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**Author:** Orden, M.L. van  
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Chapter 9

Introduction

“Innovation is the ability to see change as an opportunity – not a threat”
Steve Jobs
1 General introduction

In this thesis two major changes in the organization of mental health care delivery are explored, collaborative mental health care and the integration of eHealth in collaborative care practice. These changes resulted from developments in health care, strongly influenced by political and financial factors, societal changes and last but not least the changing “patient-therapist” relationship. The most important influences that led to changes in the organization of mental health care delivery will be described in this introduction.

Change involves renouncing the security of the known and taking risks by stepping into the unknown. It is an inevitable part of life. Depending on the subject and the motive, a process of change can have a minor or major impact on an individual person, as well as on an organization. Proper formulation and planning can enhance the chance of positive results, but even then, is not always easy to win acceptance and to have change incorporated. The degree and duration of resistance to change in organizations as well as the actual success or failure of implementing such change is linked to how well the process is managed. According to Gabel (1), strategies to support the implementation of organizational change can be envisioned within three dimensions: (1) accurate assessment of ongoing and new needs from different perspectives, (2) understanding and helping individuals and groups to work through the different emotional stages in adapting to the change and (3) paying attention to individual and group reactions and attitudes while implementing and monitoring the restructuring. Such restructuring can be accompanied by stress, anxiety, as well as productive and innovative processes (1). A few (resistant) individuals may be able to block the efforts of others who are willing to change. On the other hand, a few motivated individuals who desire to change can motivate and lead others who otherwise remain passive in the face of the unknown.

In 2003, when the preparations for this thesis started thorough evidence about the effectiveness and related costs (efficiency) of collaborative care as well as evidence on whether the results of collaborative care could have been produced at a lower cost compared to the alternatives (cost-effectiveness) was lacking. E-mental health care was still in its’ infancy. The data collection for the cluster randomized study started at the end of 2003, included a 7-year follow-up period, and ended in the late 2009.

1.1 Developments in mental health care delivery in the last 50 years

Mental health care reform has been dominated by deinstitutionalization since the 1950s by means of the replacement of inpatient care by stimulating community mental health care (2), outpatient and day-care care facilities (3). Three main reasons for this
movement in that period were: the belief that psychiatric hospitals were cruel and inhumane, the hope that new psychopharmacological treatments would be developed that could cure the illness and the aim to save money (4). Similarly, the concept of early detection and early treatment gained popularity. Early intervention is perceived to be fundamental in preventing mental disorders to prevent worsening of symptoms and improving outcomes. The earlier an appropriate treatment is initiated, the better the prognosis, according to the World Health Organization (5).

From the 1960s until the turn of the millennium, health spending in the OECD countries (members of the Organization for Economic Co-operation and Development; (6)) increased. To restrain rising expenditures on mental health care, a reform in different European countries during the 1980s, called the managed market, focused on the use of budgetary incentives to stimulate improved performance. To achieve this, health insurers would contract selectively with health care providers, which in the Netherlands are largely private. This selective contracting by insurers with providers would create a market on the supply side, increase efficiency and raise standards of care (7). Raising the care standards was aimed to be achieved by implementing evidence based-practices. Evidence based medicine is defined as “(…) the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. (…)” (8) pp. 71. Implementation of evidence-based practice, however, proved to be complex and difficult due to organizational structures and commitment factors, indistinctness
about roles and responsibilities, service boundaries as well as the health care policy (9, 10).

The growth in per capita health spending slightly declined in the years from 2001 to 2010 when it stopped completely as a consequence of the global financial and economic crisis in 2008/2009 (11). Meanwhile the undesirable job insecurity and financial consequences of the crisis have been linked to an increase in the risk for psychological and behavioural morbidity (12). In order to make rational decisions in the allocation of scarce resources in the field of health economics, information based on the cost-effectiveness of mental health care was embraced by a growing number of health care policy makers in the late 20th century. Clinical evidence was no longer the primary criterion for accepting and funding new treatments (13).

