)?
- 3) What is the effect of Routine Outcome Monitoring on the general psychiatric setting, as described in Chapter 6 on outcomes of treatment, if feedback is assured by a standardized protocol, using paper and pencil recordings (Chapter 7)?
- 4) What is the attitude of patients and clinicians, respectively, to Routine Outcome Monitoring (Chapter 8)?

The results of these questions are presented in Chapters 2 to 8.

A combination of the Health of the Nation Outcome Scales (HoNOS) (Wing et al., 1996, 1998; Mulder et al., 2004) and the Outcome Questionnaire (OQ) (Lambert et al., 2001a, 2001b; De Beurs et al., 2005; Jong et al., 2007) – an expert-opinion and a self-rating scale, respectively – appear to offer the greatest utility for daily clinical practice; this was the conclusion of Chapter 2. These measures not only cover the broadest range of disorders but also describe patient difficulties regarding their social role, performance, and interpersonal problems. This view led to the **HORVAN Study, a study of the "HoNOS, OQ ROM Validity in The Netherlands."** The applicability of these measures in clinical care, as suggested from the literature

review, was confirmed through our empirical research and discussed in Chapter 3. The HoNOS also can be used to make decisions in clinical practice, including providing guidance as to how treatment can be altered and improved, which was discussed in Chapter 4.

The first four chapters cover Part I of the HORVAN Study. The second part of the HORVAN Study is introduced in Chapter 5, where we describe how the randomized clinical trial design was transformed into a naturalistic design that offered feedback to professionals. Significant environmental factors, internal and external to the organization, necessitated the researcher to make this change during the study.

Chapter 6 describes the clinical-care processes and clarifies the responsibilities of key participants. A strength and weakness analysis was used to inform an operations-management approach for ROM in healthcare; this comprised analysis, design, planning, and monitoring of all the steps necessary to provide the patient with quality services. Operations-management is essential in offering support to the clinical-care process (Vissers & Beech, 2005). The procedure is one **in which the patient's needs are identified, with particular attention to the most cost-effective and efficient forms of treatment**. In effect, we combined clinical-care processes with operations-management. The number of personnel required was carefully planned in a manner that sought to contribute to quality of treatment, using the latest insights into treatment available.

An operation-management approach also can assist in implementing and embedding innovation in a healthcare institution; this is achieved by (1) employing a participative design approach (Vissers & De Vries, 2005); (2) focusing the attention of the whole organization on the process and monitoring of the delivery of services; and (3) appointing a clinical professional to serve in the role of process manager.

Chapter 7 describes a literature study and empirical research into the effect of feedback on regular psychiatric practice. The effect of feedback within general psychiatry has been described, though in a limited way with few systematic reviews (Knaup et al., 2009; Carlier et al., 2010). How feedback was implemented and the means by which it was given was not mentioned in any of the publications we examined.

In psychotherapy research, there have been experiments using the prediction

model of Lambert and colleagues for quite some time. They used ROM in a psychotherapeutic setting with a group of patients with predominately “personal concerns” (less severe conditions); the feedback was accompanied by various enhancements, such as a warning signal, recommendations for modifying treatment, a clinical support tool (CST) with a decision tree (DT), and immediate electronic feedback (IEF). Their method resulted in significant improvements for the group of patients who deviated from the predicted (desired) behaviors that would be indications of clinical improvement, the so-called Not On Track (NOT) group. This particular study paid little attention to the implementation of feedback such as the training of professionals. Moreover, the actual provision of feedback was not monitored. De Jong (2012) provided the only Dutch study that resembles Lambert’s work and found similar effects for the NOT group.

In our naturalistic study, additional attention was paid to assisting in the implementation of ROM by offering many training sessions (demonstrations), as well as individualized coaching meetings as well as by monitoring the actual provision of feedback by the professionals to their patients. The feedback was delivered according to an explicit protocol. This was one of the first studies in The Netherlands to make the clinical outcomes transparent by providing obligatory (mandatory) feedback, done in a standardized fashion (i.e., by protocol) and monitoring feedback to professionals and patients in a general non-academic psychiatric practice. Twenty-six percent of the patients received this form of feedback. The group of professionals who treated patients in the reflection (review of feedback) group had a minimally greater positive effect than the care-as-usual group and obligatory (mandatory) feedback group. In fact, obligatory (mandatory) feedback had a negative effect on the willingness of professionals to cooperate with ROM. The additional monitoring seemed to be counterproductive. Professionals do not automatically accept ROM as part of the treatment (Chapter 8). It is crucial to identify the conditions that help professionals to adopt ROM and conditions that interfere in this process. Lambert and colleagues created an atmosphere of minimal control and intrusion into the treatment process, which was helpful in engaging professionals in work of outcomes assessment (Lambert et al., 2001; Hawkins et al., 2004).