1.2 Important transitions in the population and mental health care users

Most countries experience a rapid demographic transition. There has been an population increase in developed countries since 1950 and a decline in the number of births combined with an increased life expectancy. Trends of urbanization, international migration and changes in family and household structures have also been observed (14). Along with this demographic transition, the risk for mental disorders is expected to rise (15).

Around the 1980’s an important movement for patient empowerment originated, namely patient councils and user organizations. They became accepted parties in mental health care organization (16). Patient empowerment is also emphasized by the changing terms used for patients in mental health care, pinpointing the changes in their relationship with mental health providers and a shifting power dynamics. From being mental health care patients or clients in need of help, they became consumers or users of mental health care demanding a voice and an increasing say in how services were developed and delivered. And in recent times experts by experience with a relationship with the mental health care provider of equals whereby the provider has acquired his/her knowledge and skills through education and practice and the other by experience (17).

Despite the growing empowerment of patients, mental illness is often negatively labelled -stigmatized- within society, even nowadays. Despite the fact that nearly half of the Dutch population may experience a mental health illness once in their lifetime, there is still a taboo attached to conditions such as depression, anxiety, addiction, and personality disorder (18). ‘Samen sterk zonder stigma’ is an important governmental
organization in the Dutch mental health landscape today that aims to improve mental health literacy in the Netherlands in order to reduce stigma.

The presence of societal and/or self-perceived stigma is one of the possible explanations for the fact that a large part of the population with mental health problems (64% in the Netherlands according to the NEMESIS-study) does not seek treatment (15), while 14% of the global burden of disease has been attributed to neuropsychiatric disorders (19) with unipolar depression being the second leading factor in the disease burden (15). A second explanation that has been discussed in the literature relates to access to mental health care, such as the availability of a mental health care provider in the near surrounding areas or financial barriers due to health insurance coverage. The importance of the latter aspect varies significantly between different countries with different health care systems (20, 21). Patient related factors, like being born in a foreign country, reporting loneliness, receiving little social support and experiencing substantial clinical impairment are shown to be another reason why people in need do not seek treatment (22).

Mental and physical health conditions have been proven to be strongly interwoven. Mental disorders are risk factors for the development of somatic health conditions, and contribute to accidental and non-accidental injuries. Many somatic health conditions increase the risk for mental disorder, or lengthen episodes of mental conditions. The resulting comorbidity complicates help-seeking, diagnosis, the quality of care provided, treatment, and adherence and affects treatment outcomes. Therefore, the integration of mental health care within primary general health care is strongly advocated by researchers (19, 23).

The developments and changes in population, mental health care and mental health care use described in paragraph 1.1 en 1.2 contributed to a major shift in health policies worldwide at the end of the 20th century. The focus was on offering (mental) health care in the natural environment of the patient, as early as possible with collaboration between the (specialized) mental health care sector and the primary care sector. Several models are described that differ in the degree of cooperation between the mental health specialist and the primary care specialists and the degree to which the model focuses on improving their skills and confidence in managing mental health problems (24). The general practitioner has the greatest involvement in the training model. The involvement decreases in the consultation-liaison, collaborative care, and replacement/referral models. The training model involves the provision of knowledge and skills concerning mental health care to the general practitioners. The consultation-liaison model is a variant of the training model, but involves mental health specialists
entering into an ongoing educational relationship with general practitioners, to support them in treating individual patients. Collaborative care can involve aspects of both training and consultation-liaison but also includes the addition of mental health care professionals who work with patients and liaise with primary care clinicians and specialists in order to improve quality of care. In the replacement/referral model, the primary responsibility for the management of the presenting problem is passed to the specialized mental health sector.