Chapter 8 describes an empirical study into the attitudes of professionals and patients. Creating a strong, positive foundation for using ROM is essential – and is directly related to the attitudes of professionals and patients towards ROM. We developed a tool to specifically measure the attitude of professionals and patients towards ROM. During the second part of the HORVAN Study, we encountered

negative attitudes on the part of professionals towards ROM, as did Garland et al. (2003) and Meehan et al. (2006). Patients, on the other hand, appeared to be more open and better disposed toward ROM. They could see how ROM could improve communication between professionals and patients.

### Discussion

**Based on Donabedian's three quality domains (1966, 1988, 2005)** – process, structure, and outcome – the introduction of Routine Outcome Monitoring in a general psychiatric outpatient clinic was studied in HORVAN, Parts I and II. Two ROM broad spectrum outcome measures, the HoNOS and the OQ, were found to be effective for ROM. These measures, when done together, were found to be useful with patients having severe mental illnesses (SMI), as well as with those whose illnesses were not as severe (the N-SMI group). Each measure complements the other; in addition, measurement was possible at any point during treatment. For the optimal integration of ROM within routine clinical treatment, clinicians must be convinced of its potential benefits and not be distracted by operational-management challenges in their environment.

An operation-management approach assists in adoption and sustaining of ROM activities by virtue of its participative design, the ongoing monitoring process, and having a clinician as process manager. As was discussed in Chapter 8, clinicians do not appear to have much faith in the benefits of ROM. While the attitudes of clinicians towards ROM were negative, that of the patients was positive.

In order to employ ROM in clinical care, it is also necessary to examine its effect on patient outcomes, the third quality domain. Doing so is enabled by providing feedback to clinicians and patients, and essential. The effect of feedback during treatment has been reported in various studies as both positive and negative. According to empirical research described in Chapter 7, no positive effect on treatment was found when obligatory feedback was provided in a protocolled fashion in a standard psychiatric outpatient setting. However, there was slightly better performance on outcome measures in the group where clinicians had access to treatment outcomes of their patients and filled in several questionnaires that reflected upon the treatment process.

More research into the three quality domains of ROM is recommended if it is to become a fundamental part of clinical care.

### *Clinically relevant and valid points*

In the field study discussed earlier, various facets of the use of ROM were examined in one of the first scientific studies of ROM in healthcare in The Netherlands, the HORVAN Study. This study examined the process of validating and implementing outcome measurement instruments when ROM was introduced in a general mental healthcare setting. The aim of the study was to ascertain the effect of ROM on the outcomes of treatment in Dutch psychiatry. The study has notable points to consider for future research into ROM. The study, moreover, is clinically relevant because ROM is currently used in The Netherlands as a common means of improving the quality of treatment in the domains described by Donabedian (1966, 1988, 2005). However, Sytema et al. (2011) found that there was insufficient proof that ROM effectively improves quality and efficiency. The poor results of the HORVAN Study Part II are in line of Sytema et al., (2012), and makes it even more important to be judicious regarding the efficiency of ROM in (Dutch) mental healthcare. It cannot be ignored that these results are possibly correlated with a partial loss of professional autonomy. Too much interference has a negative effect on outcome (Chapter 8).

The current unpopularity of ROM in The Netherlands for mental healthcare services makes the HORVAN Study even more relevant, and potentially to various participants in the care industry. This particular research was carried out in a general psychiatric environment, aimed specifically at daily practice.

The study focused on the implementation of ROM methodology and embedding it into the processes of clinical care. Doing so required the organization of the clinical-care process to be examined. We saw shortcomings in organization performance as challenges in the organization adapting to external and internal demands, and in its receptivity to innovation. Both the qualitative and reflective dimensions of the study of the structure of the organization (Chapter 6), as well as the empirical study of the attitudes of clinicians and patients (Chapter 8), provided insights. One clear example was that clinicians must have confidence in ROM for its implementation to succeed.

During the study it was also important that feedback be provided at regular intervals. The **clinician must share information on the patient's progress with the patient**. Training sessions (demonstrations) as well as group and individual coaching sessions on the use of outcome measures and ROM were provided in order to foster clinician ownership of the feedback process. The feedback also was controlled by protocols and monitored.

### *Social relevance*

At present, one reason that ROM is being introduced nationally is for insurers to be able to use ROM to assign payment according to desired results. The mental healthcare sector now faces this fact, yet it has been observed that there is little or no consideration made for the various complicating factors that influence successful implementation and the attitudes of clinicians and patients.

The HORVAN Study, Part II, carried out in an independent mental healthcare institute without a scientific tradition, did validate and implement ROM. The study showed, however, that the process of change is a complex one. Various factors that influence the implementation process were included in this study: the management of implementation, the involvement of clinicians, the influence of feedback, including its type and frequency, the impact of change at all levels within the organization and during all phases of the treatment process, and the measures used. Information obtained from this study offers important insights into how to implement complex and demanding innovations in an open and effective manner. Further research into the effect of these factors is recommended.

### *Methodological limitations*

The study experienced a number of issues:

First, the RCT plan required discontinuation due to internal and external organizational factors, and was changed to a more realistic field study in The Netherlands. Second, the assessment tools were limited to a few generic, broad-spectrum outcome measures. Specific outcome instruments that could provide information about particular psychiatric disorders were not part of this study. The use of disorder-specific measures, and the added value these may provide, has not yet been reported to any great extent; they are currently being investigated at the Leiden University. A first presentation of this work now available is the dissertation by van Noorden (2012). Various outcome measures have, however, been implemented in the care of adults, elderly, and in child and youth psychiatry, though without research on this work.

A third issue is that this empirical study represents a preliminary investigation into the problems of implementation. It centered on the attitudes of clinicians and patients. It is now clear that it is necessary to create a strong and positive **foundation in clinicians' perceptions of the value of ROM. Operation-**

management analysis also showed that other important factors, such as a participative design and the involvement of the clinician as the process manager, were not been examined. Research into these activities remains essential.

A fourth issue of this study was that the research took place in a general psychiatric outpatient clinic where mild psychiatric disorders, such as anxiety and mood disorders, are treated. While initially patients with psychotic disorders and addictions were included, our analysis showed that these two groups were too small to provide any significant conclusions. Patients with bipolar 1 and eating disorders were not studied, nor were patients with personality disorders. This study did include co-morbidity in the form of anxiety conditions combined with depression, and vice versa.

A fifth issue **is the study's setting: an outpatient clinic. In an emergency admissions department, during chronic long-term treatment or with treatment in a general or a psychiatric hospital, quite different problems occur** (Buwalda et al., 2011) with regard to administering ROM measurements, follow-up assessment, and the influence of co-morbidity. Research aimed at settings and clinical disorders level is required. Every setting and each disorder can be informed by the use of specific outcome measures, such as in forensic psychiatry, addiction psychiatry, and the above-mentioned psychiatric institutes.

A sixth issue concerns the limited capacity to generalize based on patient-specific **factors, including, for example, stage of life. The stage of the patient's life needs to determine the choice of the outcome measure used. For children, for example, there are measures that can be used at various stages of the child's development** (CBCL) and there is also an adapted version of the HoNOS. For elderly patients with age-related special disorders, different measures are required.

A seventh issue in the study was described in Chapter 7, namely that while this was a rigorous study, it was not a Randomized Controlled Trial (RCT). Due to the small number of patients, furthermore, it was not possible to achieve significant findings, as did Lambert and De Jong.

The eighth issue in this study, and other studies, is that principally only one group of professionals was studied: psychologists.

*Future research*

To validate the selection of outcome measures in ROM, it is essential that further research be carried out about certain generic measures; such research could include the application of the HoNOS for personality disorders, eating disorders, bipolar disorders, and other conditions. It is important, as well, to determine how the HoNOS (or other measures) is useful in clinical practice for the disorders mentioned and how measuring clinically significant change can contribute to making decisions on treatment. Preference should be given to the examination of a large group of patients with the same disorder in a Randomized Controlled Trial format, if possible. In this way, the method used by Lambert (2001, 2002, and later) can be analyzed to determine whether feedback contributes to improving outcomes of treatment, for example, in the NOT group of patients.

Operationally, it is advisable to study various methods of implementation and the ways in which they are administered. Some of these strategies include a participative design method that includes all those involved in the implementation process, the effect of periodically monitoring the implementation, and the appointment of a clinician as process manager. Furthermore, research is needed to inform the creation of the protocols used to train clinicians and build a positive foundation for ROM.