1.3 Collaborative mental health care within the stepped care model

Based on examples in the United Kingdom, Australia and Canada, collaborative care programs where mental health care was integrated in general care and community services emerged in the Netherlands in the early 21st century. In these countries, the role of the general practitioner increased as a gatekeeper for the detection of mental health problems and the referral of patients to specialized mental health treatment and delivering of mental health care (25). In the collaborative care program investigated for this thesis, a brief time-limited intervention with a maximum of five sessions was offered over a period of 6 months, based on a time-limited intervention model with a cognitive behavioural approach by community psychiatric nurses or psychologists (26, 27). If indicated by the mental health professional, consultation of the patient by a psychiatrist was possible. The mental health professional had regular face-to-face contacts with the general practitioner. A team of psychiatrists met the mental health professional once a month and conducted regular meetings with the general practitioner. By means of this enhanced collaboration between the general practitioner and the mental health professional, it was expected that common mental disorders could be treated at an earlier stage with fewer resources, thus treating mental health disorders effectively, but more efficiently than under the usual referral and treatment system within specialized mental health care.

Collaborative care treatment in primary care was considered as an early/first step following the principles of the stepped care model. The underlying principle of the stepped care model was that all patients (with non-acute and non-severe mental health conditions) would initially receive the least intensive treatment possible as quickly as possible in the first place. Treatment would only be stepped up for those patients who failed to respond to the initial treatment, with a referral to specialized mental health care (28). The stepped care approach differs ideologically and practically from the matched care concept. From a practical viewpoint, in contrary to stepped care, in the matched care approach the patients are allocated to the most appropriate treatment based on available information at the start of a treatment. As a result of this allocation process, the treatment method, intensity and setting may vary (29). Viewed
ideologically, the difference between the two approaches lies in the persuasion of ability to pinpoint all relevant factors that potentially predict the response to treatment. While in the stepped care approach treatment is offered at an early stage for the broad spectrum of mental health conditions as the first step in treatment, in the matched care approach, being able to include all potential predictors in the allocation process is crucial for quick and appropriate allocation (29). In figure 1, the difference between both approaches is depicted.

The implementation of collaborative care was a considerable change for mental health organizations, and their employees and professionals working in primary care. For those who participated in the collaboration program, the work setting changed. Mental health professionals who formerly worked in the premises of the mental health care institution, now worked and consulted patients in the premises of the general practitioner’s office in close alliance with the general practitioner. General practitioners had to adapt to the mental health professional working in their office. Mental health professionals, who continued their practice in the specialized mental health care setting, expected to be confronted with a changing patient population. While the common mild to medium conditions now would mainly be treated within the primary care sector, only the more severe cases would be referred to specialized care.

The implementation of collaborative care went along with a number of critical questions and remarks from different stakeholders in mental health care:

1. Which organization should provide the mental health professionals working in the general practitioner’s office? There was a concern, that if these professionals were affiliated to a specialized mental health care organization (as was the case in the present study), they could merely siphoning patients into the mental health care organization, like in the replacement/referral model (24). In that case a mental health co-worker who was affiliated to the general practitioner’s practice could be considered as a better alternative.

2. As a consequence of the above mentioned, it was asked who should bear the responsibility for the care delivered in the general practitioner practice. In the case the mental health professional was affiliated to a mental health organization, was the general practitioner responsible or the mental health organization?

3. It was expected that the availability of a mental health professional in the general practitioner practice would lower the threshold for patients to seek help. This expectation raised the question whether this would increase the number of patients treated for very mild psychological symptoms who would otherwise not receive professional treatment because their symptoms would disappear on their own. Or
would this lowered threshold really be a solution for offering professional help to people in need who otherwise would not seek treatment?

4. At that time there was no sound scientific evidence for the effectiveness and efficiency of the stepped care concept as a form of collaborative care in the primary care setting versus referral as usual to a specialized setting. Would this stepped care model only postpone more intensive specialized treatment? And would this consequently result in increased utilization of (specialized) mental health care and subsequent costs?

5. In relation to the above mentioned critical points, there was also debate about the intensity of the short-time treatment offered in the primary care setting. Although most short-time treatments offer between ten and fifteen visits to the patients, no data about the ideal treatment intensity in primary care setting was available.

After experimenting for approximately 10 years with various forms of collaborative mental health care in the Netherlands, wherein the number of programs and their impact on the sector increased substantially, the Dutch government implemented a reorganized mental health care system in 2014 with a split between general “basic” mental health care and “specialized” mental health care. With this new system the Dutch government aimed to offer the appropriate care in the appropriate setting. Treatment of non-acute, non-complex disorders since then has been positioned within the basic care, mainly in various forms of collaborative care programs. More severe patients are treated within the specialized mental health care sector. This reorganization took place after the data collection phase of the study reported in this thesis.