The effect of clinician attitudes towards ROM on the results of treatment is another important subject of research. In her study, De Jong (2012) compared **clinicians with a preference for what she called “external feedback” to those with a preference for “internal feedback.”** She found that clinicians with a preference for external feedback had a more positive attitude towards ROM than those with an internal feedback preference. Clinician autonomy showed a positive effect on the outcomes of treatment. More research is needed into the effect of preserving a certain level the autonomy in clinicians during the implementation and ongoing use of ROM.

Research into the attitude towards feedback of student psychiatrists and student clinical psychologists, when feedback is given to them in the early stages of their training, could show a more open and flexible view on the use of ROM.

**It is important to study the influence of the patient’s attitude on the implementation of ROM** in order to help motivate the clinician to use shared decision-making (Deegan et al., 2006) and to improve communication with patients. It is also important to study the differences among groups of

professionals, such as social workers, psychologists, psychiatrists, and other mental health professionals, towards ROM.

Another subject for examination, beyond the scope of this study, is the use of ROM outcomes as benchmarks for third parties, such as insurers and the government. The use of outcomes by third parties for benchmarking purposes can produce distrust in clinicians. Van Os et al. (2012) have proposed that the use of ROM data for benchmarking is “**scientifically not founded, not validated, and not ethical** due to a number of unavoidable methodological problems: confounding bias, combination of measures, **and a low sensitivity.**” **On the basis** of this view, research is needed to achieve reliable, credible benchmarking. Small projects should be undertaken to show how implementation of ROM can be done in a feasible and meaningful way. These projects could be used to guide the national implementation process. At the same time, it is important not to create enormous databases, without scientific evidence for their need, and to expend time and money for data-mining.

**The original aim of ROM, that is to evaluate the patient’s progress, cannot be ignored.** The patient and his or her treatment are central to the ROM process. Quality medical care strives to improve the quality of treatment according to **Donabedian’s domains (1966, 1988, 2005)** and to assure that there is good value for money spent, with information being transparent and the work cost-effective.

Routine Outcome Monitoring and better communication with clinicians is welcomed and appreciated by patients. Because of the relationship between patient levels of satisfaction and the results of treatment achieved with ROM, there is great opportunity for integrating clinical care, patient satisfaction, and ROM. Yet, the words of warning by Van Os (2012), mentioned above, must be heeded. Benchmarking may be theoretically possible but should only be done with the greatest care and only take place when there are sufficient scientific grounds for its value.

Important questions are still to be answered regarding Routine Outcome Monitoring:

- Is the current organization of ROM clinically and administratively sufficiently efficient to contribute to a better mental healthcare?
- Can ROM enhance the effectiveness of the treatment?

- How can using ROM address the need for professional autonomy?

These questions illustrate how much research and work must be done before ROM is a worthwhile innovation to be implemented in regular mental healthcare services.

### References

Buwalda VJA, Draisma S, Smit JH, Swinkels JA, van Tilburg W. Validering van twee meetinstrumenten voor Routine Outcome Monitoring in de psychiatrie: de HORVAN studie. Tijdschr Psychiatri 2011; 53: 715-726.

Buwalda VJA, Nugter MA, Swinkels JA, Mulder CL, red. Praktijkboek ROM in de ggz. Een leidraad voor gebruik en implementatie van meetinstrumenten. De Tijdstroom, Utrecht, 2011.

Callaly T, Hyland M, Coombs T, Trauer T. Routine outcome measurement in public mental health: results of a clinician survey. Aust Health Rew 2006; 30: 164-173

Carlier IVE, Meuldijk D, Van Vliet IM, Van Fennema E, Van der Wee NJA, Zitman FG. Routine outcome monitoring and feedback on physical or mental health status: evidence and theory. J Eval Clin Pract 2010: 1-7.

De Beurs E, Den Hollander-Gijsman M, Buwalda VJA, Trijsburg W, Zitman F. De Outcome Questionnaire (OQ45): psychodiagnostisch gereedschap. De Psycholoog 2005; 40: 393-400.

Deegan PE, Drake RE. Shared decision making and medication management in the recovery process. Psychiatr Serv 2006; 57: 1636-1639.

De Jong K, Nugter MA, Polak MG, Wagenborg JEA, Spinhoven P, Heiser W. The Outcome Questionnaire (OQ-45) in a Dutch Population: A Cross-Cultural Validation. Clin Psychol Psychother 2007; 14: 288-301.

De Jong K. A chance for change: Building an outcome monitoring feedback system for outcome mental healthcare. Dissertation Leiden University 2012.

De Jong. **De rol van de behandelaar: de 'vergeten' factor in ROM.** Tijdschr Psychiatri 2012; 54: 197-201.

Donabedian A. The Quality of Care. How Can It Be Assessed? JAMA, 1988; 260(12):1743-1748.

Donabedian A. Evaluating the Quality of Medical Care. *The Milbank Quarterly* 2005; 83: 691-729. Reprint from the *Milbank Memorial Fund Quarterly*, 1966; 44: 166-203.

Garland AF, Kruse M, Aarons GA. **Clinicians and outcome measurement: what's the uses?** *J Behav Health Serv Res* 2003; 30: 393-405.

Hatfield D, McCullough L, Frantz SHB, Krieger K. Do we Know When our Clients **Get Worse? An Investigation of Therapists' Ability to Detect** Negative Client Change. *Clin Psychol Psychother* 2010; 17: 25-32.

Jacobson NS, Truax P. Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *J Consult Clin Psychol* 1991; 59: 12-19.

Knaup C, Koesters M, Schoefer D, Becker Th, Puschner B. Effect of feedback of treatment outcome in specialist mental healthcare: meta-analysis. *Br J Psychiatr* 2009; 195: 15-22.

Lambert MJ, Whipple JL, Smart DW, Vermeersch DA, Nielsen SL, Hawkins EJ. The effects of providing therapists with feedback on patient progress during psychotherapy: Are outcomes enhanced? *Psychother Res* 2001b; 11(1): 49-68.

Lambert MJ, Hansen NB, Finch AE. Patient-focused research: using patient outcome data to enhance treatment effects. *J Consult Clin Psychol* 2001a; 69: 159-172.

Meehan T, McCombes S, Hatzipetrou L, Catchpoole R. Introduction of routine outcome measures: staff reactions and issues for consideration. *J Psychiatr Ment Health Nurs* 2006; 13: 581-587.

Mulder CL, Staring ABP, Loos J, Buwalda VJA, Kuijpers D, Sytema S, e.a. De health **of the nation outcome scale (HoNOS) als 'routine outcome assessment'**. *Tijdschr Psychiatr* 2004; 46: 274-284.

Sapyta J, Riemer M, Bickman L. Feedback to clinicians: Theory, research, and practice. *J Clin Psychol* 2005; 61(2): 145-153.

Shimokawa K, Lambert MJ, Smart DW. Enhancing Treatment Outcome of Patients at Risk of Treatment Failure: Meta-Analytic and Mega-Analytic Review of a Psychotherapy Quality Assurance System, *Journal of Consulting and Clinical Psychology* 2010; 78; 3: 298–311.

Sperry L. Treatment Outcomes: An Overview. *Treatment Outcomes in Clinical Practice. Psychiatric Annals* 1997;27: 95-99.

Sytema S, Nugter MA, Mulder CL. Routine outcome monitoring en onderzoek. In: Buwalda VJA, Nugter MA, Swinkels JA, Mulder CL, red. *Praktijkboek ROM in de ggz. Een leidraad voor gebruik en implementatie van meetinstrumenten. De Tijdstroom, Utrecht, 2011: 173-188.*

Trauer T, Callaly, Herrman H. Attitudes of mental health staff to routine outcome measurement. *J Mental Health* 2009a 18: 288-296.

Van Os J, Kahn R, Denys D, Schoevers R, Beekman ATF, Hoogendijk WJG, et.al. ROM: gedragsnorm of dwangmaatregel? Overwegingen bij het themanummer over routine outcome monitoring. *Tijdschr Psychiatr* 2012; 54: 245 – 253.

Vissers JMH & Beech R (Eds.). *Health Operations Management, patient flow logistics in Healthcare.* Routledge, London and New York, 2005.

Vissers JMH & de Vries G. *Sleutelen aan Zorgprocessen Een visie op Zorglogistieke Bedrijfsvoering.* Oratie bij de aanvaarding van het ambt van hoogleraar Zorglogistieke Bedrijfsvoering bij het Instituut Beleid en Management Gezondheidszorg van het Erasmus MC, faculteit van de Erasmus Universiteit te Rotterdam, 2005.

Wing JK, Beevor AS, Curtis RH, Park BG, Hadden S, Burns H. Health of the Nations Outcome Scales (HoNOS): research and development. *Br J Psychiatry* 1998; 172: 11-8.

Wing JK, Curtis RH, Beevor AS. *HoNOS. Health of the Nation Outcome Scales. Report on research and development.* London: College Research Unit 1996.