1.4 Integrating health technology in mental health care

Public use of the internet has grown dramatically in the past decade. Only 8% of the Dutch population older than twelve years has never used the internet (30). With the tremendous growth of internet and social devices, technology driven possibilities were integrated in mental health care from the early 21st century. The integration of technology in mental health care was expected to empower patients through enhanced possibilities for self-management, to enrich the patient-professional relationship and to improve the cost-effectiveness of mental health treatments (31-37). There are various forms of e-mental health care for (supporting) treatment of common mental disorders like depression, anxiety disorders, substance dependency with varying results on benefits: un-guided and guided self-help programmes (38-40) blended care, where parts of the treatment are face-to-face contacts between the patient and the therapist and other parts are offered via internet (33, 41) and interventions that are entirely online with online guidance from a therapist (42-44). Furthermore, experimental
interventions like serious games or virtual communities and peer-support groups have been developed and investigated (45, 46).

### 1.5 State of knowledge of the new mental health care environment

In 2005 Bower and Gilbody concluded their review of conceptual models of managing common mental disorders in primary care and their evidence base as follows: “Clearly, insufficient evidence exists to provide a definitive answer as to the clinical effectiveness and cost effectiveness of individual models and their impact on access and equity or to provide a rigorous comparison between models. All the reviews reported problems with the quality of the included studies, and the amount of evidence available for some models (such as consultation-liaison) is limited. Continuing evaluation of these models and new ways of providing them (for example, primary care mental health workers) is essential.” (pp. 841). Meanwhile, extensive studies have been undertaken to examine feasibility, effectiveness and efficiency of (stepped or matched) forms of collaborative care and lately the inclusion of eMental health care. Meta-analyses have proven that collaborative care is more effective than regular care for patients with anxiety disorders (47-49), depression (50-53) and multiple conditions (49). The body of evidence about the efficiency of collaborative care is less convincing (49, 52, 54, 55). In the vast majority of all studies the regular care, to which the collaborative care model is compared, is care coordinated by the general practitioner (in the primary care setting) or sometimes even no mental health treatment at all. Since collaborative care is a service concept that has to prevent unnecessary referral to and treatment within specialized mental health care with effective treatment against reduced costs, comparing the cost-effectiveness of collaborative care to usual specialized mental health care should provide important insights into whether this original aim was achieved.

As described in the above paragraph, there is a growing body of evidence of the favorable results of integrating eHealth in mental health care and the global telemedicine market in Europe is growing fast (56). The enthusiasm for technological innovation around eHealth among policy-makers and health officials has, however, not always been matched by uptake and utilization in practice. There is growing attention for identifying and addressing barriers and facilitators of eHealth implementation (57). Professional resistance to new technologies is cited as a major barrier to progress. Implementing and embedding eHealth involves complex processes of change for individual professionals and patients and for health-care organizations themselves. The European Union has recently argued that implementing eHealth strategies “has almost everywhere proven to be much more complex and time-consuming than initially anticipated” (58).
The gaps in knowledge that I aimed to resolve in this thesis are related to the expectations of policy makers that due to enhanced collaboration between the general practitioner and the mental health professional common mental disorders could be treated at an earlier stage with fewer resources. In other words, is collaborative care for mental health disorders not only more effective, but also more cost-effective in the short and long term in comparison to usual referral and treatment within the specialized mental health care sector? Furthermore, literature and my own experience from participating in the development and implementation of eHealth in the local mental health organization have taught that, although different forms of e-mental health care yield promising results, adoption and uptake is a major problem. I wanted to assess the influence of implementation factors on the mental health professionals’ blended care uptake and the patients’ care utilization.

1.6 Aims and outline of this thesis

The aim of this thesis was a thorough investigation of the expected short and long term benefits of treating patients with common mental disorders within a collaborative care program in primary care within the general practitioner practice as a first step in the stepped care approach compared to the direct regular referral of patients to and treatment within specialized mental health care and the implementation of eHealth on the effectiveness and efficiency of collaborative care.

In chapter 2 the results of an examination of the effectiveness and efficiency of the collaborative care program compared to specialized mental health care and the appreciation of the care by patients and general practitioners are reported. The design of the study was a cluster randomized trial, where the general practitioner practice was the unit of randomization. In the collaborative care condition the general practitioner had a mental health professional who was working in the premises of the general practitioner. If indicated, the mental health professional offered a short behavioural and problem oriented intervention with a maximum of 5 sessions. In the usual care condition the general practitioner continued his usual system of referring patients to specialized mental health care, where the patient received regular treatment, if indicated. The patients who participated in the study automatically belonged to the condition of their referring general practitioner. Participating patients were given follow-ups during one year with four assessments: during referral, 3 months, 6 months and 12 months later. Effectiveness was measured in terms of symptom reduction and efficiency in terms of contacts with the mental health professional.

In chapter 3 I present the results of a cost-effectiveness analysis. The cost assessment was part of the cluster randomized trial we described in chapter two. Costs were
inventoried from the societal perspective, including direct and indirect mental health care costs, other healthcare costs and productivity losses due to health condition. The incremental cost-effectiveness ratio was calculated by relating the total costs to the treatment effects in terms of a decrease in patients’ symptoms in the collaborative care condition versus participants who received the usual specialized mental health care. The uncertainty around the incremental cost-effectiveness ratio was addressed by establishing a cost-effectiveness acceptability curve.

In chapter 4 I investigated whether I was able to detect patient or symptom related characteristics that would predict a priori, during referral, whether a patient would (not) benefit from short-time collaborative care intervention. Was it possible to identify patients beforehand who would need higher treatment intensity than the collaborative intervention and therefore be better referred directly to specialized mental health care? In other words, we wanted to find evidence for the suitability of the stepped collaborative care approach for patients with common mental disorders in general or for an identifiable subgroup only. To answer this question, I performed a post-hoc analysis with the data collected within the cluster randomized trial. Patient and symptom factors were analysed as potential predictors for mental health care use, i.e. number of mental health care contacts.

In chapter 5 the results of the long-term efficiency of the collaborative care program compared to regular specialized mental health care are reported. Therefore, a post-hoc analysis was performed with the data from the cluster randomized trial reported in chapter two. Additional to the data collected within this trial, we collected utilization data from the electronic health record of the local mental health care institution in The Hague and surrounding areas that offered both the collaborative care program and specialized mental health care. The total time frame of the follow-up period was seven years, from 2003 to 2009. I collected information about mental health care contacts, which encompassed all direct patient contacts with a mental health care professional, such as face-to-face visits, telephone contact, e-mail contacts during all received treatments, total treatment duration, treatment termination and the number of new treatments within the follow-up period. The patient group that received collaborative care during the trial period was compared to the group that received regular specialized mental health care on the above mentioned outcome variables five years after referral to care with multi level analysis.

In chapter 6 the effect of implementation of blended collaborative care was investigated. In the blended care variant of the collaborative care program, the treatment is
split into one part that was face-to-face and another part offered through an internet module. The primary goal of offering the blended care variant is to improve the efficiency of the treatment. The design of this study was a naturalistic retrospective analysis of a patient cohort that was offered the blended collaborative care variant in 2014/2015 in combination with a survey research, performed in 2016. The survey was performed among those mental health professionals who offered the blended treatment and systematically targeted factors that inhibit or promote implementation of eHealth. For the retrospective analysis of the patient cohort, data about blended care utilization and outcome data routinely measured within the program by means of routine outcome monitoring was collected. With multi-level analysis, I assessed the influence of implementation factors as perceived by the mental health professional on their blended care uptake and the patients' care utilization.

The last chapter, chapter 7, includes a summary and discussion of the results. I will place the study results in the context of the changing mental health care landscape, address methodological issues and make recommendations for further research and clinical practice.